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THE HINDU NEWSPAPER

05 NOVEMBER 2025

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PCS Special:	05 November 2025
QUIZ	
1.	Dick Cheney, architect of Iraq invasion, dies at 84 इराक आक्रमण के वास्तुकार डिक चेनी का 84 वर्ष की आयु में निधन

Questions and Answers to the previous day's daily quiz: 1. The place and year in which Shakuntala Devi set her Guinness World Record for mental calculation. **Ans: Imperial College London in 1980**

2. This books explains her mental calculation techniques. **Ans:** *Figuring: The Joy of Numbers*

3. The exact product she computed for the record. **Ans: 7,686,369,774,870 × 2,465,099,745,779 = 18,947,668,177,995,426,462,773,730**

4. The constituencies from which she contested the 1980 Lok Sabha elections. **Ans: Bombay South and Medak**

5. The pioneering 1977 book she wrote on LGBTQ+ issues in India. **Ans:** *The World of Homosexuals*

Visual: This actor portrayed Shakuntala Devi. **Ans: Vidya Balan**

Early Birds: C. Saravanan| Siddhartha Viswanathan| Parimal Das| Joseph Nelson| Girvar Singh Chaudhary

QUIZ

Shakuntala Devi sets her Guinness World Record

• On **18 June 1980**, at **Imperial College London (UK)**, Shakuntala Devi multiplied **two randomly selected 13-digit numbers** in just **28 seconds**.
 • The numbers selected were **7,686,369,774,870 × 2,465,099,745,779**, and she gave the correct answer **18,947,668,177,995,426,462,773,730**.
 • This feat was recorded in the **1982 edition** of the Guinness World Records under the category *Fastest Human Computation*.
 • Although achieved in 1980, the official certificate from Guinness was awarded on **30 July 2020**.

Important Concepts & Facts

• **Mental calculation**: The ability to perform arithmetic operations in the mind without external aids (paper, pen, calculator). Shakuntala Devi's record demonstrates exceptional mental calculation ability.
 • The institution involved: **Imperial College London's Department of Computing** randomly selected the numbers for the challenge, ensuring fairness and randomness.
 • Significance: Completing multiplication of two 13-digit numbers in 28 seconds exceeds what many computers of that era might do, highlighting human potential and cognitive excellence.

Historical Background

• Shakuntala Devi was born on **4 November 1929** in **Bangalore (then Kingdom of Mysore)** and was known as the "Human Computer".
 • Her interest in numbers began early: at age 3 she was found memorising cards and by age 6, she was performing arithmetic at the University of Mysore.
 • She travelled internationally, showcasing her calculation skills, culminating in the record-setting attempt in London in 1980.

Recent Updates & Legacy

• On **30 July 2020**, Guinness formally honoured the achievement and awarded the record certificate post-humously.
 • Her life has inspired students and educators alike; she authored books such as *Figuring: The Joy of*

Numbers, making maths more accessible.
 • Her legacy continues in popular culture: her biopic titled *Shakuntala Devi* was released in 2020, starring Vidya Balan, bringing renewed attention to her mathematical feat.

Figuring: The Joy of Numbers

Basic Information

• **Figuring: The Joy of Numbers** is a book authored by **Shakuntala Devi**, first published in **1977**.
 • The book is designed to explain her **mental calculation techniques**, providing insight into how she could perform complex arithmetic mentally at extraordinary speed.
 • It covers **addition, subtraction, multiplication, division, squares, cubes, roots**, and other advanced methods of **mental arithmetic**.
 • The book is written for both enthusiasts and students, aiming to make mathematics **fun and accessible**.

Key Features of the Book

• **Step-by-step methods**: Devi explains shortcuts and tricks for **rapid calculation** without using calculators or pen and paper.
 • **Mathematical puzzles and games**: The book includes examples and exercises to sharpen numerical skills.
 • **Focus on mental agility**: Emphasizes improving **memory, concentration, and analytical thinking** through numbers.
 • **Practical applications**: Illustrates how these techniques can be applied in **daily life, business, and academics**.

Examples & Techniques Explained

• **Multiplication tricks**: Shakuntala Devi demonstrates multiplying large numbers quickly by **breaking them into smaller components**.
 • **Cube and square calculations**: She presents methods to compute squares and cubes mentally using patterns.
 • **Root extraction**: Techniques for **finding square roots mentally** for two- and three-digit numbers.
 • **Estimation and approximation**: Methods to **approximate large sums or products** without detailed calculation.

Importance & Impact

• The book is a **milestone in popular mathematics literature**, inspiring learners worldwide.
 • It demonstrates that **human computation** can rival mechanical calculation under proper techniques.
 • Encourages students to develop **mental maths skills**, boosting confidence in handling numbers.
 • Recognized internationally for contributing to **numerical education and cognitive skill development**.

Legacy

• **Shakuntala Devi** is often called the **"Human Computer"**, and this book exemplifies her ability to **explain complex calculations simply**.
 • The methods in the book are still taught in some **mathematics enrichment programs** to enhance mental arithmetic skills.
 • Continues to inspire books, online courses, and **educational videos** that teach her techniques globally.

Shakuntala Devi's Record Multiplication

Basic Information

• The **exact product** Shakuntala Devi computed for her **Guinness World Record** was:
7,686,369,774,870 × 2,465,099,745,779 = 18,947,668,177,995,426,462,773,730
• This feat was performed at **Imperial College, London in 1980**, verified by experts for accuracy.
• She completed the **multiplication mentally** in **28 seconds**, without using any mechanical aid or calculator.
• This achievement **demonstrates her extraordinary mental computation ability** and precision.

Significance of the Record

• The number involves **25 digits**, making it one of the most complex multiplications ever verified for a **human calculation**.
• Her ability to calculate such a huge number mentally underscores her **nickname, the "Human Computer."**
• This record **illustrates the power of human memory, concentration, and calculation techniques** without external tools.

Techniques Behind the Calculation

• **Decomposition method**: Breaking the large numbers into **manageable components** to simplify calculations.
• **Pattern recognition**: Using **number patterns, symmetry, and shortcuts** for faster computation.
• **Mental visualization**: Keeping track of **intermediate results mentally** while combining them for the final product.
• **Practice and memorization**: Years of training in **arithmetic and mental computation** enabled such extraordinary feats.

Shakuntala Devi's Political Foray in 1980

Background

• Shakuntala Devi, widely known as the **"Human Computer"**, ventured into **politics** in **1980**, contesting the **Lok Sabha elections**.
• Despite her fame in mathematics, her political journey was marked by **independent candidature**, emphasizing her interest in public service beyond her mathematical achievements.

Constituencies Contested

• She contested from two **Lok Sabha constituencies** in **1980**:

- **Bombay South (now Mumbai South)**

- **Medak** in present-day **Telangana**
  • Her candidature was notable because she ran **simultaneously in two different states**, which is allowed under **Indian election law**, though rarely done.

Significance

• Contesting from **Bombay South**, a major urban constituency, indicated her **appeal among educated and urban voters**.
• Contesting from **Medak**, a semi-urban/rural constituency, showed her interest in **broader national issues** beyond metropolitan areas.
• Her entry into politics reflects the **intersection of celebrity and civic engagement**, illustrating how national figures from non-political fields attempt to leverage popularity for public service.

Election Outcome

• Shakuntala Devi did **not win** either seat, but her candidature drew attention to her **multi-dimensional personality**.
 • This episode is often highlighted to show how eminent figures in **science, mathematics, and culture** can influence public awareness and discourse through political participation.

Shakuntala Devi's Pioneering Work on LGBTQ+ Issues

Historical Context

• In **1977**, Shakuntala Devi published a groundbreaking book titled **"The World of Homosexuals"**, making her one of the first Indian authors to address **LGBTQ+ issues** openly.
 • At a time when **homosexuality was largely criminalized** under **Section 377 of the Indian Penal Code**, this book represented a bold **social and academic intervention**.
 • The book highlighted the **lives, struggles, and social perceptions** of homosexual individuals in India, challenging traditional norms and prejudices.

Key Themes of the Book

• **Visibility and Awareness**: The book brought visibility to the marginalized **LGBTQ+ community** in India.
 • **Social Challenges**: Discussed societal stigma, family pressures, and legal hurdles faced by homosexual individuals.
 • **Psychological Perspective**: Explored the **psychological and emotional aspects** of being homosexual in a socially conservative society.
 • **Advocacy**: Advocated for understanding, tolerance, and **decriminalization** of homosexuality in Indian society.

Significance

• **First of Its Kind**: It was among the **first Indian publications** to treat homosexuality as a legitimate human experience rather than a taboo.
 • **Academic Contribution**: Provided a foundation for **research, discussion, and policy debates** on LGBTQ+ issues in India.
 • **Influence on Activism**: Inspired subsequent **LGBTQ+ activism** and advocacy leading up to the **decriminalization of homosexuality in India in 2018**.

Dick Cheney, architect of Iraq invasion, dies at 84

PCS

Agence France-Presse
WASHINGTON

Dick Cheney, who became one of the most powerful Vice Presidents in United States history as George W. Bush's number two during 9/11 and catastrophic wars in Afghanistan and Iraq, died on Monday.

He was 84.

Cheney forged an unusually muscular job in the traditionally inconsequential role and was seen by many as a major power behind the throne, as Mr. Bush thrust America into the so-called war on terror, with a dark underbelly of renditions, torture and the controversial Guantanamo prison site.

A hate-figure to many on the left, he made a remarkable pivot toward the end of his life when he opposed Donald Trump's ultimately successful campaign to return to the White House in 2024.

Cheney's daughter Liz Cheney, a former congresswoman from Wyoming, said her deeply Republican father had voted for Mr. Trump's Democratic opponent Kamala Harris.

Cheney, also a former congressman and defence secretary, "died due to

Substantial impact: As 46th Vice President, Dick Cheney served for two terms between 2001 and 2009. REUTERS

complications of pneumonia and cardiac and vascular disease," according to a family statement cited by U.S. media.

"For decades, Dick Cheney served our nation, including as White House Chief of Staff, Wyoming's Congressman, Secretary of Defense, and Vice President of the United States," it said.

As 46th Vice President, Cheney served for two terms between 2001 and 2009.

Aggressive notion
The job is often something of a frustrating experience for ambitious politicians, but Cheney's Machiavellian skills gave him considerable influence behind the scenes.

He helped usher in an aggressive notion of executive power, believing the President should be able to operate almost unfettered by lawmakers or the courts, particularly during wartime. It was an approach that saw Mr. Bush enter military quagmires in Afghanistan and Iraq and prompt major controversy over his impact on civil liberties.

Born in Lincoln, Nebraska, on January 30, 1941, Cheney grew up mostly in the sparsely populated western state of Wyoming.

Cheney is widely seen as one of the driving forces behind the decision to invade Iraq in 2003 following the September 11, 2001 attacks by al-Qaeda on New York and Washington.

Dick Cheney, architect of Iraq invasion, dies at 84
इराक आक्रमण के वास्तुकार डिक चेनी का 84 वर्ष की आयु में निधन

- **Dick Cheney**, who became one of the **most powerful Vice Presidents** in **United States history** as **George W. Bush's number two** during **9/11** and the catastrophic wars in **Afghanistan and Iraq**, died on Monday.
  डिक चेनी (Dick Cheney), जिन्होंने **संयुक्त राज्य अमेरिका के इतिहास (United States history)** में **सबसे प्रभावशाली उपराष्ट्रपतियों (most powerful Vice Presidents)** में से एक के रूप में जॉर्ज डब्ल्यू. बुश (George W. Bush) के सहयोगी (number two) के रूप में 9/11 और **अफगानिस्तान व इराक के विनाशकारी युद्धों (catastrophic wars)** के दौरान भूमिका निभाई, का सोमवार को निधन हो गया।

- He was **84**.
  वे **84 वर्ष** के थे।

- Cheney forged an **unusually muscular job** in the traditionally **inconsequential role** and was seen by many as a **major power behind the throne**, as Mr. Bush thrust America into the so-called **war on terror**, with a dark underbelly of **renditions, torture**, and the controversial **Guantanamo prison site**.
  चेनी ने पारंपरिक रूप से **कम प्रभावशाली पद (inconsequential role)** को **असामान्य रूप से शक्तिशाली (unusually muscular job)** बना दिया और कई लोगों द्वारा उन्हें **परदे के पीछे की वास्तविक शक्ति (major power behind the throne)** माना गया, जब **बुश (Mr. Bush)** ने अमेरिका को तथाकथित **आतंक के खिलाफ युद्ध (war on terror)** में झोंक दिया, जिसके साथ **अपहरण, यातना (renditions, torture)** और विवादास्पद **ग्वांतानामो जेल (Guantanamo prison)** का अंधकारमय पहलू जुड़ा हुआ था।

- A **hate-figure to many on the left**, he made a **remarkable pivot** toward the end of his life when he **opposed Donald Trump's** ultimately successful campaign to **return to the White House in 2024**.
  वामपंथियों के बीच नफरत का प्रतीक (hate-figure) माने जाने वाले चेनी ने अपने जीवन के अंतिम वर्षों में एक **अद्भुत परिवर्तन (remarkable pivot)** किया, जब उन्होंने **डोनाल्ड ट्रंप (Donald Trump)** के 2024 में **व्हाइट हाउस वापसी के अभियान (campaign to return to the White House)** का विरोध किया।

- Cheney's daughter **Liz Cheney**, a former **congresswoman from Wyoming**, said her deeply Republican father had **voted for Mr. Trump's Democratic opponent Kamala Harris**.
  चेनी की बेटी **लिज़ चेनी (Liz Cheney)**, जो **वायोमिंग (Wyoming)** से पूर्व **कांग्रेस सदस्य (congresswoman)** हैं, ने कहा कि उनके गहराई से **रिपब्लिकन पिता (Republican father)** ने **ट्रंप की डेमोक्रेटिक प्रतिद्वंद्वी कमला हैरिस (Democratic opponent Kamala Harris)** को वोट दिया था।

- Cheney, also a former **congressman and defence secretary**, "died due to complications of **pneumonia and cardiac and vascular disease**," according to a **family statement** cited by **U.S. media**.
  अमेरिकी मीडिया (U.S. media) द्वारा उद्धृत एक **परिवारिक बयान (family statement)** के अनुसार, **चेनी (Cheney)**, जो पूर्व **कांग्रेस सदस्य और रक्षा सचिव (congressman and defence secretary)** भी थे, की मृत्यु **निमोनिया और हृदय व रक्तवाहिका रोग (pneumonia and cardiac and vascular disease)** से उत्पन्न जटिलताओं के कारण हुई।

- "For decades, **Dick Cheney served our nation**, including as **White House Chief of Staff, Wyoming's Congressman, Secretary of Defense**, and **Vice President of the United States**," it said.
  बयान में कहा गया, "दशकों तक **डिक चेनी (Dick Cheney)** ने हमारे देश की सेवा की, जिसमें उन्होंने **व्हाइट हाउस चीफ ऑफ स्टाफ (White House Chief of Staff)**, वायोमिंग के कांग्रेस सदस्य (Wyoming's Congressman), रक्षा सचिव (Secretary of Defense) और संयुक्त

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राज्य अमेरिका के उपराष्ट्रपति (Vice President of the United States) के रूप में कार्य किया।"

- As **46th Vice President**, Cheney served for **two terms between 2001 and 2009**.
 46वें उपराष्ट्रपति (46th Vice President) के रूप में, चेनी ने **2001 से 2009 तक दो कार्यकाल (two terms)** पूरे किए।

Aggressive notion
आक्रामक दृष्टिकोण

- The job is often something of a **frustrating experience** for ambitious politicians, but **Cheney's Machiavellian skills** gave him considerable **influence behind the scenes**.
 यह पद अक्सर महत्वाकांक्षी राजनेताओं के लिए **निराशाजनक अनुभव (frustrating experience)** होता है, लेकिन **चेनी की मकैवेलियन कौशल (Machiavellian skills)** ने उन्हें **पर्दे के पीछे काफी प्रभाव (influence behind the scenes)** दिलाया।
- He helped usher in an **aggressive notion of executive power**, believing the **President should operate almost unfettered** by lawmakers or courts, particularly during **wartime**.
 उन्होंने **कार्यपालिका की शक्तियों के आक्रामक विचार (aggressive notion of executive power)** को आगे बढ़ाया, यह मानते हुए कि **राष्ट्रपति (President)** को विशेष रूप से **युद्धकाल (wartime)** में **विधायकों या अदालतों से लगभग मुक्त (almost unfettered)** होकर कार्य करने की अनुमति होनी चाहिए।
- It was an approach that saw **Mr. Bush enter military quagmires** in **Afghanistan and Iraq** and prompt **major controversy** over his **impact on civil liberties**.
 यह वही दृष्टिकोण था, जिसने **बुश (Mr. Bush)** को **अफगानिस्तान और इराक (Afghanistan and Iraq)** के **सैन्य दलदल (military quagmires)** में फँसा दिया और **नागरिक स्वतंत्रताओं (civil liberties)** पर उनके प्रभाव को लेकर **बड़ा विवाद (major controversy)** उत्पन्न किया।
- **Born in Lincoln, Nebraska, on January 30, 1941**, Cheney grew up mostly in the **sparsely populated western state of Wyoming**.
 30 जनवरी 1941 को लिंकन, नेब्रास्का (Lincoln, Nebraska) में जन्मे चेनी ने अपना बचपन मुख्यतः **कम आबादी वाले पश्चिमी राज्य वायोमिंग (western state of Wyoming)** में बिताया।

- Cheney is widely seen as one of the **driving forces behind the decision to invade Iraq in 2003**, following the **September 11, 2001 attacks by al-Qaeda** on **New York and Washington**.
 चेनी को व्यापक रूप से **2003 में इराक पर आक्रमण (invasion of Iraq)** के निर्णय के पीछे की **मुख्य प्रेरक शक्तियों (driving forces)** में से एक माना जाता है, जो **11 सितंबर 2001 को अल-कायदा (al-Qaeda)** द्वारा **न्यूयॉर्क और वाशिंगटन (New York and Washington)** पर किए गए हमलों के बाद लिया गया था।

GS Paper 1: History, Society and Geography	
TOPICS COVERED	**05 November 2025**
1.	**Gold coins from the Vijayanagara-era unearthed in T.N.** **तमिलनाडु में विजयनगर काल के स्वर्ण सिक्के मिले**

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2.	**SC flags misuse of POCSO Act to punish adolescent relations** किशोर संबंधों को दंडित करने के लिए POCSO अधिनियम के दुरुपयोग पर सुप्रीम कोर्ट ने चिंता जताई
3.	**SC to review surrogacy ban on couples with one child** एक बच्चे वाले दंपतियों पर सरोगेसी प्रतिबंध की सुप्रीम कोर्ट समीक्षा करेगी
4.	**Cameroon security forces killed 48 in election protests, say UN sources** कैमरून की सुरक्षा बलों ने चुनावी प्रदर्शनों में 48 लोगों की हत्या की, संयुक्त राष्ट्र सूत्रों का दावा
5.	**Ukraine drones reach deep inside Russia as fight for key city rages on** मुख्य शहर पर संघर्ष जारी रहते हुए यूक्रेन के ड्रोन रूस के भीतर गहराई तक पहुँचे
6.	**Bodies of poll violence victims being dumped: Tanzania Opposition party** चुनाव हिंसा के पीड़ितों के शवों को फेंका जा रहा है: तंजानिया की विपक्षी पार्टी का आरोप

Sacred traditions

A priest places the Sikh holy book *Guru Granth Sahib* in a golden palanquin during a procession on the eve of the birth anniversary of Guru Nanak Dev, the founder of Sikhism, at the Golden Temple in Amritsar on Tuesday. PTI

A priest places the Sikh holy book Guru Granth Sahib in a golden palanquin during a procession on the eve of the birth anniversary of Guru Nanak Dev, the founder of Sikhism, at the Golden Temple in Amritsar on Tuesday.

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Aftermath of a typhoon

GS I Cyclone

Cleaning up: People gathering coconuts washed ashore by of Typhoon Kalmaegi in Mayorga town of Leyte province in the central Philippines on Tuesday. At least five people have been killed and hundreds of thousands displaced as rain flooded the region. AFP

Cleaning up: People gathering coconuts washed ashore by of **Typhoon Kalmaegi** in Mayorga town of Leyte province in the central Philippines on Tuesday. At least five people have been killed and hundreds of thousands displaced as rain flooded the region.

Gold coins from the Vijayanagara-era unearthed in T.N.

GS I: History

The Hindu Bureau
TIRUVANNAMALAI

One hundred and three punch-marked gold coins dating back to Vijayanagara-era were found in a earthen pot when a group of workers dug up a trench at the sanctum sanctorum of the Later Chola-era built Shiva temple in Kovilur hamlet, around 10 km from Jamunamarathur village atop Jawadhu Hills in Tiruvannamalai.

Officials of Hindu Religious and Charitable Endowments department, which was involved in restoration of the ancient temple at a cost of ₹ 2.5 crore, said a group of workers was digging a trench in the sanctum sanctorum when they hit a small pot. They found gold coins in different sizes and shapes. Immediately, they informed revenue officials and police, who rushed to the spot. "Based on an alert from workers, we collected gold coins from the temple premises. Archaeologists from Tamil Nadu State Archaeology Department (TNSAD) will assess its heritage value before coins are handed over to the district treasury," S. Durai, Tasildar (Jamunamarathur), told *The Hindu*.

Revenue officials informed Collector K. Tharpagaraj, who is the custodian of district treasury as per Indian Treasure Trove Act, 1878, of the discovery of the coins. He has directed District Curator S. Baskar to assess the coins and submit a report to him.

The Collector has asked the District Curator to assess the gold coins.

"Traditionally, gold coins are minted mainly as offerings to god. Copper and other metal coins are used for trade due to their durability. Such coins (copper) are also widely circulated because they cannot be melted like gold coins," said K. Sridharan, retired Deputy Director, TNSAD.

Archaeologists said that gold coins, on an average, will be around five milimetres in size. The coins could be 600 years old during the Vijayanagara era. Gold coins found in the temple have the emblem of a pig, an animal depicted by Vijayanagara rulers in various engravings.

Such offering of gold coins to temples was done during that period because a large number of temples were built under Krishnadevaraya of Vijayanagara empire as part of reviving temple architecture in the region. Coins made during this period will be circular in shape whereas coins in Sangam age are square-shaped.

- **One hundred and three punch-marked gold coins** dating back to **Vijayanagara era** were found in an **earthen pot** when a group of workers dug up a **trench at the sanctum sanctorum** of the **Later Chola-era built Shiva temple** in **Kovilur hamlet**, around **10 km from Jamunamarathur village** atop **Jawadhu Hills in Tiruvannamalai.**
  विजयनगर काल के **103 पंच-चिह्नित स्वर्ण सिक्के** एक **मिट्टी के बर्तन** में मिले जब कुछ मजदूरों ने तिरुवन्नामलाई जिले के जवाधू हिल्स पर स्थित जमुनामाराथुर गांव से 10 किमी दूर कोविलुर बस्ती के चोल कालीन शिव मंदिर के गर्भगृह में खाई खोदी।

- **Officials of Hindu Religious and Charitable Endowments Department (HR&CE)**, which was involved in **restoration of the ancient temple at a cost of ₹2.5 crore**, said a group of workers was digging a trench in the sanctum sanctorum when they hit a small pot.
  हिंदू धार्मिक एवं धर्मार्थ बंदोबस्त विभाग **(HR&CE)**, जो **₹2.5 करोड़ की लागत से प्राचीन मंदिर के पुनरुद्धार** में शामिल था, ने बताया कि मजदूरों का एक समूह **गर्भगृह में खाई खोद रहा था जब उन्हें एक छोटा बर्तन मिला।**

- They found **gold coins in different sizes and shapes**. Immediately, they informed **revenue officials and police**, who rushed to the spot.
  उन्हें **विभिन्न आकार और आकारों के स्वर्ण सिक्के** मिले। उन्होंने तुरंत **राजस्व अधिकारियों और पुलिस** को सूचना दी, जो मौके पर पहुंचे।

- "Based on an alert from workers, we collected gold coins from the temple premises. **Archaeologists from Tamil Nadu State Archaeology Department (TNSAD)** will assess its **heritage value** before coins are handed over to the **district treasury**," said **S. Durai, Tasildar (Jamunamarathur)**.
  "मजदूरों से मिली सूचना के आधार पर, हमने मंदिर परिसर से स्वर्ण सिक्के एकत्र किए। **तमिलनाडु राज्य पुरातत्व विभाग (TNSAD)** के **पुरातत्वविद सिक्कों के ऐतिहासिक महत्व का मूल्यांकन करेंगे** और फिर उन्हें **जिला कोषागार** में सौंपा जाएगा," **एस. दुरई, तहसीलदार (जमुनामाराथुर)** ने कहा।

- **Revenue officials informed Collector K. Tharpagaraj**, who is the **custodian of district treasury as per Indian Treasure Trove Act, 1878**, of the discovery of the coins.
  राजस्व अधिकारियों ने कलेक्टर के. थारपगराज को सिक्कों की खोज की सूचना दी, जो **भारतीय ट्रेजर ट्रोव अधिनियम, 1878** के अनुसार **जिला कोषागार के संरक्षक** हैं।

- He has directed **District Curator S. Baskar** to assess the coins and **submit a report** to him.
  उन्होंने **जिला संरक्षक एस. भास्कर** को सिक्कों का मूल्यांकन करने और **रिपोर्ट प्रस्तुत करने** का निर्देश दिया है।

- "Traditionally, **gold coins are minted mainly as offerings to god**. **Copper and other metal coins** are used for **trade due to their durability**. Such coins (copper) are also **widely circulated because they cannot be melted like gold coins**," said **K. Sridharan, retired Deputy Director, TNSAD.**

  "परंपरागत रूप से, **स्वर्ण सिक्के मुख्यतः भगवान को चढ़ावे के रूप में बनाए जाते थे। तांबे और अन्य धातु के सिक्के टिकाऊ होने के कारण व्यापार के लिए उपयोग किए जाते थे। ऐसे सिक्के (तांबे के) व्यापक रूप से प्रचलित थे क्योंकि वे स्वर्ण सिक्कों की तरह पिघलाए नहीं जा सकते थे**," के. श्रीधरन, सेवानिवृत्त उप निदेशक, **TNSAD** ने कहा।

- **Archaeologists said** that gold coins, on an average, will be around **five millimetres in size**. The coins could be **600 years old during the Vijayanagara era.**

  पुरातत्वविदों ने कहा कि स्वर्ण सिक्के औसतन **लगभग पांच मिलीमीटर आकार के** होते हैं। ये सिक्के **विजयनगर काल के दौरान लगभग 600 वर्ष पुराने** हो सकते हैं।

- **Gold coins found in the temple have the emblem of a pig**, an animal depicted by Vijayanagara rulers in various engravings.

  मंदिर में मिले स्वर्ण सिक्कों पर सूअर का प्रतीक अंकित है, जो विजयनगर शासकों द्वारा विभिन्न अभिलेखों में दर्शाया गया पशु है।

- Such **offering of gold coins to temples** was done during that period because a **large number of temples were built under Krishnadevaraya** of the **Vijayanagara empire** as part of **reviving temple architecture in the region.**

  ऐसे **स्वर्ण सिक्कों के मंदिरों में चढ़ावे** उस काल में इसलिए दिए जाते थे क्योंकि **विजयनगर साम्राज्य के कृष्णदेवराय** के शासनकाल में **क्षेत्र में मंदिर वास्तुकला के पुनरुद्धार के हिस्से के रूप में अनेक मंदिरों का निर्माण किया गया था।**

- **Coins made during this period** will be **circular in shape**, whereas **coins in the Sangam age** are **square-shaped.**

  इस काल में बने सिक्के गोल आकार के होते थे, जबकि **संगम युग के सिक्के वर्गाकार** होते थे।

SC flags misuse of POCSO Act to punish adolescent relations

The court mulls directions to raise awareness of provisions of the Act, and sexual equality among students, asks States and U.T.s to respond

GS I: Society: Patriarchy

Aaratrika Bhaumik
NEW DELHI

The Supreme Court on Tuesday expressed concern over the growing misuse of the Protection of Children from Sexual Offences (POCSO) Act to criminalise consensual adolescent relationships, and said it was considering issuing directions to spread legal awareness of the subject.

A Bench of Justices B.V. Nagarathna and R. Mahadevan observed that while adjudicating bail pleas, it had repeatedly come across instances where stringent provisions of the law were being invoked as a form of retribution in situations not envisaged by its framers. The judges stressed the need for greater legal awareness, particularly among male adolescents, who are often at the receiving end of such prosecution.

"The POCSO Act is being misused in cases concerning consensual relationships between adolescents," Justice Nagarathna remarked, adding that parents frequently lodged complaints against boys involved in such relationships with girls of similar age. "We should spread awareness among boys and men about the legal provisions," she said.

The court was hearing a writ petition filed by senior advocate and petitioner-in-person Aabad Ponda, who had attributed the rise in sexual offences and crimes against women to inadequate education on gender equality. Accordingly, he had urged the inclusion of early sensitisation on gender parity and legal literacy in school curricula.

Earlier, the court had directed the Centre to indicate steps taken to include the concept of sexual equality and moral education in school syllabi, observing that "ethical and behavioural training on how men should treat women with respect" must be a vital part of education.

On Tuesday, the Bench noted that several States and Union Territories, including Telangana, Tripura, Himachal Pradesh, and Jammu and Kashmir, were yet to file their responses. Granting them "one last opportunity", the court said it would consider issuing directions to promote awareness regarding the POCSO framework once all responses were received.

SC flags misuse of POCSO Act to punish adolescent relations
किशोर संबंधों को दंडित करने के लिए POCSO अधिनियम के दुरुपयोग पर सुप्रीम कोर्ट ने चिंता जताई

- The court mulls directions to raise awareness of provisions of the Act, and **sexual equality** among students, and asks **States and U.T.s** to respond.
  अदालत अधिनियम के प्रावधानों और **लैंगिक समानता (sexual equality)** के बारे में छात्रों में

जागरूकता बढ़ाने के लिए दिशा-निर्देश जारी करने पर विचार कर रही है और **राज्यों व केंद्र शासित प्रदेशों (States and U.T.s)** से जवाब मांगा है।

- The **Supreme Court** on Tuesday expressed concern over the growing **misuse of the Protection of Children from Sexual Offences (POCSO) Act** to criminalise **consensual adolescent relationships**, and said it was considering issuing directions to spread **legal awareness** of the subject.

  सुप्रीम कोर्ट ने मंगलवार को **बच्चों को यौन अपराधों से संरक्षण (POCSO) अधिनियम** के बढ़ते **दुरुपयोग (misuse)** पर चिंता व्यक्त की, जिसके तहत **आपसी सहमति वाले किशोर संबंधों (consensual adolescent relationships)** को अपराध बनाया जा रहा है, और कहा कि इस विषय पर **कानूनी जागरूकता (legal awareness)** फैलाने के लिए दिशा-निर्देश जारी करने पर विचार किया जा रहा है।

- A **Bench of Justices B.V. Nagarathna and R. Mahadevan** observed that while adjudicating bail pleas, it had repeatedly come across instances where **stringent provisions of the law** were being invoked as a form of **retribution** in situations not envisaged by its framers.

  न्यायमूर्ति बी.वी. नागरथना और आर. महादेवन की पीठ ने देखा कि जमानत याचिकाओं पर सुनवाई करते समय, वे बार-बार ऐसे मामलों से रूबरू हुए हैं जहां **कड़े कानूनी प्रावधानों (stringent provisions of the law)** का उपयोग **बदले (retribution)** के रूप में किया जा रहा था, जो इसके निर्माताओं के उद्देश्य में नहीं था।

- The judges stressed the need for greater **legal awareness**, particularly among **male adolescents**, who are often at the receiving end of such prosecution.

  न्यायाधीशों ने विशेषकर **किशोर लड़कों (male adolescents)** के बीच अधिक **कानूनी जागरूकता (legal awareness)** की आवश्यकता पर जोर दिया, जो अक्सर ऐसे मामलों में **पीड़ित (receiving end)** होते हैं।

- "The **POCSO Act** is being misused in cases concerning **consensual relationships between adolescents**," Justice Nagarathna remarked, adding that **parents frequently lodged complaints against boys** involved in such relationships with girls of similar age.

  "**POCSO अधिनियम** का दुरुपयोग **किशोरों के बीच आपसी सहमति वाले संबंधों** के मामलों में किया जा रहा है," न्यायमूर्ति नागरथना ने कहा, यह जोड़ते हुए कि **माता-पिता अक्सर ऐसे मामलों में समान आयु की लड़कियों से संबंध रखने वाले लड़कों के खिलाफ शिकायतें दर्ज कराते हैं।**

- "We should spread awareness among **boys and men** about the **legal provisions**," she said.

  उन्होंने कहा, "हमें **लड़कों और पुरुषों (boys and men)** में **कानूनी प्रावधानों (legal provisions)** के बारे में जागरूकता फैलानी चाहिए।"

- The court was hearing a **writ petition** filed by senior advocate and petitioner-in-person **Aabad Ponda**, who had attributed the rise in **sexual offences and crimes against women** to inadequate education on **gender equality**.

  अदालत **वरिष्ठ अधिवक्ता और याचिकाकर्ता आबाद पोंडा (Aabad Ponda)** द्वारा दायर एक **रिट याचिका (writ petition)** पर सुनवाई कर रही थी, जिन्होंने **यौन अपराधों और महिलाओं के खिलाफ अपराधों (sexual offences and crimes against women)** में वृद्धि का कारण **लैंगिक समानता (gender equality)** पर अपर्याप्त शिक्षा को बताया था।

- Accordingly, he had urged the inclusion of **early sensitisation on gender parity and legal literacy** in **school curricula**.

  इसके अनुसार, उन्होंने **विद्यालय पाठ्यक्रमों (school curricula)** में **लैंगिक समानता (gender parity)** और **कानूनी साक्षरता (legal literacy)** पर **प्रारंभिक संवेदनशीलता (early sensitisation)** को शामिल करने की अपील की थी।

- Earlier, the court had directed the **Centre** to indicate steps taken to include the concept of **sexual equality and moral education** in school syllabi, observing that "**ethical and behavioural training** on how men should treat women with respect" must be a vital part of education.

इससे पहले, अदालत ने **केंद्र सरकार (Centre)** को यह बताने का निर्देश दिया था कि **यौन समानता (sexual equality)** और **नैतिक शिक्षा (moral education)** की अवधारणा को स्कूल पाठ्यक्रम में शामिल करने के लिए कौन-से कदम उठाए गए हैं, यह कहते हुए कि "**पुरुषों को महिलाओं के प्रति सम्मानजनक व्यवहार सिखाने (ethical and behavioural training)** की शिक्षा" को शिक्षण का एक **महत्वपूर्ण हिस्सा** होना चाहिए।

- On Tuesday, the Bench noted that several **States and Union Territories**, including **Telangana, Tripura, Himachal Pradesh, and Jammu and Kashmir**, were yet to file their responses.

 मंगलवार को पीठ ने नोट किया कि कई **राज्य और केंद्र शासित प्रदेश (States and Union Territories)** जैसे **तेलंगाना, त्रिपुरा, हिमाचल प्रदेश और जम्मू-कश्मीर**, ने अभी तक अपने जवाब दाखिल नहीं किए हैं।

- Granting them **"one last opportunity"**, the court said it would consider issuing **directions to promote awareness regarding the POCSO framework** once all responses were received.

 उन्हें "**अंतिम अवसर (one last opportunity)**" देते हुए अदालत ने कहा कि सभी जवाब प्राप्त होने के बाद वह **POCSO ढांचे (POCSO framework)** के संबंध में **जागरूकता बढ़ाने के लिए दिशा-निर्देश (directions)** जारी करने पर विचार करेगी।

SC to review surrogacy ban on couples with one child

Centre says there is no basic right to surrogacy, which involves the use of another woman's body; petitioner cites secondary fertility is emotionally taxing, notes India has no one-child policy
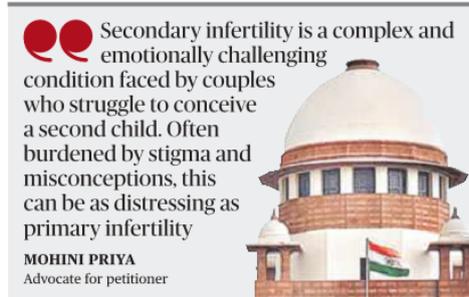
GS I: Society

Krishnadas Rajagopal
NEW DELHI

The Supreme Court on Tuesday decided to examine whether a law banning married couples facing secondary infertility from using surrogacy to have a second child amounts to a state restriction on the reproductive choices of citizens.

The Union government has supported the constitutionality of the legal provision, Section 4(iii)(C)(II) of the Surrogacy (Regulation) Act, 2021, arguing that availing surrogacy cannot be claimed as a fundamental right. It has contended that surrogacy involves the use of the womb of another woman, the surrogate mother, and should be availed only after all other options to attain parenthood have failed, including natural birth and assisted reproductive technologies (ART).

"The Constitution does not recognise a right over another individual's body. Thus, the right to avail surrogacy cannot be claimed as a fundamental right and exists purely as a statutory right subject to conditions/restrictions prescribed in

> Secondary infertility is a complex and emotionally challenging condition faced by couples who struggle to conceive a second child. Often burdened by stigma and misconceptions, this can be as distressing as primary infertility
>
> **MOHINI PRIYA**
> Advocate for petitioner

the 2021 Act," the government submitted in the top court.

'Emotional toll'
Appearing before a Bench headed by Justice B.V. Nagarathna on Tuesday, advocate Mohini Priya, representing a couple facing secondary infertility and seeking to use surrogacy, argued that the state cannot interfere in the private lives and reproductive choices of citizens.

"Secondary infertility is a complex and emotionally challenging issue that many couples face when they struggle to conceive a second child after having successfully given birth to one or more children previously. This condition, often shrouded in stigma and misconceptions, can be

just as distressing as primary infertility," Ms. Priya submitted.

The lawyer submitted that the definition of "infertility" in the context of surrogacy both in the ART Act and the Surrogacy Act was not restricted to primary infertility. She urged the court to read down Section 4(iii)(C)(II) to allow couples with secondary infertility to have a second child through surrogacy.

Balancing interests
The government pointed to the proviso to the Section, which offers an exception for couples with a child who is mentally or physically challenged or suffers from a life-threatening disorder or a fatal illness with no permanent cure. This applies whether

their existing child is biologically theirs, adopted, or through surrogacy.

"This is a well-considered provision which balances the interests of an intending couple who may have a genuine, grave need to have a second child through surrogacy, while ensuring that a surrogacy procedure is not availed and a surrogate mother does not undergo an entire pregnancy when the intending couple already has a healthy, living child," the Centre said, backing the restriction.

'No one-child policy'
Justice Nagarathna orally remarked in court that the restriction imposed under the provision was "reasonable". The judge, on one occasion, referred to the burgeoning population of the country.

Ms. Priya noted that the country does not have a "one-child policy", insisting that couples could ensure the best interests of their first child while availing of surrogacy for a second child. She referred to the Adoption Regulations, 2017 under the Juvenile Justice Act, 2015, which allow three children of any gender to be adopted.

SC to review surrogacy ban on couples with one child
एक बच्चे वाले दंपतियों पर सरोगेसी प्रतिबंध की सुप्रीम कोर्ट समीक्षा करेगी

- The **Supreme Court** on Tuesday decided to examine whether a law banning **married couples facing secondary infertility** from using surrogacy to have a second child amounts to a **state restriction on the reproductive choices of citizens**.

  सुप्रीम कोर्ट ने मंगलवार को यह जांचने का निर्णय लिया कि **द्वितीयक बांझपन (secondary infertility)** से जूझ रहे **विवाहित दंपतियों को दूसरा बच्चा पाने के लिए सरोगेसी से रोकने वाला कानून** क्या राज्य द्वारा नागरिकों की प्रजनन स्वतंत्रता (reproductive choices) पर प्रतिबंध लगाने के समान है।

- The **Union government** has supported the constitutionality of the legal provision, **Section 4(iii)(C)(II)** of the **Surrogacy (Regulation) Act, 2021**, arguing that **availing surrogacy cannot be claimed as a fundamental right**.

  केंद्र सरकार ने सरोगेसी (विनियमन) अधिनियम, 2021 की **धारा 4(iii)(C)(II)** के संवैधानिक वैधता (constitutionality) का समर्थन किया और तर्क दिया कि **सरोगेसी का लाभ लेना (availing surrogacy) मौलिक अधिकार (fundamental right)** नहीं माना जा सकता।

- It has contended that surrogacy involves the **use of the womb of another woman**, the **surrogate mother**, and should be availed only after all other options to attain parenthood have failed, including **natural birth** and **assisted reproductive technologies (ART)**.

  सरकार ने कहा कि **सरोगेसी में किसी अन्य महिला के गर्भाशय (womb)** का उपयोग शामिल होता है, अर्थात **सरोगेट माँ (surrogate mother)** का, और इसे तभी अपनाया जाना चाहिए जब **प्राकृतिक गर्भधारण (natural birth)** और **सहायक प्रजनन तकनीक (ART)** सहित अन्य सभी विकल्प असफल हो जाएँ।

- "The Constitution does not recognise a right over another individual's body. Thus, the right to avail surrogacy cannot be claimed as a fundamental right and exists purely as a **statutory right subject to conditions/restrictions prescribed in the 2021 Act**," the government submitted in the top court.

  "**संविधान किसी व्यक्ति को दूसरे व्यक्ति के शरीर पर अधिकार (right over another individual's body)** नहीं देता। इसलिए **सरोगेसी का अधिकार (right to avail surrogacy)** मौलिक अधिकार नहीं है, बल्कि यह केवल **2021 अधिनियम में निर्धारित शर्तों और प्रतिबंधों (conditions/restrictions)** के अधीन एक **वैधानिक अधिकार (statutory right)** है," सरकार ने सर्वोच्च न्यायालय में प्रस्तुत किया।

'Emotional toll'
'भावनात्मक बोझ'

- Appearing before a Bench headed by **Justice B.V. Nagarathna** on Tuesday, **advocate Mohini Priya**, representing a couple facing secondary infertility and seeking to use surrogacy, argued that the **state cannot interfere in the private lives and reproductive choices of citizens**.

  न्यायमूर्ति बी.वी. नागरथना की अध्यक्षता वाली पीठ के समक्ष मंगलवार को **वकील मोहिनी प्रिया (advocate Mohini Priya)**, जो **द्वितीयक बांझपन (secondary infertility)** से जूझ रहे एक दंपति की ओर से पेश हुईं, ने तर्क दिया कि **राज्य नागरिकों के निजी जीवन और प्रजनन विकल्पों (reproductive choices)** में हस्तक्षेप नहीं कर सकता।

- "**Secondary infertility** is a complex and emotionally challenging issue that many couples face when they struggle to conceive a second child after having successfully given birth to one or more children previously. This condition, often shrouded in stigma and misconceptions, can be just as distressing as **primary infertility**," Ms. Priya submitted.

  "**द्वितीयक बांझपन (Secondary infertility)** एक जटिल और भावनात्मक रूप से चुनौतीपूर्ण स्थिति है, जिसका सामना कई दंपति तब करते हैं जब वे एक या अधिक बच्चों के जन्म के बाद दूसरा

बच्चा पैदा करने में असमर्थ होते हैं। यह स्थिति अक्सर **कलंक और भ्रांतियों (stigma and misconceptions)** से घिरी होती है और यह **प्राथमिक बांझपन (primary infertility)** जितनी ही कष्टदायक हो सकती है," **सुश्री प्रिया** ने कहा।

- The lawyer submitted that the **definition of "infertility"** in the context of surrogacy both in the **ART Act** and the **Surrogacy Act** was **not restricted to primary infertility**.
  वकील ने कहा कि **सरोगेसी से संबंधित "बांझपन (infertility)" की परिभाषा**, चाहे वह **ART अधिनियम** में हो या **सरोगेसी अधिनियम** में, केवल **प्राथमिक बांझपन (primary infertility)** तक सीमित नहीं है।

- She urged the court to **read down Section 4(iii)(C)(II)** to allow couples with **secondary infertility** to have a second child through surrogacy.
  उन्होंने अदालत से आग्रह किया कि **धारा 4(iii)(C)(II)** को इस तरह पढ़ा जाए कि **द्वितीयक बांझपन (secondary infertility)** वाले दंपति को सरोगेसी के माध्यम से दूसरा बच्चा पाने की अनुमति दी जा सके।

Balancing interests
हितों का संतुलन

- The government pointed to the **provision to the Section**, which offers an **exception for couples** with a child who is **mentally or physically challenged** or suffers from a **life-threatening disorder or fatal illness** with no permanent cure.
  सरकार ने **इस धारा के प्रावधान (proviso)** की ओर संकेत किया, जो उन **दंपतियों को अपवाद (exception)** प्रदान करता है जिनका बच्चा **मानसिक या शारीरिक रूप से विकलांग (mentally or physically challenged)** है या जिसे **जीवन-घातक बीमारी (life-threatening disorder)** या **लाइलाज रोग (fatal illness)** है।

- This applies whether their existing child is **biologically theirs, adopted, or through surrogacy**.
  यह प्रावधान लागू होता है, चाहे उनका वर्तमान बच्चा **जैविक (biological)** हो, **दत्तक (adopted)** हो या **सरोगेसी (surrogacy)** से उत्पन्न हुआ हो।

- "This is a **well-considered provision** which balances the interests of an intending couple who may have a genuine, grave need to have a second child through surrogacy, while ensuring that a surrogate mother does not undergo pregnancy unnecessarily," the **Centre** said, backing the restriction.
  "यह एक **सुविचारित प्रावधान (well-considered provision)** है जो उन दंपतियों के हितों का संतुलन बनाता है जिन्हें सरोगेसी के माध्यम से दूसरा बच्चा पाने की वास्तविक आवश्यकता है, साथ ही यह सुनिश्चित करता है कि **सरोगेट माँ को अनावश्यक गर्भावस्था (pregnancy)** से न गुजरना पड़े," **केंद्र सरकार (Centre)** ने कहा, इस प्रतिबंध का समर्थन करते हुए।

'No one-child policy'
'कोई एक-बच्चा नीति नहीं'

- **Justice Nagarathna** orally remarked in court that the **restriction imposed under the provision was "reasonable"**, and on one occasion, referred to the **burgeoning population of the country**.
  न्यायमूर्ति नागरथना ने अदालत में मौखिक रूप से कहा कि **इस प्रावधान के तहत लगाया गया प्रतिबंध "युक्तिसंगत (reasonable)" है**, और एक अवसर पर उन्होंने देश की **बढ़ती जनसंख्या (burgeoning population)** का उल्लेख किया।

- **Ms. Priya** noted that the country does not have a **"one-child policy"**, insisting that couples could ensure the **best interests of their first child** while availing of surrogacy for a second child.
  सुश्री प्रिया ने कहा कि देश में **"एक-बच्चा नीति (one-child policy)"** नहीं है, और दंपति **अपने पहले बच्चे के सर्वोत्तम हित (best interests)** को सुनिश्चित करते हुए **सरोगेसी के माध्यम से दूसरा बच्चा** प्राप्त कर सकते हैं।

- She referred to the **Adoption Regulations, 2017** under the **Juvenile Justice Act, 2015**, which allow **three children of any gender** to be adopted.

  उन्होंने **किशोर न्याय अधिनियम, 2015 (Juvenile Justice Act, 2015)** के तहत **दत्तक ग्रहण विनियम, 2017 (Adoption Regulations, 2017)** का हवाला दिया, जो **किसी भी लिंग के तीन बच्चों (three children of any gender)** को गोद लेने की अनुमति देता है।

DAKAR
Cameroon security forces killed 48 in election protests, say UN sources

GS I: Mapping   REUTERS

Cameroon's security forces killed 48 civilians as they responded to protests against the re-election of President Paul Biya, according to data shared by two UN sources. The majority of the victims were killed by live rounds although several died from wounds sustained when they were beaten with batons, they added. REUTERS

Cameroon security forces killed 48 in election protests, say UN sources
कैमरून की सुरक्षा बलों ने चुनावी प्रदर्शनों में 48 लोगों की हत्या की, संयुक्त राष्ट्र सूत्रों का दावा

- **Cameroon's security forces** killed **48 civilians** as they responded to **protests against the re-election of President Paul Biya**, according to data shared by **two UN sources**.

  दो **संयुक्त राष्ट्र (UN) सूत्रों** द्वारा साझा किए गए आंकड़ों के अनुसार, **कैमरून की सुरक्षा बलों (Cameroon's security forces)** ने **राष्ट्रपति पॉल बिया (President Paul Biya)** के पुनः निर्वाचन के खिलाफ **प्रदर्शनों (protests)** के दौरान **48 नागरिकों (48 civilians)** की हत्या कर दी।

- The **majority of the victims** were killed by **live rounds**, although several died from **wounds sustained when they were beaten with batons**, they added.

  उन्होंने बताया कि **अधिकांश पीड़ितों (majority of the victims)** की मौत **गोलियों (live rounds)** से हुई, जबकि कुछ की मृत्यु **लाठी से पीटे जाने (beaten with batons)** के दौरान लगी **गंभीर चोटों (wounds sustained)** के कारण हुई।

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Ukraine drones reach deep inside Russia as fight for key city rages on

Russian forces continue to advance in the Pokrovsk direction and appear to be operating with increasing comfort within the city, according to ISW; Moscow said its troops are tightening their encirclement of Ukrainian forces in the region

GS I: Mapping

Associated Press
Reuters
MOSCOW

Ukrainian long-range drones attacked an industrial plant around 1,300 km inside Russia, local officials said on Tuesday, while Ukraine's army remained locked in an intense battle to hold back a Russian push on the key city of Pokrovsk in the eastern Donetsk region.

Two drones targeted an industrial facility in Sterlitamak, a city in Russia's Bashkortostan region, regional Governor Radiy Habirov said in an online statement. He did not specify what facility was targeted but he said that both drones were shot down. There were no casualties, and the facility was operating normally, he said.

Meanwhile, the city administration reported an explosion at the Sterlitamak Petrochemical Plant caused the plant's water treatment facility to partially collapse, adding that the cause of the explosion

Critical hit: Long-range drones An-196 Liutyi of the Ukrainian 14th Separate Unmanned Aerial Systems Regiment stand in line before takeoff in Ukraine. AP

was not known. The plant, which makes rubber and aviation fuel, is not known to have been attacked before.

Explosions were also heard at an industrial area of the Nizhny Novgorod region, some 800 km from Ukraine, where an oil refinery and a petrochemical plant are located, Russian media reported.

Ukrainian officials said

Russia bombarded the southeastern Dnipropetrovsk region with drones, missiles and artillery overnight, killing one person and injuring 11 others, including two children.

Russia fired seven missiles of various types and 130 strike and decoy drones at Ukraine during the night, Ukraine's air force said.

Also, Romania said on

Tuesday that Russia carried out two overnight attacks on Ukraine's Danube port infrastructure, close to the border with the NATO member country.

On the battlefield, Russia and Ukraine are fiercely contesting control of Pokrovsk, a Ukrainian stronghold in the Donetsk region that Moscow's forces have been trying to capture for more than a year.

Russia has in recent months intensified its efforts in the area and has claimed its troops are making progress.

"Russian forces continue to advance in the Pokrovsk direction and appear to be operating with increasing comfort within Pokrovsk itself," the Institute for the Study of War, a Washington think tank, said late Monday.

Russia said on Tuesday that its forces were tightening their encirclement of Ukrainian troops in Pokrovsk.

With fighting raging in the streets of the ruined city, the Russian Defence Ministry said its soldiers had cleared 35 buildings of Ukrainian troops.

It said Russian forces were also squeezing surrounded Ukrainian troops near the town of Kupiansk in the Kharkiv region.

DeepState, a Ukrainian project that maps the front line based on verified open source images, on Tuesday showed that Russian forces had pushed further into Pokrovsk and its environs.

Ukraine drones reach deep inside Russia as fight for key city rages on
मुख्य शहर पर संघर्ष जारी रहते हुए यूक्रेन के ड्रोन रूस के भीतर गहराई तक पहुँचे

- **Russian forces** continue to advance in the **Pokrovsk** direction and appear to be operating with **increasing comfort within the city**, according to **ISW**; **Moscow** said its troops are **tightening their encirclement** of Ukrainian forces in the region.
  आईएसडब्ल्यू (ISW) के अनुसार, **रूसी बल (Russian forces) पोकरोव्स्क दिशा (Pokrovsk direction)** में लगातार आगे बढ़ रहे हैं और शहर के भीतर **बढ़ती सहजता (increasing comfort)** से काम करते दिखाई दे रहे हैं; **मॉस्को (Moscow)** ने कहा कि उसके सैनिक इस क्षेत्र में **यूक्रेनी बलों की घेराबंदी (tightening their encirclement)** को और कड़ा कर रहे हैं।

- **Ukrainian long-range drones** attacked an **industrial plant** around **1,300 km inside Russia**, local officials said on Tuesday, while Ukraine's army remained locked in an intense battle to hold back a **Russian push on the key city of Pokrovsk** in the

eastern Donetsk region.

स्थानीय अधिकारियों ने मंगलवार को कहा कि **यूक्रेनी लंबी दूरी के ड्रोन (Ukrainian long-range drones)** ने रूस के भीतर लगभग **1,300 किमी अंदर स्थित एक औद्योगिक संयंत्र (industrial plant)** पर हमला किया, जबकि **यूक्रेनी सेना (Ukraine's army)** पूर्वी दोनेत्स्क क्षेत्र **(eastern Donetsk region)** के मुख्य शहर पोकरोव्स्क **(Pokrovsk)** पर रूसी हमले **(Russian push)** को रोकने के लिए भीषण लड़ाई में लगी रही।

- **Two drones** targeted an industrial facility in **Sterlitamak**, a city in Russia's **Bashkortostan region**, regional Governor **Radiy Habirov** said in an online statement.

  रूस के **बश्कोर्तोस्तान क्षेत्र (Bashkortostan region)** के **स्टरलिटामक (Sterlitamak)** शहर में **दो ड्रोन (two drones)** ने एक औद्योगिक इकाई को निशाना बनाया, क्षेत्रीय गवर्नर **रादी हाबिरोव (Radiy Habirov)** ने ऑनलाइन बयान में कहा।

- He did not specify what facility was targeted but he said that **both drones were shot down**. There were **no casualties**, and the facility was **operating normally**, he said.

  उन्होंने यह नहीं बताया कि किस इकाई को निशाना बनाया गया था, लेकिन उन्होंने कहा कि **दोनों ड्रोन मार गिराए गए (both drones were shot down)**। **कोई हताहत नहीं हुआ (no casualties)**, और संयंत्र **सामान्य रूप से काम कर रहा है (operating normally)**।

- Meanwhile, the **city administration** reported an **explosion** at the **Sterlitamak Petrochemical Plant** caused the plant's **water treatment facility** to partially collapse, adding that the **cause of the explosion** was not known.

  इस बीच, **शहर प्रशासन (city administration)** ने बताया कि **स्टरलिटामक पेट्रोकेमिकल संयंत्र (Sterlitamak Petrochemical Plant)** में **विस्फोट (explosion)** के कारण संयंत्र का **जल शोधन केंद्र (water treatment facility)** आंशिक रूप से ध्वस्त हो गया, हालांकि **विस्फोट का कारण (cause of explosion)** ज्ञात नहीं है।

- The plant, which makes **rubber and aviation fuel**, is **not known to have been attacked before**.

  यह संयंत्र, जो **रबर और विमानन ईंधन (rubber and aviation fuel)** बनाता है, पर पहले **कभी हमला नहीं हुआ था (not known to have been attacked before)**।

- **Explosions** were also heard at an **industrial area of the Nizhny Novgorod region**, some **800 km from Ukraine**, where an **oil refinery and a petrochemical plant** are located, Russian media reported.

  रूसी मीडिया (Russian media) ने बताया कि यूक्रेन से लगभग **800 किमी दूर (800 km from Ukraine)** स्थित **निझनी नोवगोरोद क्षेत्र (Nizhny Novgorod region)** के **औद्योगिक क्षेत्र (industrial area)** में, जहां **एक तेल रिफाइनरी और पेट्रोकेमिकल संयंत्र (oil refinery and petrochemical plant)** हैं, **विस्फोट (explosions)** की आवाजें सुनी गईं।

- **Ukrainian officials** said Russia bombarded the southeastern **Dnipropetrovsk region** with **drones, missiles and artillery** overnight, killing **one person** and injuring **11 others**, including **two children**.

  यूक्रेनी अधिकारियों (Ukrainian officials) ने कहा कि रूस ने दक्षिण-पूर्वी **द्नीप्रोपेत्रोव्स्क क्षेत्र (Dnipropetrovsk region)** पर ड्रोन, मिसाइलों और तोपखाने **(drones, missiles and artillery)** से रातभर हमला किया, जिसमें **एक व्यक्ति की मौत (one person killed)** हुई और **11 अन्य घायल (11 injured)** हुए, जिनमें **दो बच्चे (two children)** शामिल हैं।

- **Russia fired seven missiles** of various types and **130 strike and decoy drones** at Ukraine during the night, **Ukraine's air force** said.

  यूक्रेन की वायुसेना (Ukraine's air force) ने बताया कि रूस ने रातभर में **विभिन्न प्रकार की सात मिसाइलें (seven missiles)** और **130 स्ट्राइक और धोखे वाले ड्रोन (130 strike and decoy drones)** यूक्रेन पर दागे।

- Also, **Romania** said on Tuesday that **Russia carried out two overnight attacks on Ukraine's Danube port infrastructure**, close to the border with the **NATO member country**.

  रोमानिया (Romania) ने मंगलवार को कहा कि रूस ने यूक्रेन के डेन्यूब बंदरगाह **(Danube port)** की सुविधाओं पर **दो रात्रीकालीन हमले (two overnight attacks)** किए, जो **नाटो सदस्य देश (NATO member country)** की सीमा के पास स्थित है।

- On the battlefield, **Russia and Ukraine** are fiercely contesting **control of Pokrovsk**, a **Ukrainian stronghold in the Donetsk region** that **Moscow's forces** have been

trying to capture for **more than a year**.

युद्धक्षेत्र में, **रूस और यूक्रेन (Russia and Ukraine)** डोनेत्स्क क्षेत्र (Donetsk region) के **यूक्रेनी गढ़ पोकरोव्स्क (Ukrainian stronghold Pokrovsk)** पर नियंत्रण के लिए भीषण संघर्ष कर रहे हैं, जिसे **मॉस्को की सेनाएँ (Moscow's forces) एक वर्ष से अधिक समय से (more than a year)** कब्जा करने की कोशिश कर रही हैं।

- **Russia** has in recent months **intensified its efforts** in the area and has claimed its troops are **making progress**.

  रूस (Russia) ने हाल के महीनों में इस क्षेत्र में **अपने प्रयासों को तेज किया (intensified its efforts)** है और दावा किया है कि उसकी सेनाएँ **प्रगति कर रही हैं (making progress)**।

- "**Russian forces continue to advance in the Pokrovsk direction** and appear to be **operating with increasing comfort** within Pokrovsk itself," the **Institute for the Study of War (ISW)** said late Monday.

  "**रूसी सेनाएँ पोकरोव्स्क दिशा (Pokrovsk direction)** में आगे बढ़ती जा रही हैं और शहर के भीतर **बढ़ती सहजता से कार्य (increasing comfort)** करती दिख रही हैं," **युद्ध अध्ययन संस्थान (Institute for the Study of War - ISW)** ने सोमवार देर रात कहा।

- **Russia** said on Tuesday that its forces were **tightening their encirclement** of **Ukrainian troops** in Pokrovsk.

  रूस (Russia) ने मंगलवार को कहा कि उसकी सेनाएँ **पोकरोव्स्क में यूक्रेनी सैनिकों (Ukrainian troops)** की **घेराबंदी और कड़ी (tightening their encirclement)** कर रही हैं।

- With **fighting raging in the streets of the ruined city**, the **Russian Defence Ministry** said its soldiers had **cleared 35 buildings** of Ukrainian troops.

  ध्वस्त शहर की सड़कों पर जारी लड़ाई (fighting raging in the streets of the ruined city) के बीच, **रूसी रक्षा मंत्रालय (Russian Defence Ministry)** ने कहा कि उसकी सेना ने **35 इमारतों को यूक्रेनी सैनिकों से मुक्त (cleared 35 buildings)** करा लिया है।

- It said **Russian forces** were also **squeezing surrounded Ukrainian troops near the town of Kupiansk in the Kharkiv region**.

  मंत्रालय ने कहा कि **रूसी बल (Russian forces)** खारकीव क्षेत्र (Kharkiv region) के **कूपियांस्क कस्बे (town of Kupiansk)** के पास **घिरे हुए यूक्रेनी सैनिकों पर दबाव (squeezing surrounded troops)** बना रहे हैं।

- **DeepState**, a **Ukrainian project** that maps the front line based on **verified open source images**, on Tuesday showed that **Russian forces had pushed further into Pokrovsk and its environs**.

  डीपस्टेट (DeepState), जो एक **यूक्रेनी परियोजना (Ukrainian project)** है और **सत्यापित ओपन-सोर्स छवियों (verified open source images)** के आधार पर मोर्चे की स्थिति दिखाती है, ने मंगलवार को बताया कि **रूसी सेनाएँ पोकरोव्स्क और उसके आसपास के क्षेत्रों (Pokrovsk and its environs)** में और आगे बढ़ चुकी हैं।

Bodies of poll violence victims being dumped: Tanzania Opposition party

GS I: Mapping

Associated Press
NAIROBI, KENYA

Tanzanian authorities faced mounting concern over killings during and after last week's election, with the largest Opposition party alleging on Tuesday that the security forces were secretly dumping the bodies of hundreds killed in the violence that shocked the region.

Protests spread across the East African country in the aftermath of voting on Wednesday, continuing for several days as young people came into the streets of Dar es Salaam, the commercial capital, and elsewhere to protest what they felt was not a free or fair election. Security agencies cracked down on

Violent incident: Tanzanian authorities are facing growing concern over killings during and after last week's election. AP

protesters by firing live bullets and tear gas canisters, and a nationwide curfew was declared.

President Samia Suluhu Hassan was declared the winner with more than 97% of the vote, a rare landslide victory in the region, despite the low turnout reported by foreign observers. Ms. Hassan's controversial win has only intensified criticism of the election as not credible.

Her rivals – Tundu Lissu of Chadema and Luhaga Mpina of ACT-Wazalendo –

had been prevented from running for the presidency. Human Rights Watch on Tuesday condemned the violent crackdown on protesters in a statement that urged Tanzanian authorities to "end the use of excessive and lethal force against protests, and take steps to ensure accountability" by security forces.

Tanzanian authorities have not responded to Chadema's claim of more than 1,000 deaths.

Asked if the victims were getting funerals, Brenda Rupia, Chadema spokesperson said that the security forces "are holding dead bodies" and that the remains of victims were being secretly dumped to hide the scale of the killings.

Bodies of poll violence victims being dumped: Tanzania Opposition party
चुनाव हिंसा के पीड़ितों के शवों को फेंका जा रहा है: तंजानिया की विपक्षी पार्टी का आरोप

- **Tanzanian authorities** faced mounting concern over **killings during and after last week's election**, with the **largest Opposition party alleging** on Tuesday that the **security forces were secretly dumping the bodies** of hundreds killed in the violence that shocked the region.
  तंजानियाई अधिकारियों (Tanzanian authorities) को **पिछले सप्ताह के चुनाव (last week's election)** के दौरान और बाद में हुई **हत्याओं (killings)** को लेकर बढ़ती चिंता का सामना करना पड़ा, जबकि **सबसे बड़ी विपक्षी पार्टी (largest Opposition party)** ने मंगलवार को आरोप लगाया कि **सुरक्षा बल (security forces)** गुप्त रूप से **हिंसा में मारे गए सैकड़ों लोगों के शवों को फेंक रहे हैं (secretly dumping the bodies)**, जिससे क्षेत्र में आक्रोश फैल गया है।

- **Protests** spread across the **East African country** in the aftermath of voting on Wednesday, continuing for several days as **young people came into the streets of Dar es Salaam**, the commercial capital, and elsewhere to protest what they felt was **not a free or fair election**.
  बुधवार को मतदान (voting) के बाद पूरे **पूर्वी अफ्रीकी देश (East African country)** में **विरोध प्रदर्शन (protests)** फैल गए, जो कई दिनों तक जारी रहे, जब **युवाओं ने वाणिज्यिक राजधानी दार एस सलाम (Dar es Salaam)** और अन्य स्थानों पर सड़कों पर उतरकर विरोध किया, क्योंकि उन्हें लगा कि यह **स्वतंत्र या निष्पक्ष चुनाव (not a free or fair election)** नहीं था।

- **Security agencies** cracked down on protesters by **firing live bullets and tear gas canisters**, and a **nationwide curfew** was declared.
  सुरक्षा एजेंसियों (Security agencies) ने प्रदर्शनकारियों पर **जिंदा गोलियां और आंसू गैस के गोले (live bullets and tear gas canisters)** दागे, और **पूरे देश में कर्फ्यू (nationwide curfew)** घोषित कर दिया गया।

- **President Samia Suluhu Hassan** was declared the winner with **more than 97% of the vote**, a **rare landslide victory** in the region, despite the **low turnout reported by foreign observers**.

  राष्ट्रपति सामिया सुलुहू हसन (President Samia Suluhu Hassan) को 97% से अधिक मतों (more than 97% of the vote) से विजेता घोषित किया गया, जो इस क्षेत्र में एक **दुर्लभ प्रचंड जीत (rare landslide victory)** है, हालांकि **विदेशी पर्यवेक्षकों (foreign observers)** ने **कम मतदान (low turnout)** की रिपोर्ट दी थी।

- **Ms. Hassan's controversial win** has only **intensified criticism** of the election as **not credible**.

  सुश्री हसन की विवादास्पद जीत (Ms. Hassan's controversial win) ने चुनाव को **अविश्वसनीय (not credible)** बताते हुए **आलोचनाओं को और तेज (intensified criticism)** कर दिया है।

- Her rivals — **Tundu Lissu of Chadema** and **Luhaga Mpina of ACT-Wazalendo** — had been **prevented from running for the presidency**.

  उनके प्रतिद्वंद्वी — **चडेमा (Chadema)** के **तुंडु लिस्सू (Tundu Lissu)** और एसीटी-वाज़ालेंडो (ACT-Wazalendo) के **लुहागा म्पीना (Luhaga Mpina)** — को **राष्ट्रपति पद के लिए चुनाव लड़ने से रोका गया (prevented from running for the presidency)** था।

- **Human Rights Watch** on Tuesday **condemned the violent crackdown** on protesters in a statement that urged **Tanzanian authorities** to "**end the use of excessive and lethal force** against protests, and take steps to ensure **accountability** by security forces."

  ह्यूमन राइट्स वॉच (Human Rights Watch) ने मंगलवार को एक बयान में प्रदर्शनकारियों पर हुए **हिंसक दमन (violent crackdown)** की निंदा की और **तंजानियाई अधिकारियों (Tanzanian authorities)** से अपील की कि वे "**अत्यधिक और घातक बल (excessive and lethal force)** के उपयोग को समाप्त करें" और **सुरक्षा बलों की जवाबदेही (accountability)** सुनिश्चित करने के लिए कदम उठाएँ।

- **Tanzanian authorities** have **not responded** to Chadema's claim of **more than 1,000 deaths**.

  तंजानियाई अधिकारियों (Tanzanian authorities) ने **चडेमा (Chadema)** के 1,000 से अधिक मौतों (more than 1,000 deaths) के दावे पर **कोई प्रतिक्रिया नहीं दी (not responded)** है।

- Asked if the victims were getting funerals, **Brenda Rupia**, **Chadema spokesperson**, said that the **security forces "are holding dead bodies"** and that the **remains of victims were being secretly dumped** to hide the scale of the killings.

  जब पूछा गया कि क्या पीड़ितों का अंतिम संस्कार किया जा रहा है, तो **चडेमा प्रवक्ता ब्रेंडा रुपिया (Brenda Rupia, Chadema spokesperson)** ने कहा कि "**सुरक्षा बल शवों को अपने पास रखे हुए हैं (security forces are holding dead bodies)**" और हत्या की वास्तविक संख्या छिपाने के लिए (to hide the scale of the killings) पीड़ितों के शवों को गुप्त रूप से फेंका जा रहा है (remains were being secretly dumped)।

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1.	**EC kicks off SIR 2.0 in 9 States and 3 U.T.s** 9 राज्यों और 3 केंद्र शासित प्रदेशों में ईसी ने शुरू किया एस.आई.आर 2.0
2.	**UPSC maintains status quo on T.N.'s DGP candidates** तमिलनाडु के डीजीपी उम्मीदवारों पर यूपीएससी ने यथास्थिति बनाए रखी
3.	**How BRICS is challenging SWIFT** कैसे BRICS, SWIFT को चुनौती दे रहा है
4.	**What is the TLP challenge for the Pakistan government?** पाकिस्तान सरकार के लिए TLP की चुनौती क्या है?
5.	**A nationwide SIR: the need to check double entries in the electoral list** राष्ट्रव्यापी SIR: निर्वाचन सूची में दोहरी प्रविष्टियों की जांच की आवश्यकता

EC kicks off SIR 2.0 in 9 States and 3 U.T.s

The exercise will cover 51 crore voters; West Bengal CM Mamata Banerjee has alleged 'silent, invisible rigging'; ruling DMK in Tamil Nadu moves SC, terming exercise 'arbitrary, unreasonable, and prone to disenfranchising voters'; officers are going door-to-door handing out partially filled enumeration forms; every elector will receive a unique form

GS II: Elelctions

Sreeparna Chakrabarty
Shiv Sahay Singh
NEW DELHI/KOLKATA

The Election Commission on Tuesday launched the second phase of the special intensive revision (SIR) of electoral rolls in nine States and three Union Territories, covering around 51 crore voters, with booth-level officers distributing enumeration forms to electors.

The exercise, however, drew sharp opposition from several parties. West Bengal Chief Minister and Trinamool Congress leader Mamata Banerjee led a rally in Kolkata, alleging "silent, invisible rigging", while the ruling Dravida Munnetra Kazhagam (DMK) in Tamil Nadu challenged the exercise in the Supreme Court, calling it "arbitrary, unreasonable, and prone to disenfranchising voters".

The BJP has welcomed the clean-up exercise as a step towards ensuring greater transparency on the electoral rolls.

The Election Commission said booth-level officers (BLO) have started going door-to-door to hand out partially filled enumeration forms. Every elector will receive a unique form, it said. During the enumeration phase, which will continue till December 4, more than 5.3 lakh BLOs will visit houses at least thrice for the distribution and collection of forms.

Apart from the BLOs, 7.64 lakh booth-level agents (BLAs) appointed by political parties, 10,448 electoral registration officers and assistant EROs, and 321 DEOs have been pressed into action to conduct the SIR exercise in a smooth, orderly, and voter friendly manner, a senior official said.

The 12 States and Union Territories where the SIR is being conducted are the Andaman and Nicobar Islands, Lakshadweep, Chhattisgarh, Goa, Gujarat, Kerala, Madhya Pradesh, Puducherry, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

Poll-bound States
Among these, Tamil Nadu, Kerala, West Bengal, and Puducherry will go to the polls in 2026.

The first phase of the SIR exercise was carried out in Bihar earlier this year, following which over 68 lakh names were deleted from the electoral rolls.

Addressing an anti-SIR rally in Kolkata, Ms. Banerjee said she would ensure the fall of the BJP-led government at the Centre if a single eligible voter was omitted from the electoral rolls.

She accused the BJP and the Election Commission of using the SIR as a political tool to intimidate voters, adding that the BJP wanted to come to power by removing legitimate voters from the list. "These people think they will remove two crore names and deport people to Bangladesh, or move them to detention camps and throw them out of the country to capture power," she said.

The march came on a day election officials said 16 lakh enumeration forms had been distributed in the State. Raising questions about the necessity of a hurriedly drawn out SIR, the Trinamool Congress chief asked, "Today, after all these years of independence, do we still have to prove that we are Indians?"

In Uttar Pradesh, the exercise was launched under the theme *Shuddh Nirvachak Namavali - Majboot Loktantra* (Clean Electoral Roll - Strong Democracy).

In Kerala, Chief Minister Pinarayi Vijayan has called for an all-party meeting online on Wednesday to seek consensus on the implementation of the SIR. Most parties in the State – barring the BJP – have raised concerns over its timing.

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Screening time: A booth-level officer hands over enumeration forms to voters in Kolkata on Tuesday as part of the special intensive revision of electoral rolls that got under way in West Bengal. PTI

EC kicks off SIR 2.0 in 9 States and 3 U.T.s
9 राज्यों और 3 केंद्र शासित प्रदेशों में ईसी ने शुरू किया एस.आई.आर 2.0

- The exercise will cover **51 crore voters**; West Bengal CM **Mamata Banerjee** has alleged **'silent, invisible rigging'**; ruling **DMK in Tamil Nadu** moves **SC**, terming exercise **'arbitrary, unreasonable, and prone to disenfranchising voters'**; officers are going door-to-door handing out **partially filled enumeration forms**; every elector will receive a **unique form**.

  यह अभ्यास **51 करोड़ मतदाताओं** को कवर करेगा; **पश्चिम बंगाल की मुख्यमंत्री ममता बनर्जी** ने 'साइलेंट, इनविज़िबल रिगिंग' का आरोप लगाया; **तमिलनाडु में सत्तारूढ़ डीएमके** ने **सुप्रीम कोर्ट** का रुख किया, इस अभ्यास को 'मनमाना, अव्यवहारिक और मतदाताओं के अधिकार छीनने वाला' बताया; अधिकारी **घर-घर जाकर आंशिक रूप से भरे हुए नामांकन फॉर्म** वितरित कर रहे हैं; प्रत्येक मतदाता को एक **अद्वितीय फॉर्म** प्राप्त होगा।

- The **Election Commission** on Tuesday launched the **second phase of the Special Intensive Revision (SIR)** of electoral rolls in **nine States** and **three Union Territories**, covering around **51 crore voters**, with **booth-level officers distributing enumeration forms** to electors.

  चुनाव आयोग ने मंगलवार को **विशेष गहन पुनरीक्षण (SIR)** के **दूसरे चरण** की शुरुआत **9 राज्यों और 3 केंद्र शासित प्रदेशों** में की, जिसमें लगभग **51 करोड़ मतदाता** शामिल हैं, और **बूथ-स्तरीय अधिकारी** मतदाताओं को **नामांकन फॉर्म वितरित** कर रहे हैं।

- The exercise, however, drew **sharp opposition from several parties**. **West Bengal Chief Minister and Trinamool Congress leader Mamata Banerjee** led a **rally in Kolkata**, alleging **"silent, invisible rigging"**, while the **ruling Dravida Munnetra Kazhagam (DMK)** in **Tamil Nadu** challenged the exercise in the **Supreme Court**, calling it **"arbitrary, unreasonable, and prone to disenfranchising voters."**

  हालांकि, इस अभ्यास को **कई दलों से कड़ी विरोध प्रतिक्रिया** मिली। **पश्चिम बंगाल की मुख्यमंत्री और तृणमूल कांग्रेस नेता ममता बनर्जी** ने **कोलकाता में रैली** का नेतृत्व किया, जिसमें उन्होंने **"साइलेंट, इनविज़िबल रिगिंग"** का आरोप लगाया, जबकि **तमिलनाडु की सत्तारूढ़ द्रविड़ मुनेत्र कड़गम (DMK)** ने इसे **सुप्रीम कोर्ट में चुनौती** दी और इसे **"मनमाना, अव्यवहारिक और मतदाताओं के अधिकार छीनने वाला"** बताया।

- The **BJP** has **welcomed** the **clean-up exercise** as a step towards ensuring **greater transparency** on the electoral rolls.

  भाजपा ने इस **सफाई अभियान** का **स्वागत किया**, इसे **मतदाता सूची में अधिक पारदर्शिता** सुनिश्चित करने की दिशा में एक कदम बताया।

- The **Election Commission** said **booth-level officers (BLOs)** have started going **door-to-door** to hand out **partially filled enumeration forms**. Every elector will receive a **unique form**, it said.

  चुनाव आयोग ने कहा कि **बूथ-स्तरीय अधिकारी (BLOs)** घर-घर जाकर आंशिक रूप से भरे हुए नामांकन फॉर्म वितरित कर रहे हैं। आयोग ने कहा कि प्रत्येक मतदाता को एक **अद्वितीय फॉर्म** दिया जाएगा।

- During the **enumeration phase**, which will continue till **December 4**, more than **5.3 lakh BLOs** will visit houses **at least thrice** for the **distribution and collection of forms**.

  नामांकन चरण के दौरान, जो **4 दिसंबर** तक चलेगा, **5.3 लाख से अधिक BLOs** फॉर्म के वितरण और संग्रह के लिए **कम से कम तीन बार** घरों का दौरा करेंगे।

- Apart from the BLOs, **7.64 lakh booth-level agents (BLAs)** appointed by political parties, **10,448 electoral registration officers and assistant EROs**, and **321 DEOs**

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have been pressed into action to conduct the **SIR exercise** in a **smooth, orderly, and voter-friendly manner**, a senior official said.

BLOs के अलावा, राजनीतिक दलों द्वारा नियुक्त **7.64 लाख बूथ-स्तरीय एजेंट (BLAs)**, **10,448 मतदाता पंजीकरण अधिकारी और सहायक EROs**, और **321 जिला निर्वाचन अधिकारी (DEOs)** को इस **SIR अभ्यास** को **सुगम, व्यवस्थित और मतदाता-अनुकूल तरीके** से संचालित करने के लिए तैनात किया गया है, एक वरिष्ठ अधिकारी ने कहा।

- The **12 States and Union Territories** where the SIR is being conducted are the **Andaman and Nicobar Islands, Lakshadweep, Chhattisgarh, Goa, Gujarat, Kerala, Madhya Pradesh, Puducherry, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.**

  वे **12 राज्य और केंद्र शासित प्रदेश** जहाँ यह SIR संचालित किया जा रहा है, वे हैं — **अंडमान और निकोबार द्वीपसमूह, लक्षद्वीप, छत्तीसगढ़, गोवा, गुजरात, केरल, मध्य प्रदेश, पुडुचेरी, राजस्थान, तमिलनाडु, उत्तर प्रदेश और पश्चिम बंगाल।**

- **Poll-bound States:** Among these, **Tamil Nadu, Kerala, West Bengal, and Puducherry** will go to the **polls in 2026.**

  चुनाव वाले राज्य: इनमें से **तमिलनाडु, केरल, पश्चिम बंगाल और पुडुचेरी** में **2026 में चुनाव** होंगे।

- The **first phase** of the SIR exercise was carried out in **Bihar** earlier this year, following which over **68 lakh names** were **deleted from the electoral rolls.**

  SIR अभ्यास का **पहला चरण** इस वर्ष की शुरुआत में **बिहार** में किया गया था, जिसके बाद **68 लाख** से अधिक नामों को मतदाता सूची से हटाया गया।

- Addressing an **anti-SIR rally** in **Kolkata**, Ms. **Banerjee** said she would ensure the **fall of the BJP-led government at the Centre** if a single **eligible voter was omitted** from the electoral rolls.

  कोलकाता में आयोजित एक एंटी-SIR रैली को संबोधित करते हुए **सुश्री बनर्जी** ने कहा कि अगर एक भी **योग्य मतदाता का नाम मतदाता सूची से हटाया गया**, तो वह **केंद्र में भाजपा नेतृत्व वाली सरकार को गिरा देंगी।**

- She accused the **BJP and the Election Commission** of using the SIR as a **political tool** to intimidate voters, adding that the **BJP wanted to come to power by removing legitimate voters** from the list.

  उन्होंने **भाजपा और चुनाव आयोग** पर SIR को **राजनीतिक हथियार** के रूप में उपयोग करने का आरोप लगाया और कहा कि **भाजपा वैध मतदाताओं के नाम हटाकर सत्ता में आना चाहती है।**

- "These people think they will **remove two crore names** and **deport people to Bangladesh**, or move them to **detention camps** and throw them out of the country to **capture power**," she said.

  उन्होंने कहा, "ये लोग सोचते हैं कि वे **दो करोड़ नाम हटा देंगे**, लोगों को **बांग्लादेश भेज देंगे**, या उन्हें **डिटेंशन कैंपों में डालकर देश से बाहर निकाल देंगे** ताकि **सत्ता पर कब्जा** कर सकें।"

- The **march** came on a day election officials said **16 lakh enumeration forms** had been **distributed in the State.**

  यह **मार्च** उस दिन हुआ जब चुनाव अधिकारियों ने कहा कि **राज्य में 16 लाख नामांकन फॉर्म वितरित किए जा चुके हैं।**

- Raising questions about the **necessity of a hurriedly drawn out SIR**, the **Trinamool Congress chief** asked, "Today, after all these years of independence, do we still have to **prove that we are Indians?**"

  जल्दबाजी में किए गए SIR की आवश्यकता पर सवाल उठाते हुए, **तृणमूल कांग्रेस प्रमुख** ने पूछा, "आज, स्वतंत्रता के इतने वर्षों बाद भी, क्या हमें अब भी **यह साबित करना होगा कि हम भारतीय हैं?**"

- In **Uttar Pradesh**, the exercise was launched under the theme **'Shuddh Nirvachak Namavali – Majboot Loktantra'** (Clean Electoral Roll – Strong Democracy).

  उत्तर प्रदेश में यह अभ्यास **'शुद्ध निर्वाचक नामावली – मजबूत लोकतंत्र'** (स्वच्छ मतदाता सूची – सशक्त लोकतंत्र) विषय के तहत शुरू किया गया।

- In **Kerala**, **Chief Minister Pinarayi Vijayan** has called for an **all-party meeting online** on Wednesday to seek **consensus** on the implementation of the SIR.

  केरल में, **मुख्यमंत्री पिनराई विजयन** ने SIR के क्रियान्वयन पर **सहमति प्राप्त करने के लिए बुधवार** को एक **सर्वदलीय ऑनलाइन बैठक** बुलाने का आह्वान किया है।

- Most parties in the State — **barring the BJP** — have raised **concerns over its timing.**

UPSC maintains *status quo* on T.N.'s DGP candidates

GS II: Governance: Appointments

S. Vijay Kumar
CHENNAI

The Union Public Service Commission (UPSC) has maintained *status quo* in the matter of appointing a new Director-General of Police (DGP)/Head of Police Force (HoPF) for Tamil Nadu.

The representation of Chief Secretary N. Muruganandham explaining the reasons why the names of three DGPs shortlisted by the UPSC was not acceptable to the State has been "disposed".

According to official sources, the UPSC has written back to the Tamil Nadu government reiterating its decision on the panel of DGP candidates fit for appointment as DGP/HoPF. "We have disposed of the representation from Tamil Nadu...status quo remains," a senior official in the Central agency told

Commission disposes of plea by State rejecting the names of IPS officers shortlisted for the top post. FILE PHOTO

The Hindu on Tuesday.

The appointment of a new DGP/HoPF was necessitated following the retirement of Shankar Jiwal on August 30, 2025.

Reason for delay
Though the proposal comprising the names of eligible DGP-rank officers to the top post should have been sent to the UPSC three months before the anticipated vacancy (August 30, 2025), it was handed over in person only on August 29, 2025. A senior officer moving the Central Administrative Tribunal and then the Supreme Court seeking to include his name in the panel was cited as the reason for the delay. After G. Venkatraman was appointed as in-charge for the post of DGP/HoPF, a Madurai-based advocate Henri Tiphagne moved a contempt petition accusing the State government of not following the Supreme Court guidelines in the Prakash Singh case (in the matter of appointing DGPs). Passing orders in the case, the apex court requested the UPSC to expeditiously complete the process of empanelment and directed the Tamil Nadu government to take steps forthwith to appoint a regular DGP.

Committee meets
The UPSC convened the Empanelment Committee meeting on September 26, and recommended the names of top three officers (Seema Agrawal, Rajeev Kumar, and Sandeep Rai Rathore) as fit for appointment as DGP/HoPF.

However, the Chief Secretary wrote to the UPSC saying the panel of shortlisted officers was not acceptable to the State government and gave a detailed explanation justifying the same, the sources said.

Draws LoP's criticism
With the delay in appointing a regular DGP/HoPF drawing criticism from Leader of the Opposition and AIADMK general secretary Edappadi K. Palaniswami, State Law Minister S. Reghupathy issued a statement on October 22, accusing the Centre of ignoring Tamil Nadu's views and trying to appoint an officer of its choice as DGP.

He said the UPSC had finalised the names of certain officers despite strong objections raised by the State at the Empanelment Committee Meeting. The Tamil Nadu government would take all necessary steps to defend its rights on the issue, he added.

राज्य में अधिकांश दलों — **भाजपा को छोड़कर** — ने इसके **समय को लेकर चिंता व्यक्त की है।**

UPSC maintains status quo on T.N.'s DGP candidates
तमिलनाडु के डीजीपी उम्मीदवारों पर यूपीएससी ने यथास्थिति बनाए रखी

- The **Union Public Service Commission (UPSC)** has maintained **status quo** in the matter of appointing a new **Director-General of Police (DGP)/Head of Police Force (HoPF)** for **Tamil Nadu**.
  संघ लोक सेवा आयोग (UPSC) ने **तमिलनाडु** के लिए नए **पुलिस महानिदेशक (DGP)/पुलिस बल प्रमुख (HoPF)** की नियुक्ति के मामले में **यथास्थिति बनाए रखी** है।

- The representation of **Chief Secretary N. Muruganandham** explaining the reasons why the names of three DGPs shortlisted by the UPSC was not acceptable to the State has been **"disposed"**.
  मुख्य सचिव एन. मुरुगनंधम द्वारा यह समझाने वाला प्रतिनिधित्व कि **UPSC द्वारा चयनित तीन DGP** के नाम राज्य को क्यों स्वीकार्य नहीं हैं, उसे **"निपटाया गया"** है।

- According to **official sources**, the **UPSC** has written back to the **Tamil Nadu government** reiterating its decision on the **panel of DGP candidates fit for appointment** as DGP/HoPF.
  आधिकारिक सूत्रों के अनुसार, **UPSC** ने **तमिलनाडु सरकार** को वापस लिखा है और **DGP/HoPF नियुक्ति के लिए उपयुक्त उम्मीदवारों के पैनल** पर अपने निर्णय को दोहराया है।

- "We have **disposed of the representation** from Tamil Nadu... **status quo remains**," a **senior official** in the Central agency told **The Hindu** on Tuesday.

"हमने **तमिलनाडु के प्रतिनिधित्व को निपटा दिया है... **यथास्थिति बनी रहेगी**," एक **केंद्रीय एजेंसी के वरिष्ठ अधिकारी** ने मंगलवार को **द हिंदू** को बताया।

- The appointment of a new **DGP/HoPF** was necessitated following the **retirement of Shankar Jiwal** on **August 30, 2025**.
  नए **DGP/HoPF** की नियुक्ति की आवश्यकता **शंकर जीवाल के 30 अगस्त, 2025 को सेवानिवृत्त होने** के बाद उत्पन्न हुई।

- **Reason for delay** — Though the proposal comprising the names of **eligible DGP-rank officers** to the top post should have been sent to the UPSC **three months before** the anticipated vacancy (August 30, 2025), it was handed over in person **only on August 29, 2025.**
  देरी का कारण — शीर्ष पद के लिए **योग्य DGP-रैंक अधिकारियों** के नाम वाला प्रस्ताव UPSC को **अनुमानित रिक्ति (30 अगस्त, 2025)** से **तीन महीने पहले** भेजा जाना चाहिए था, लेकिन इसे व्यक्तिगत रूप से **केवल 29 अगस्त, 2025** को सौंपा गया।

- A **senior officer** moving the **Central Administrative Tribunal** and then the **Supreme Court** seeking to include his name in the panel was cited as the **reason for the delay**.
  एक **वरिष्ठ अधिकारी** द्वारा अपना नाम पैनल में शामिल करने के लिए पहले **केंद्रीय प्रशासनिक न्यायाधिकरण** और फिर **सुप्रीम कोर्ट** में याचिका दायर करना **देरी का कारण** बताया गया।

- After **G. Venkatraman** was appointed as **in-charge for the post of DGP/HoPF**, a **Madurai-based advocate Henri Tiphagne** moved a **contempt petition** accusing the State government of **not following Supreme Court guidelines** in the **Prakash Singh case** (in the matter of appointing DGPs).
  जी. वेंकटरमण को **DGP/HoPF** के पद का **प्रभारी** नियुक्त करने के बाद, **मदुरै के अधिवक्ता हेनरी टिपाग्ने** ने **अवमानना याचिका** दायर की, जिसमें राज्य सरकार पर **प्रकाश सिंह मामले** में डीजीपी की नियुक्ति से संबंधित सुप्रीम कोर्ट के दिशा-निर्देशों का पालन न करने का आरोप लगाया।

- Passing orders in the case, the **apex court** requested the **UPSC** to **expeditiously complete the process of empanelment** and directed the **Tamil Nadu government** to take steps forthwith to **appoint a regular DGP.**
  इस मामले में आदेश पारित करते हुए, **सर्वोच्च न्यायालय** ने **UPSC** से पैनल तैयार करने की प्रक्रिया को शीघ्र पूरा करने का अनुरोध किया और **तमिलनाडु सरकार** को नियमित **DGP** नियुक्त करने के लिए तत्काल कदम उठाने का निर्देश दिया।

- **Committee meets** — The **UPSC** convened the **Empanelment Committee meeting** on **September 26**, and **recommended** the names of top three officers (**Seema Agrawal, Rajeev Kumar, and Sandeep Rai Rathore**) as **fit for appointment** as DGP/HoPF.
  समिति की बैठक — UPSC ने **26 सितंबर** को **पैनल समिति की बैठक** बुलाई और **शीर्ष तीन अधिकारियों (सीमा अग्रवाल, राजीव कुमार और संदीप राय राठौर)** के नाम **DGP/HoPF** के रूप में नियुक्ति के लिए **उपयुक्त** बताए।

- However, the **Chief Secretary** wrote to the **UPSC** saying the **panel of shortlisted officers was not acceptable** to the **State government** and gave a **detailed explanation** justifying the same, the sources said.
  हालांकि, **मुख्य सचिव** ने **UPSC** को लिखा कि **शॉर्टलिस्ट किए गए अधिकारियों का पैनल राज्य सरकार को स्वीकार्य नहीं है** और इसके समर्थन में एक **विस्तृत स्पष्टीकरण** दिया गया, सूत्रों ने बताया।

- **Draws LoP's criticism** — With the **delay in appointing a regular DGP/HoPF** drawing criticism from **Leader of the Opposition (LoP)** and **AIADMK general secretary Edappadi K. Palaniswami**, **State Law Minister S. Reghupathy** issued a statement on **October 22**, accusing the **Centre** of **ignoring Tamil Nadu's views** and trying to **appoint an officer of its choice** as DGP.
  विपक्ष नेता की आलोचना — नियमित **DGP/HoPF** की नियुक्ति में देरी पर विपक्ष के नेता और **एआईएडीएमके महासचिव एडप्पादी के. पलनीस्वामी** की आलोचना के बीच, **राज्य के कानून मंत्री एस. रघुपति** ने **22 अक्टूबर** को एक बयान जारी कर **केंद्र सरकार** पर **तमिलनाडु के विचारों की अनदेखी करने** और अपनी पसंद के अधिकारी को DGP के रूप में **नियुक्त करने की कोशिश करने** का आरोप लगाया।

- He said the **UPSC had finalised the names of certain officers despite strong objections** raised by the **State** at the **Empanelment Committee Meeting**.
  उन्होंने कहा कि **पैनल समिति की बैठक** में राज्य द्वारा कड़े आपत्तियों के बावजूद UPSC ने कुछ अधिकारियों के नामों को अंतिम रूप दिया।
- The **Tamil Nadu government** would take **all necessary steps to defend its rights** on the issue, he added.
  उन्होंने कहा कि **तमिलनाडु सरकार** इस मुद्दे पर अपने अधिकारों की रक्षा के लिए सभी आवश्यक कदम उठाएगी।

How BRICS is challenging SWIFT

The BRICS grouping's motivation to challenge Western financial dominance is driven by a desire for greater financial sovereignty and reduced exposure to U.S. sanctions. However, navigating the maze of individual countries' ambitions with respect to their own payment systems could dent early progress towards this goal

GS II: International Platforms

ECONOMIC NOTES

Biswajit Dhar

For over a decade, the BRICS have taken a series of steps showing their increasing determination to reduce dependence on the dollar-dominated international financial system. The Fortaleza Summit in 2014 marked the beginning of this process with the grouping taking the initiative of setting up financial institutions to meet not only their needs but also of other developing countries. The New Development Bank, the BRICS' development bank, and the Contingent Reserve Arrangement, their lender of last resort, was the first time developing countries had established financial institutions, until then, the exclusive preserve of advanced countries.

The following year, after the imposition of Western sanctions on Russia for deployment of its troops in Crimea, the BRICS grouping decided to explore the potential of expanding the use of their national currencies in inter se transactions. In 2017, the grouping agreed to communicate closely to enhance currency cooperation, including through currency swap, local currency settlement, and local currency direct investment. At the turn of the decade, the grouping agreed to set up the BRICS Payments Task Force to develop systems to facilitate transactions between member countries. This step seemed to come together at the Kazan Summit in 2024 wherein BRICS leaders underscored the importance of "strengthening of correspondent banking networks within BRICS and enabling settlements in local currencies in line with BRICS Cross-Border Payments Initiative".

Challenging status quo

The BRICS Cross-Border Payments Initiative, or BRICS Pay is the most concrete step that the grouping has taken to explore the possibility of reducing their dependence on the "SWIFT network", the messaging system used by over 11,000

New currency: The plenary session of the 16th BRICS summit, in Kazan, Russia on October 23, 2024. ANI

banks and financial institutions worldwide for international money transfers, and which is controlled by the G-10 central banks. BRICS' motivation to challenge Western financial dominance is driven by a desire for greater financial sovereignty and reduced exposure to U.S. sanctions. The decision to include Iran in the grouping in 2024, a country that has long faced similar sanctions, lent further relevance to this objective. However, the development that attracted most attention was the symbolic step taken by the BRICS during the Kazan summit to unveil a BRICS banknote. This symbolic move ignited discussions about the intent of emerging economies to move away from the dominance of the dollar. This was especially so since it raised the hackles of the then President-elect Donald Trump who threatened to impose 100% tariffs on members of the grouping if they were to "create a new BRICS currency, [or] back any other currency to replace the mighty U.S. Dollar".

Building BRICS Pay

Amid these developments, the possibility that holds out maximum promise is BRICS Pay. This sentiment was reflected in the grouping's Rio Summit Declaration earlier in the year wherein they "agreed to continue the discussion on the BRICS Cross-Border Payments Initiative, and [acknowledged] the progress made by the BRICS Payment Task Force (BPTF) in identifying possible pathways to support the continuation of discussions on the potential for greater interoperability of BRICS payment systems".

Clearly, BRICS is in a good position to develop a new financial network. Besides

the strong motivation to bypass the dollar-dominated system and avoid Western sanctions, these countries have the necessary infrastructure to put in place BRICS Pay. The Russian System for Transfer of Financial Messages (SPFS), the Chinese Cross-Border Interbank Payment System (CIPS), India's Unified Payments Interface (UPI) and Brazil's Pix system are well-equipped to support the proposed network. Of course, the interoperability of these systems is essential for creating a cohesive BRICS-led payment infrastructure that can rival SWIFT in scope and reliability, albeit within a more limited geographic and political bloc.

A prototype demonstration of BRICS Pay was unveiled in Moscow in October 2024, marking an important landmark in the project's progress. Expectedly, Russia is most enthusiastic about this project, but the remaining original BRICS nations seem to be more circumspect because of interests in promoting their own platforms globally. India's UPI is accepted in nine countries, but is yet to find acceptance within BRICS. China's increasing clout in the international financial system and the prominence its currency (the RMB) has received after it was included in the basket of currencies making up the Special Drawing Right has increased the acceptance of CIPS, which currently has participants in more than 120 countries, including all BRICS members with the exception of India. Brazil's Pix system, introduced in 2020 and operated by the country's central bank, is used across several Latin American countries. While navigating through the maze of ambitions of individual countries to promote their own payment systems could dent the progress towards an early realisation of BRICS Pay, Mr. Trump's aggressive intent, particularly against members of the grouping, could force them into a political understanding towards launching their payment system, sooner than expected.

Biswajit Dhar is a trade economist and former professor, Jawaharlal Nehru University.

THE GIST

▼ In 2017, the grouping agreed to communicate closely to enhance currency cooperation, including through currency swap, local currency settlement, and local currency direct investment.

▼ The BRICS Cross-Border Payments Initiative, or BRICS Pay is the most concrete step that the grouping has taken to explore the possibility of reducing their dependence on the "SWIFT network", the messaging system used by over 11,000 banks and financial institutions worldwide for international money transfers.

▼ A prototype demonstration of BRICS Pay was unveiled in Moscow in October 2024, marking an important landmark in the project's progress.

How BRICS is challenging SWIFT
कैसे BRICS, SWIFT को चुनौती दे रहा है

- For **over a decade**, the **BRICS** have taken a series of steps showing their **increasing determination** to reduce dependence on the **dollar-dominated international financial system**.
  एक दशक से अधिक समय से, ब्रिक्स (BRICS) ने **डॉलर-प्रधान अंतर्राष्ट्रीय वित्तीय प्रणाली** पर निर्भरता कम करने के अपने **बढ़ते संकल्प** को दर्शाने वाले कई कदम उठाए हैं।
- The **Fortaleza Summit (2014)** marked the **beginning** of this process with the grouping taking the initiative of **setting up financial institutions** to meet not only their needs but also those of **other developing countries**.

2014 के फोर्टलेज़ा शिखर सम्मेलन ने इस प्रक्रिया की **शुरुआत** की, जब समूह ने **वित्तीय संस्थानों की स्थापना** की पहल की, ताकि केवल अपनी नहीं बल्कि **अन्य विकासशील देशों की आवश्यकताओं** को भी पूरा किया जा सके।

- The **New Development Bank (NDB)** and the **Contingent Reserve Arrangement (CRA)** — BRICS' own financial institutions — represented the **first time** developing countries had created such mechanisms, which were previously the **exclusive preserve of advanced nations**.

  न्यू डेवलपमेंट बैंक (NDB) और **कॉन्टिंजेंट रिज़र्व अरेंजमेंट (CRA)** — ब्रिक्स के अपने वित्तीय संस्थान — यह **पहला अवसर** था जब **विकासशील देशों** ने ऐसे तंत्र बनाए जो अब तक केवल **विकसित देशों के नियंत्रण में** थे।

- In **2015**, after **Western sanctions on Russia** for its **Crimea troop deployment**, BRICS decided to **explore the potential of using national currencies** in **inter se transactions**.

  2015 में, क्राइमिया में सैनिकों की तैनाती पर रूस पर पश्चिमी प्रतिबंधों के बाद, **ब्रिक्स समूह** ने **आपसी लेनदेन में राष्ट्रीय मुद्राओं के उपयोग की संभावनाओं** का पता लगाने का निर्णय लिया।

- In **2017**, the grouping agreed to **enhance currency cooperation** through **currency swaps**, **local currency settlements**, and **direct investments in local currencies**.

  2017 में, समूह ने **मुद्रा सहयोग बढ़ाने** पर सहमति व्यक्त की, जिसमें **मुद्रा विनिमय (currency swap)**, **स्थानीय मुद्रा में लेनदेन**, और **स्थानीय मुद्रा में प्रत्यक्ष निवेश** शामिल था।

- At the **turn of the decade**, BRICS decided to set up the **BRICS Payments Task Force** to develop systems to **facilitate cross-border transactions** among member countries.

  दशक के मोड़ पर, ब्रिक्स ने **सदस्य देशों के बीच सीमा-पार लेनदेन को सुगम बनाने** के लिए **ब्रिक्स पेमेंट्स टास्क फोर्स** की स्थापना का निर्णय लिया।

- This effort culminated at the **Kazan Summit (2024)** where BRICS leaders emphasized **"strengthening correspondent banking networks"** and **enabling settlements in local currencies** under the **BRICS Cross-Border Payments Initiative**.

  यह प्रयास **2024 के कज़ान शिखर सम्मेलन** में चरम पर पहुंचा, जहाँ ब्रिक्स नेताओं ने **"सदस्य देशों के बीच बैंकिंग नेटवर्क को मजबूत करने"** और **स्थानीय मुद्राओं में निपटान सक्षम करने** पर जोर दिया, जो **ब्रिक्स क्रॉस-बॉर्डर पेमेंट्स इनिशिएटिव** का हिस्सा था।

Challenging Status Quo
मौजूदा वित्तीय व्यवस्था को चुनौती देना

- The **BRICS Cross-Border Payments Initiative** or **BRICS Pay** is the **most concrete step** taken to **reduce dependence on the SWIFT network**, a system used by **over 11,000 banks and financial institutions** globally and **controlled by G-10 central banks**.

  ब्रिक्स क्रॉस-बॉर्डर पेमेंट्स इनिशिएटिव या **ब्रिक्स पे (BRICS Pay)** SWIFT नेटवर्क पर निर्भरता घटाने के लिए उठाया गया **सबसे ठोस कदम** है, जिसे दुनिया भर में **11,000 से अधिक बैंकों और वित्तीय संस्थानों** द्वारा उपयोग किया जाता है और जिस पर **G-10 केंद्रीय बैंकों का नियंत्रण** है।

> - **SWIFT** stands for **Society for Worldwide Interbank Financial Telecommunication**.
> - It is a **global messaging network** used by banks and financial institutions to securely exchange information and instructions about financial transactions.

- BRICS' **motivation** is to **challenge Western financial dominance**, seeking **greater financial sovereignty** and **reduced exposure to U.S. sanctions**.

  ब्रिक्स का उद्देश्य पश्चिमी वित्तीय प्रभुत्व को चुनौती देना है, ताकि उन्हें **अधिक वित्तीय संप्रभुता** और **अमेरिकी प्रतिबंधों से कम जोखिम** मिल सके।

- The inclusion of **Iran in 2024**, a country long facing sanctions, **reinforced this goal**.

  2024 में ईरान को शामिल किया जाना, जो लंबे समय से प्रतिबंधों का सामना कर रहा है, ने इस **उद्देश्य को और मजबूत किया।**

- The **symbolic unveiling of a BRICS banknote** during the **Kazan Summit (2024)** attracted **global attention**, as it **signified intent to move away from dollar dominance**.

2024 के कज़ान शिखर सम्मेलन में **ब्रिक्स बैंकनोट का प्रतीकात्मक अनावरण** ने **वैश्विक ध्यान आकर्षित किया**, क्योंकि इसने **डॉलर प्रभुत्व से दूरी बनाने के इरादे** का संकेत दिया।

- The move provoked **Donald Trump**, the **then U.S. President-elect**, who **threatened to impose 100% tariffs** on BRICS members if they **created a new BRICS currency** or **supported any alternative to the U.S. dollar**.
  इस कदम ने **तत्कालीन अमेरिकी राष्ट्रपति-निर्वाचित डोनाल्ड ट्रम्प** को क्रोधित कर दिया, जिन्होंने चेतावनी दी कि यदि ब्रिक्स देश **नई ब्रिक्स मुद्रा बनाते हैं** या **अमेरिकी डॉलर के किसी विकल्प का समर्थन करते हैं**, तो वे **100% टैरिफ** लगाएंगे।

Building BRICS Pay
BRICS पे का निर्माण

- Amid these developments, the possibility that holds out maximum promise is **BRICS Pay**.
  इन विकासों के बीच, सबसे अधिक संभावनाओं वाला विकल्प **BRICS पे** है।
- This sentiment was reflected in the grouping's **Rio Summit Declaration** earlier in the year wherein they "agreed to continue the discussion on the **BRICS Cross-Border Payments Initiative**, and [acknowledged] the progress made by the **BRICS Payment Task Force (BPTF)** in identifying possible pathways to support the continuation of discussions on the potential for greater **interoperability** of BRICS payment systems".
  यह भावना वर्ष की शुरुआत में समूह की **रियो शिखर सम्मेलन घोषणा** में परिलक्षित हुई, जिसमें उन्होंने "**BRICS क्रॉस-बॉर्डर पेमेंट्स इनिशिएटिव** पर चर्चा जारी रखने और **BRICS पेमेंट टास्क फोर्स (BPTF)** द्वारा BRICS भुगतान प्रणालियों की अधिक **इंटरऑपरेबिलिटी** की संभावनाओं पर चर्चा के लिए संभावित मार्गों की पहचान में की गई प्रगति को स्वीकार किया।"
- Clearly, **BRICS** is in a good position to develop a new **financial network**.
  स्पष्ट रूप से, **BRICS** एक नए **वित्तीय नेटवर्क** को विकसित करने की अच्छी स्थिति में है।
- Besides the strong motivation to **bypass the dollar-dominated system** and avoid **Western sanctions**, these countries have the **necessary infrastructure** to put in place **BRICS Pay**.
  डॉलर-प्रधान प्रणाली को दरकिनार करने और **पश्चिमी प्रतिबंधों** से बचने की मजबूत प्रेरणा के अलावा, इन देशों के पास **BRICS पे** लागू करने के लिए आवश्यक **ढांचा (infrastructure)** भी है।
- The **Russian System for Transfer of Financial Messages (SPFS)**, the **Chinese Cross-Border Interbank Payment System (CIPS)**, India's **Unified Payments Interface (UPI)** and **Brazil's Pix system** are well-equipped to support the proposed network.
  रूस की एसपीएफएस (SPFS) प्रणाली, **चीन की क्रॉस-बॉर्डर इंटरबैंक पेमेंट सिस्टम (CIPS)**, **भारत की यूनिफाइड पेमेंट्स इंटरफेस (UPI)** और **ब्राज़ील की पिक्स (Pix)** प्रणाली इस प्रस्तावित नेटवर्क को समर्थन देने में सक्षम हैं।
- Of course, the **interoperability** of these systems is essential for creating a cohesive **BRICS-led payment infrastructure** that can rival **SWIFT** in scope and reliability, albeit within a more limited geographic and political bloc.
  निश्चित रूप से, इन प्रणालियों की **इंटरऑपरेबिलिटी** एक एकीकृत **BRICS-नेतृत्व वाले भुगतान ढांचे** के निर्माण के लिए आवश्यक है, जो **SWIFT** के दायरे और विश्वसनीयता के मुकाबले आ सके, भले ही वह सीमित भौगोलिक और राजनीतिक क्षेत्र में क्यों न हो।
- A **prototype demonstration** of BRICS Pay was unveiled in **Moscow in October 2024**, marking an important landmark in the project's progress.
  अक्टूबर 2024 में मॉस्को में **BRICS पे का प्रोटोटाइप प्रदर्शन** किया गया, जिसने परियोजना की प्रगति में एक महत्वपूर्ण मील का पत्थर चिन्हित किया।
- Expectedly, **Russia** is most enthusiastic about this project, but the remaining original **BRICS nations** seem to be more **circumspect** because of interests in promoting their own platforms globally.
  स्वाभाविक रूप से, **रूस** इस परियोजना को लेकर सबसे अधिक उत्साहित है, लेकिन शेष मूल **BRICS देश** अपने स्वयं के प्लेटफ़ॉर्म को वैश्विक स्तर पर बढ़ावा देने में रुचि रखने के कारण अधिक **सतर्क (circumspect)** प्रतीत होते हैं।
- **India's UPI** is accepted in **nine countries**, but is yet to find acceptance within **BRICS**.
  भारत की UPI को **नौ देशों** में स्वीकार किया गया है, लेकिन इसे अभी तक **BRICS** के भीतर स्वीकृति नहीं मिली है।

- **China's increasing clout** in the international financial system and the prominence its currency (the **RMB**) has received after it was included in the **Special Drawing Right (SDR)** basket has increased the acceptance of **CIPS**, which currently has participants in **more than 120 countries**, including all **BRICS members except India**.

  अंतरराष्ट्रीय वित्तीय प्रणाली में **चीन का बढ़ता प्रभाव** और उसकी मुद्रा (**RMB**) को **स्पेशल ड्रॉइंग राइट (SDR)** की मुद्रा टोकरी में शामिल किए जाने के बाद मिली प्रमुखता ने **CIPS** की स्वीकार्यता बढ़ा दी है, जो वर्तमान में **120 से अधिक देशों** में उपयोग की जा रही है, जिसमें **भारत को छोड़कर सभी BRICS सदस्य** शामिल हैं।

- **Brazil's Pix system**, introduced in **2020** and operated by the country's **central bank**, is used across several **Latin American countries**.

  ब्राज़ील की पिक्स प्रणाली, जिसे **2020** में शुरू किया गया और देश के **केंद्रीय बैंक** द्वारा संचालित किया जाता है, कई **लैटिन अमेरिकी देशों** में उपयोग की जाती है।

- While navigating through the maze of ambitions of individual countries to promote their own payment systems could dent the progress towards an early realisation of **BRICS Pay**, **Mr. Trump's aggressive intent**, particularly against members of the grouping, could force them into a **political understanding** towards launching their payment system sooner than expected.

  हालांकि, अपने-अपने भुगतान प्रणालियों को बढ़ावा देने की व्यक्तिगत देशों की **महत्वाकांक्षाओं की भूलभुलैया** से गुजरना **BRICS पे** के शीघ्र कार्यान्वयन की दिशा में प्रगति को धीमा कर सकता है, लेकिन **श्री ट्रम्प की आक्रामक मंशा**, विशेष रूप से समूह के सदस्यों के खिलाफ, उन्हें अपेक्षा से पहले अपने भुगतान प्रणाली को शुरू करने के लिए एक **राजनीतिक समझौते** की ओर मजबूर कर सकती है।

What is the TLP challenge for the Pakistan government?

How did the Tehreek-i-Labbaik emerge? Why has the Pakistan government banned the party?

GS II: India's Neighbours

Brighty Ann Sarah Preetha. R

The story so far:

n October 23, for the second time in five years, Pakistan has proscribed the Tehreek-i-Labbaik Pakistan (TLP), a political party supported by the Barelvis in the Punjab province.

Who are the TLP?

The TLP is a far-right Islamist party founded in 2017 by Bareli cleric Khadim Hussain Rizvi, drawing support from Pakistan's Sunni Barelvi community. The party started by organising around the conviction of Mumtaz Qadri. Qadri had assassinated Punjab governor Salman Taseer over opposing blasphemy laws. Qadri's supporters, mostly Barelvis, hailed him as a martyr for defending Islam. The TLP gained prominence demanding his release and leading protests after his execution. The party rose with its hardline defence of blasphemy laws, demand for Sharia-based governance, and opposition to Western influence and minority rights.

In the 2018 elections, the TLP won 2.2 million votes, becoming the fifth-largest party. Later that year, it led nationwide protests against Asia Bibi's (who was arrested on blasphemy charges) acquittal, challenging the verdict and reinforcing its image as a staunch defender of religious causes. In 2020, the TLP led large-scale protests against France over blasphemous caricatures and secured a government deal to expel the French ambassador and boycott French products.

How did the TLP rise to fame?

The TLP's rhetoric on populist issues has centred on blasphemy. Following Mumtaz Qadri's execution, the party mobilised around widespread outrage caused by the execution. Leveraging mosque networks, social media outreach, and street mobilisation, it rapidly consolidated support among Punjab's Barelvi populace, and urban, middle and lower-middle classes in Sindh. Financial backing from Barelvi businessmen and clerics strengthened its organisational capacity. Even though there were efforts earlier as well to politically mobilise Barelvi support, the TLP focussed its mobilisation on emotionally charged issues like blasphemy. This approach resonated strongly among lower-and middle-income Barelvi mosque-goers especially in Punjab, enabling the group to achieve wider grassroots appeal and durable mass mobilisation. Thus, TLP transformed into a dominant politico-religious force capable of pressuring governments.

One of the TLP's greatest strengths lies in grassroot organisation and the ability to sustain large, disruptive protests that paralyse urban centres, pressure state institutions, and amplify its religious agenda. The party's ability to sustain protests for prolonged periods stems from its dedicated cadre, financial support from followers, and exploitation of public sentiment on sensitive religious issues. TLP's street power thus remains a persistent challenge to curbing their impact, compelling state negotiations while amplifying religious extremism.

Moreover, the government's position on the TLP has never been consistent; it has swung between coercion, including arrests and bans, and compromise through policy concessions and lifting restrictions. Neither approach has sustainably weakened the TLP – coercion often escalates violence, while compromise signals state vulnerability.

What next?

For Pakistan, a ban may provide immediate containment but is unlikely to yield long-term results. Sustained enforcement and political commitment are critical to prevent cycles of unrest. Given the TLP's popular and electoral support, an outright ban risks alienating constituents and complicating monitoring. A calibrated, law-based approach rather than reactive suppression is thus necessary.

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THE GIST

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The TLP is a far-right Islamist party founded in 2017 by Bareli cleric Khadim Hussain Rizvi, drawing support from Pakistan's Sunni Barelvi community.

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One of the TLP's greatest strengths lies in grassroot organisation and the ability to sustain large, disruptive protests that paralyse urban centres, pressure state institutions, and amplify its religious agenda

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For Pakistan, a ban may provide immediate containment but is unlikely to yield long-term results.

What is the TLP challenge for the Pakistan government?
पाकिस्तान सरकार के लिए TLP की चुनौती क्या है?

Pakistan bans Tehreek-i-Labbaik Pakistan (TLP)
पाकिस्तान ने तहरीक-ए-लब्बैक पाकिस्तान (TLP) पर प्रतिबंध लगाया

- On **October 23**, for the **second time in five years**, Pakistan proscribed the **Tehreek-i-Labbaik Pakistan (TLP)**, a political party supported by the **Barelvis** in the **Punjab province**.

  23 अक्टूबर को, **पांच वर्षों में दूसरी बार**, पाकिस्तान ने **पंजाब प्रांत** के **बरेलवियों** द्वारा समर्थित एक राजनीतिक पार्टी **तहरीक-ए-लब्बैक पाकिस्तान (TLP)** को **प्रतिबंधित** किया।

Who is the TLP?
TLP कौन है?

- The **TLP** is a **far-right Islamist party** founded in **2017** by **Barelvi cleric Khadim Hussain Rizvi**, drawing support from Pakistan's **Sunni Barelvi community**.
  TLP एक **अति-दक्षिणपंथी इस्लामिक पार्टी** है, जिसकी स्थापना **2017** में **बरेलवी मौलवी खादीम हुसैन रिजवी** ने की थी, जो पाकिस्तान की **सुन्नी बरेलवी समुदाय** से समर्थन प्राप्त करती है।

- The party started by organising around the conviction of **Mumtaz Qadri**, who had **assassinated Punjab Governor Salman Taseer** for opposing **blasphemy laws**.
  पार्टी की शुरुआत **मुमताज़ क़ादरी** की सजा के इर्द-गिर्द हुई, जिसने **धर्मनिंदा कानूनों** का विरोध करने पर **पंजाब के गवर्नर सलमान तासीर की हत्या** कर दी थी।

- Qadri's supporters, mostly **Barelvis**, hailed him as a **martyr** for defending Islam.
  क़ादरी के समर्थक, मुख्यतः **बरेलवी**, उसे **इस्लाम के रक्षक के रूप में शहीद** मानते थे।

- The TLP gained prominence by demanding his release and leading protests after his **execution**, rising with its **hardline defence of blasphemy laws**, demand for **Sharia-based governance**, and **opposition to Western influence and minority rights**.
  TLP ने उनकी **फांसी** के बाद **उनकी रिहाई की मांग** और **विरोध प्रदर्शनों** के माध्यम से प्रसिद्धि प्राप्त की, और यह **धर्मनिंदा कानूनों के कठोर बचाव, शरिया आधारित शासन की मांग**, तथा **पश्चिमी प्रभाव और अल्पसंख्यक अधिकारों के विरोध** के कारण तेजी से उभरी।

- In the **2018 elections**, the TLP won **2.2 million votes**, becoming the **fifth-largest party**.
  2018 के चुनावों में, **TLP** ने **22 लाख वोट** जीते, जिससे यह **पांचवीं सबसे बड़ी पार्टी** बन गई।

- Later that year, it led **nationwide protests** against **Asia Bibi's acquittal** (arrested on blasphemy charges), challenging the verdict and reinforcing its **image as a staunch defender of religious causes**.
  उसी वर्ष बाद में, इसने **एशिया बीबी की रिहाई** (जिसे धर्मनिंदा के आरोप में गिरफ्तार किया गया था) के खिलाफ **देशव्यापी विरोध** किया, जिससे इसकी **धार्मिक मुद्दों की कट्टर रक्षक** के रूप में छवि और मजबूत हुई।

- In **2020**, the TLP led **large-scale protests** against **France** over **blasphemous caricatures**, securing a **government deal** to **expel the French ambassador** and **boycott French products**.
  2020 में, **TLP** ने **फ्रांस** के खिलाफ **धर्मनिंदा कार्टूनों** को लेकर **बड़े पैमाने पर विरोध प्रदर्शन** किए और सरकार से **फ्रांसीसी राजदूत को निष्कासित करने** तथा **फ्रांसीसी उत्पादों का बहिष्कार** करने का समझौता कराया।

How did the TLP rise to fame?
TLP प्रसिद्धि तक कैसे पहुँची?

- The TLP's rhetoric has centred on **blasphemy**, mobilising public outrage after **Mumtaz Qadri's execution**.
  TLP का राजनीतिक विमर्श **धर्मनिंदा** पर केंद्रित रहा, जिसने **मुमताज़ क़ादरी की फांसी** के बाद जनता के **गुस्से** को संगठित किया।

- Using **mosque networks**, **social media**, and **street mobilisation**, it consolidated support among **Punjab's Barelvi populace** and **urban, middle, and lower-middle classes in Sindh**.
  इसने **मस्जिद नेटवर्क, सोशल मीडिया** और **सड़क आंदोलनों** का उपयोग करते हुए **पंजाब के बरेलवी लोगों** और **सिंध के शहरी, मध्यम और निम्न-मध्यम वर्गों** में समर्थन मजबूत किया।

- Financial backing from **Barelvi businessmen and clerics** strengthened its organisation.
  बरेलवी व्यापारियों और मौलवियों से मिले वित्तीय सहयोग ने इसके संगठन को मजबूत किया।

- Focusing on **emotionally charged issues** like **blasphemy**, the party gained **grassroots appeal** and became a **dominant politico-religious force**.
  धर्मनिंदा जैसे भावनात्मक मुद्दों पर ध्यान केंद्रित करने से पार्टी ने **जन-स्तर पर अपील** हासिल की और एक **प्रमुख धार्मिक-राजनीतिक शक्ति** बन गई।

- Its **strength** lies in the ability to sustain **large, disruptive protests**, paralyse **urban centres**, and **pressure the state**.

इसकी **ताकत** इसकी **बड़े, विघटनकारी विरोधों** को बनाए रखने, **शहरी केंद्रों को ठप करने** और **राज्य पर दबाव बनाने** की क्षमता में निहित है।

- The TLP's **dedicated cadre**, **financial support**, and **exploitation of religious sentiment** enable it to sustain long-term mobilisations.
  TLP के **समर्पित कार्यकर्ता, वित्तीय सहयोग,** और **धार्मिक भावनाओं के दोहन** ने इसे लंबे समय तक आंदोलन जारी रखने में सक्षम बनाया है।
- Its **street power** remains a **persistent challenge**, compelling **state negotiations** while **amplifying religious extremism**.
  इसकी **सड़क शक्ति** एक **लगातार चुनौती** बनी हुई है, जो **राज्य को वार्ता के लिए मजबूर करती है** और **धार्मिक कट्टरता को बढ़ाती है।**

Government response and future
सरकारी प्रतिक्रिया और आगे की राह

- The government's position has **swung between coercion and compromise** — including **arrests, bans, and policy concessions**.
  सरकार की स्थिति **दमन और समझौते** के बीच झूलती रही है — जिसमें **गिरफ्तारियां, प्रतिबंध** और **नीतिगत रियायतें** शामिल हैं।
- **Neither approach** has sustainably weakened the TLP; **coercion** often **escalates violence**, while **compromise** signals **state weakness**.
  कोई भी तरीका TLP को स्थायी रूप से कमजोर नहीं कर पाया; **दमन** अक्सर **हिंसा बढ़ाता है**, जबकि **समझौता राज्य की कमजोरी** दिखाता है।
- For Pakistan, a **ban** may offer **temporary control** but **not long-term stability**.
  पाकिस्तान के लिए, **प्रतिबंध अस्थायी नियंत्रण** तो दे सकता है, लेकिन **दीर्घकालिक स्थिरता** नहीं।
- **Sustained enforcement** and **political commitment** are essential to prevent **cycles of unrest**.
  लगातार प्रवर्तन और **राजनीतिक प्रतिबद्धता** अशांति के **चक्रों को रोकने** के लिए आवश्यक हैं।
- Given TLP's **popular and electoral base**, an outright **ban** risks **alienating its constituents** and **complicating monitoring**.
  TLP के **जन और चुनावी आधार** को देखते हुए, सीधा **प्रतिबंध इसके समर्थकों को दूर कर सकता है** और **निगरानी को जटिल बना सकता है।**
- A **calibrated, law-based approach** rather than **reactive suppression** is thus necessary.
  इसलिए, **प्रतिक्रियात्मक दमन** के बजाय एक **संतुलित, कानून आधारित दृष्टिकोण** आवश्यक है।

A nationwide SIR: the need to check double entries in the electoral list

With the credibility of India's electoral processes at stake, the success of the nationwide Special Intensive Revision relies on leveraging technology and administrative efficiency to eliminate duplicate entries and ensure that every vote counts

GS II: Elections

Rajeev Kumar

After the completion of the Special Intensive Revision (SIR) exercise in Bihar, which faced sharp criticisms from political parties and eventually the Supreme Court, the Election Commission of India (EC) has now announced a nationwide SIR, referred to herein as SIR 2.0. This exercise has been purported to be a paperless, people-friendly, and procedurally robust undertaking.

With nearly one billion voter entries, a digital approach is not only inevitable but essential. The electoral roll is no longer a static, State-wise record; it is a dynamic national database whose precision defines the integrity of India's elections. Yet, despite judicial caution, one persistent issue remains unresolved – the double or multiple listing of a single voter.

This problem, affecting countless citizens who shift residences, is not about fraud but rather procedural lapses that erode confidence in the system. A recent case involving a voter (Prashant Kishor), whose name appears in both the Bihar and West Bengal rolls, illustrates the flaw. While the SIR in West Bengal is yet to begin, such duplication defeats the core purpose of the Bihar exercise – ensuring that no voter listed in Bihar remains enrolled elsewhere. It questions the credibility of the SIR process and undermines trust in the voter database.

Governing duplicate entries

Under the Representation of the People (RP) Act, 1950, duplicate entries technically constitute a violation, though such lapses are rarely intentional. Many law-abiding citizens, simply by shifting residence, unintentionally find themselves in breach of the Act through no fault of their own. This underscores the urgent need for a systematic, technology-driven correction mechanism within the EC's digital framework to make SIR 2.0 robust, reliable, and error-free.

The RP Act, 1950, defines the framework for maintaining integrity of electoral rolls and preventing duplication. Under Section 22(b) of the Act, if a voter changes residence within the same constituency, the Electoral Registration Officer (ERO) should transpose the entry to the appropriate part of the roll. When a voter moves to another constituency, Section 23(2) governs inclusion in the new roll. It mandates that the ERO, if satisfied that the applicant is entitled to be registered, shall direct inclusion of the applicant's name in the new roll. The section further requires that if the applicant is already registered in the roll of another constituency, the concerned ERO must inform the officer of that constituency, who shall then strike off the applicant's name from that roll.

To ensure the uniqueness of every voter's registration, Sections 17 and 18 explicitly prohibit multiple registrations – no person may be listed in more than one constituency, or more than once in the same constituency. Violations constitute an offence under electoral law. Duplication often occurs when a voter's name is added at a new place of residence but not simultaneously deleted from the previous one.

In essence, the Act places the primary responsibility on the EROs to ensure that transposition, inclusion, and deletion are carried out accurately, promptly, and simultaneously. This process is crucial in preventing duplicate registration and ensuring the credibility, transparency, and integrity of the national electoral database.

The EC has consolidated the above provisions related to change of residence and correction of voter details in Form 8, used for transposition or correction of entries. A change of address request may fall under four categories: (I) No change in constituency or polling station, (II) No change in constituency but a change in polling station, (III) Change in constituency within the same State, and (IV) Change in both constituency and State. The most frequent cause of double entries arises in Type IV cases, where a voter relocates to another State. The new entry may either retain the same EPIC (Electors Photo Identity Card) number or generate a new one. For instance, Bihar voter (Prashant Kishor)'s double entry involves different EPICs, whereas the author has encountered several cases where both entries shared the same EPIC.

In such situations, accountability for failing to delete the old entry lies squarely with the concerned EROs, whose prompt coordination was essential to prevent duplication in the national electoral roll. Another source of duplication arises when a voter uses Form 6 –meant for new inclusion without declaring the existence of a registration elsewhere. A false declaration constitutes a legal violation, with accountability shared by both the voter and the officials responsible for verification.

Decoding the procedure

The backbone of India's electoral roll is ECINet – a fully digital, nationwide system managed by the Centre for Development of Advanced Computing (C-DAC), Pune. With records of nearly one billion voters, ECINet ranks among the world's largest dynamic databases. Each voter is identified by a unique EPIC number, ensuring a single verifiable entry per individual. ECINet can detect duplicates, flag inconsistencies, and facilitate corrections through authorised verification. It should also be extended to incorporate a voter's update history for complete traceability.

The EC and C-DAC deserve credit for developing robust search and verification APIs that enable efficient detection of duplicates. Ideally, any double entry should automatically trigger an alert for review and deletion upon verification. With such tools available, there is little justification for the persistence of duplicate records. Whether SIR is paper-based or paperless, the real challenge lies in database accuracy and administrative responsiveness. In a digital framework, detection and deletion should be instantaneous.

Ultimately, most cases of duplicate entries stem from the failure to delete older records, whether linked to the same or different EPIC number. This recurring problem reflects not a technological shortcoming but an administrative lapse – a failure of timely coordination and accountability within the electoral machinery.

The way forward

SIR 2.0 must not degenerate into another bureaucratic ritual. India cannot afford another exercise mired in procedural inertia. The gaps are administrative, not technological. ECINet already holds the potential and should be further enhanced through seamless integration with Aadhaar, the only credible pan-India database for independent verification.

Before SIR 2.0 begins, electoral data must be cleaned, duplicates flagged, and deleted. With proper use of technology, this can become a trust revolution – one where transparency, verification, and integrity are built into the system. The focus must shift decisively to software-led validation, digital audit trails, and real-time corrections. The ECINet should function as a reliable public utility – intuitive, glitch-free, and responsive. A real-time dispute resolution mechanism is needed to replace long queues and unanswered complaints.

With a transparent, self-correcting feedback system in place, future SIRs will be unnecessary and electoral rolls will stay perpetually accurate, updated, and verifiable. Only then can India move from 'verification by ritual' to 'verification by design'.

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A nationwide SIR: the need to check double entries in the electoral list
राष्ट्रव्यापी SIR: निर्वाचन सूची में दोहरी प्रविष्टियों की जांच की आवश्यकता

Special Intensive Revision (SIR) 2.0 in India
भारत में विशेष गहन पुनरीक्षण (SIR) 2.0

- After the completion of the **Special Intensive Revision (SIR)** exercise in **Bihar**, which faced **sharp criticisms** from **political parties** and eventually the **Supreme Court**, the **Election Commission of India (EC)** has now announced a **nationwide SIR**, referred to herein as **SIR 2.0**.
  बिहार में **विशेष गहन पुनरीक्षण (SIR)** कार्य के पूरा होने के बाद, जिसे **राजनीतिक पार्टियों** और अंततः **सुप्रीम कोर्ट** से कड़ी आलोचनाएँ मिलीं, **भारत निर्वाचन आयोग (EC)** ने अब **देशव्यापी SIR**, जिसे यहां **SIR 2.0** कहा गया है, की घोषणा की है।

- This exercise is purported to be **paperless, people-friendly, and procedurally robust**.
  यह अभ्यास कथित तौर पर **कागज़ रहित, लोगों के अनुकूल और प्रक्रियात्मक रूप से मजबूत** होने का दावा करता है।

- With nearly **one billion voter entries**, a **digital approach** is not only **inevitable** but **essential**.
  लगभग **एक बिलियन मतदाता प्रविष्टियों** के साथ, **डिजिटल दृष्टिकोण** न केवल **अनिवार्य** है बल्कि **आवश्यक** भी है।

- The **electoral roll** is now a **dynamic national database** whose **precision defines the integrity of India's elections**.
  चुनावी सूची अब एक **गतिशील राष्ट्रीय डेटाबेस** है, जिसकी **सटीकता भारत के चुनावों की सत्यनिष्ठा** तय करती है।

- Despite **judicial caution**, one persistent issue remains unresolved — the **double or multiple listing** of a single voter.
  न्यायिक सतर्कता के बावजूद, एक लगातार मुद्दा अनसुलझा है — एक **मतदाता का डबल या कई बार सूचीबद्ध होना**।

- This problem affects citizens who **shift residences**, and is due to **procedural lapses**, not fraud.
  यह समस्या उन नागरिकों को प्रभावित करती है जो **अपना निवास स्थान बदलते हैं**, और यह **धोखाधड़ी नहीं** बल्कि **प्रक्रियात्मक लापरवाही** के कारण होती है।

- A recent case involves voter **Prashant Kishor**, whose name appears in both **Bihar** and **West Bengal** rolls, illustrating the flaw.
  हाल ही में एक मामले में मतदाता **प्रशांत किशोर** शामिल हैं, जिनका नाम **बिहार** और **पश्चिम बंगाल की सूची** दोनों में दिखाई देता है, जो इस दोष को दर्शाता है।

- While the **SIR in West Bengal** is yet to begin, such **duplication defeats the core purpose** of the Bihar exercise.
  जबकि **पश्चिम बंगाल में SIR** अभी शुरू नहीं हुआ है, ऐसी **दोहराव वाली प्रविष्टियाँ** बिहार अभ्यास के **मुख्य उद्देश्य को नष्ट कर देती हैं**।

- It **questions the credibility** of the SIR process and **undermines trust** in the voter database.
  यह SIR प्रक्रिया की **साख पर सवाल उठाता है** और मतदाता डेटाबेस में **विश्वास को कमजोर करता है**।

Governing Duplicate Entries
डुप्लिकेट प्रविष्टियों का प्रबंधन

- Under the **Representation of the People (RP) Act, 1950**, **duplicate entries** technically constitute a **violation**, though rarely intentional.
  Representation of the People (RP) Act, 1950 के तहत, **डुप्लिकेट प्रविष्टियाँ** तकनीकी रूप से **उल्लंघन** मानी जाती हैं, हालांकि यह शायद ही कभी जानबूझकर होता है।

- Citizens who **shift residence** may unintentionally breach the Act.
  जो नागरिक **अपना निवास स्थान बदलते हैं**, वे **अकस्मात अधिनियम का उल्लंघन कर सकते हैं**।

- This underscores the **urgent need** for a **systematic, technology-driven correction mechanism** within EC's **digital framework** to make **SIR 2.0 robust, reliable, and error-free**.
  यह EC के **डिजिटल ढांचे** में एक **संगठित, तकनीक-संचालित सुधार प्रणाली** की **तत्काल आवश्यकता** को रेखांकित करता है, जिससे **SIR 2.0 मजबूत, भरोसेमंद और त्रुटि-मुक्त** बने।

- **RP Act, 1950** defines the framework for maintaining **integrity of electoral rolls** and preventing **duplication**.
  RP Act, 1950 चुनावी सूचियों की सत्यनिष्ठा बनाए रखने और **डुप्लिकेशन रोकने** का ढांचा निर्धारित करता है।

- **Section 22(b)**: If a voter **changes residence within the same constituency**, the **Electoral Registration Officer (ERO)** should **transpose the entry**.
  Section 22(b): यदि कोई मतदाता **एक ही निर्वाचन क्षेत्र के भीतर निवास स्थान बदलता है**, तो **Electoral Registration Officer (ERO)** को **प्रविष्टि स्थानांतरण** करना चाहिए।

- **Section 23(2)**: For a **change in constituency**, the ERO must ensure the **applicant's name is included in the new roll** and **deleted from the old roll**.

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Contact Number : 9971932488
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Section 23(2): निर्वाचन क्षेत्र बदलने पर, ERO को यह सुनिश्चित करना चाहिए कि **आवेदक का नाम नई सूची में शामिल हो** और **पुरानी सूची से हटा दिया जाए।**

- **Sections 17 and 18** explicitly prohibit **multiple registrations** — a person may not be listed in more than **one constituency**, or more than **once in the same constituency**.
  Sections 17 और 18 स्पष्ट रूप से **कई पंजीकरणों** को रोकते हैं — किसी व्यक्ति को **एक से अधिक निर्वाचन क्षेत्रों** या **एक ही निर्वाचन क्षेत्र में एक से अधिक बार** सूचीबद्ध नहीं किया जा सकता।

- Duplication often occurs when a voter's name is **added at a new residence** but not **deleted from the previous one**.
  डुप्लिकेशन अक्सर तब होता है जब किसी मतदाता का नाम **नए निवास स्थान पर जोड़ दिया जाता है**, लेकिन **पिछले स्थान से नहीं हटाया जाता।**

- Primary responsibility lies with **EROs** to ensure **transposition, inclusion, and deletion** are **accurate, prompt, and simultaneous**.
  मुख्य जिम्मेदारी **EROs** पर होती है कि **स्थानांतरण, शामिल करना और हटाना सटीक, समय पर और एक साथ** किया जाए।

- EC has consolidated provisions for **change of residence** and **correction of voter details** in **Form 8**, used for **transposition or correction**.
  EC ने **Form 8** में **निवास स्थान बदलने** और **मतदाता विवरण सुधारने** के प्रावधानों को एकीकृत किया है, जिसका उपयोग **स्थानांतरण या सुधार** के लिए किया जाता है।

- Change of address requests fall under four categories:
  पते बदलने के अनुरोध चार श्रेणियों में आते हैं:
  - Type I: **No change in constituency or polling station**
    प्रकार I: निर्वाचन क्षेत्र या मतदान केंद्र में कोई बदलाव नहीं
  - Type II: **No change in constituency but change in polling station**
    प्रकार II: निर्वाचन क्षेत्र में कोई बदलाव नहीं लेकिन मतदान केंद्र बदल गया
  - Type III: **Change in constituency within the same State**
    प्रकार III: एक ही राज्य के भीतर निर्वाचन क्षेत्र में बदलाव
  - Type IV: **Change in both constituency and State**
    प्रकार IV: निर्वाचन क्षेत्र और राज्य दोनों में बदलाव

- Most frequent cause of **double entries** arises in **Type IV cases**, where a voter relocates to **another State**.
  डबल प्रविष्टियों का सबसे आम कारण **प्रकार IV** मामलों में होता है, जहां मतदाता **किसी अन्य राज्य में** स्थानांतरित होता है।

- New entry may retain the **same EPIC number** or generate a **new one**.
  नई प्रविष्टि **एक ही EPIC नंबर** रख सकती है या **नया नंबर** उत्पन्न कर सकती है।

- Example: Bihar voter **Prashant Kishor**'s double entry involves **different EPICs**; some cases share the **same EPIC**.
  उदाहरण: बिहार के मतदाता **प्रशांत किशोर** की डबल प्रविष्टि में **विभिन्न EPICs** शामिल हैं; कुछ मामलों में **एक ही EPIC** साझा किया गया है।

- Accountability for failing to **delete old entries** lies with the EROs, whose **coordination is essential**.
  पुरानी प्रविष्टि न हटाने की जिम्मेदारी संबंधित **EROs** पर है, जिनका **समन्वय आवश्यक** है।

- Another source of duplication arises when a voter uses **Form 6** for **new inclusion** without declaring **existing registration**.
  डुप्लिकेशन का एक और स्रोत तब उत्पन्न होता है जब मतदाता **Form 6** का उपयोग **नई शामिल करने** के लिए करता है और **मौजूदा पंजीकरण** घोषित नहीं करता।

- A **false declaration** constitutes a **legal violation**, with accountability shared by **voters and officials** responsible for verification.
  एक **झूठा घोषणा कानूनी उल्लंघन** मानी जाती है, जिसकी जिम्मेदारी **मतदाता और सत्यापन के लिए जिम्मेदार अधिकारियों** दोनों पर साझा होती है।

Decoding the Procedure
प्रक्रिया का विश्लेषण

- The backbone of India's **electoral roll** is **ECINet** — a fully digital, nationwide system managed by the **Centre for Development of Advanced Computing (C-DAC), Pune**.

भारत की **चुनावी सूची** की रीढ़ ECINet है — एक पूरी तरह से डिजिटल, देशव्यापी प्रणाली जिसे **Centre for Development of Advanced Computing (C-DAC), पुणे** द्वारा संचालित किया जाता है।

- With records of nearly **one billion voters**, **ECINet** ranks among the world's **largest dynamic databases**.
  लगभग **एक बिलियन मतदाता रिकॉर्ड्स** के साथ, ECINet दुनिया के **सबसे बड़े गतिशील डेटाबेस** में शामिल है।

- Each voter is identified by a unique **EPIC number**, ensuring a **single verifiable entry per individual**.
  प्रत्येक मतदाता को **अद्वितीय EPIC नंबर** द्वारा पहचाना जाता है, जो प्रत्येक व्यक्ति के लिए **एकल सत्यापनीय प्रविष्टि** सुनिश्चित करता है

- **ECINet** can **detect duplicates**, **flag inconsistencies**, and facilitate **corrections** through **authorised verification**.
  ECINet **डुप्लिकेट्स** का पता लगा सकता है, **असंगतियों** को चिन्हित कर सकता है, और **प्राधिकृत सत्यापन** के माध्यम से **सुधार** की सुविधा प्रदान करता है।

- It should also be extended to incorporate a voter's **update history** for complete **traceability**.
  इसे एक मतदाता का **अपडेट इतिहास** शामिल करने के लिए भी बढ़ाया जाना चाहिए ताकि **पूर्ण ट्रेसबिलिटी** सुनिश्चित हो सके।

- The **EC and C-DAC** deserve credit for developing robust **search and verification APIs** that enable efficient detection of duplicates.
  EC और C-DAC को मजबूत **सर्च और सत्यापन APIs** विकसित करने के लिए श्रेय दिया जाता है, जो डुप्लिकेट्स की प्रभावी पहचान को सक्षम बनाती हैं।

- Ideally, any **double entry** should automatically trigger an **alert** for **review and deletion** upon verification.
  आदर्श रूप से, किसी भी **डबल प्रविष्टि** को सत्यापन पर **समीक्षा और हटाने** के लिए **स्वचालित अलर्ट** ट्रिगर करना चाहिए।

- With such tools available, there is little justification for the persistence of **duplicate records**.
  ऐसे उपकरण उपलब्ध होने के बावजूद, **डुप्लिकेट रिकॉर्ड्स** के बने रहने का कोई ठोस औचित्य नहीं है।

- Whether SIR is **paper-based or paperless**, the real challenge lies in **database accuracy** and **administrative responsiveness**.
  चाहे SIR **कागज़ आधारित या कागज़ रहित** हो, असली चुनौती **डेटाबेस की सटीकता** और **प्रशासनिक प्रतिक्रियाशीलता** में है

- In a **digital framework**, **detection and deletion** should be **instantaneous**.
  डिजिटल ढांचे में, **पता लगाना और हटाना** तत्काल होना चाहिए।

- Ultimately, most cases of **duplicate entries** stem from the **failure to delete older records**, whether linked to the same or different **EPIC number**.
  अंततः, अधिकांश **डुप्लिकेट प्रविष्टियों** के मामले **पुरानी प्रविष्टियों को हटाने में विफलता** के कारण होते हैं, चाहे वे समान या अलग **EPIC नंबर** से जुड़े हों।

- This recurring problem reflects not a **technological shortcoming** but an **administrative lapse** — a failure of **timely coordination and accountability** within the electoral machinery.
  यह बार-बार आने वाली समस्या **तकनीकी कमी** नहीं बल्कि **प्रशासनिक चूक** को दर्शाती है — चुनावी प्रणाली में **समय पर समन्वय और जवाबदेही** में विफलता।

The Way Forward
आगे का रास्ता

- **SIR 2.0** must not degenerate into another **bureaucratic ritual**.
  SIR 2.0 को किसी अन्य **राजपत्रित रस्म** में परिवर्तित नहीं होना चाहिए।

- India cannot afford another exercise mired in **procedural inertia**.
  भारत किसी अन्य अभ्यास को **प्रक्रियात्मक जड़ता** में फंसा नहीं सकता।

- The gaps are **administrative, not technological**.
  अंतर **प्रशासनिक हैं, तकनीकी नहीं**।

- **ECINet** already holds the **potential** and should be further enhanced through seamless integration with **Aadhaar**, the only credible **pan-India database** for independent verification.
  ECINet में पहले से ही **संभावना** है और इसे स्वतंत्र सत्यापन के लिए **एकमात्र विश्वसनीय पैन-इंडिया डेटाबेस, Aadhaar,** के साथ **सुगम एकीकरण** के माध्यम से और बेहतर किया जाना चाहिए।

- Before **SIR 2.0** begins, electoral data must be **cleaned, duplicates flagged, and deleted**.
  SIR 2.0 शुरू होने से पहले, चुनावी डेटा को **साफ, डुप्लिकेट चिन्हित और हटाया जाना चाहिए।**

- With proper use of technology, this can become a **trust revolution** — where **transparency, verification, and integrity** are built into the system.
  तकनीक के सही उपयोग के साथ, यह एक **विश्वास क्रांति** बन सकती है — जहां **पारदर्शिता, सत्यापन और अखंडता** प्रणाली में अंतर्निहित हो।

- The focus must shift decisively to **software-led validation, digital audit trails, and real-time corrections**.
  ध्यान को निर्णायक रूप से **सॉफ्टवेयर-संचालित सत्यापन, डिजिटल ऑडिट ट्रेल्स और रियल-टाइम सुधारों** की ओर स्थानांतरित करना चाहिए।

- **ECINet** should function as a **reliable public utility** — intuitive, **glitch-free**, and **responsive**.
  ECINet को एक **विश्वसनीय सार्वजनिक उपयोगिता** के रूप में कार्य करना चाहिए — सहज, **त्रुटि-मुक्त** और **प्रतिक्रियाशील।**

- A **real-time dispute resolution mechanism** is needed to replace **long queues and unanswered complaints**.
  लंबी कतारों और अनुत्तरित शिकायतों की जगह लेने के लिए **रीयल-टाइम विवाद समाधान तंत्र** की आवश्यकता है।

- With a **transparent, self-correcting feedback system**, future SIRs will be unnecessary and electoral rolls will stay **perpetually accurate, updated, and verifiable**.
  एक **पारदर्शी, स्व-सुधारात्मक फीडबैक प्रणाली** के साथ, भविष्य के SIRs अनावश्यक होंगे और चुनावी सूचियाँ हमेशा **सटीक, अद्यतन और सत्यापनीय** रहेंगी।

- Only then can India move from **'verification by ritual'** to **'verification by design'**.
  केवल तभी भारत **'रस्म द्वारा सत्यापन'** से **'डिजाइन द्वारा सत्यापन'** की ओर बढ़ सकता है।

GS Paper III: Economy, S&T, Environment, DM, &IS	
TOPICS COVERED	**05_11_2025**
1. Researchers discover new species of Pilia genus of jumping spider in Chikkamagaluru चिक्कमगलुरु में पिलिया जीनस की नई प्रजाति की जम्पिंग मकड़ी की खोज	
2. After visit to Vantara, global wildlife panel recommends India pause animal imports वंतारा की यात्रा के बाद वैश्विक वन्यजीव पैनल ने भारत को पशु आयात रोकने की सिफारिश की	
3. Gamma-ray bursts from black hole 'morsels' could expose quantum gravity ब्लैक होल 'मॉर्सल्स' से आने वाले गामा-रे विस्फोट क्वांटम ग्रेविटी को उजागर कर सकते हैं	
4. Why are India's Communications Satellites so Heavy भारत के संचार उपग्रह इतने भारी क्यों होते हैं	

5.	India's forests hold the future भारत के वन भविष्य को संभाले हुए हैं
6.	Employees using artificial intelligence at work in India भारत में कार्यस्थल पर कृत्रिम बुद्धिमत्ता का उपयोग करने वाले कर्मचारी
7.	India can be a beacon of how AI can be used for social good: OpenAI official भारत इस बात का उदाहरण बन सकता है कि कृत्रिम बुद्धिमत्ता (AI) का उपयोग सामाजिक कल्याण के लिए कैसे किया जा सकता है: ओपनएआई अधिकारी

GS III: Environment: Pollution

A diver retrieves a cage containing mussels used as bioindicators to monitor microplastic and chemical pollution during a mission in the Saronic Gulf, Greece, on September 8. A bioindicator is an organism that senses and responds to its environmental conditions, based on which scientists can infer them indirectly. REUTERS

A diver retrieves a cage containing mussels used as bioindicators to monitor microplastic and chemical pollution during a mission in the Saronic Gulf, Greece, on September 8. A bioindicator is an organism that senses and respondsto its environmental conditions, based on which scientists can infer them indirectly.

Researchers discover new species of *Pilia genus* of jumping spider in Chikkamagaluru

GS III: Environment: Ecology

SHIVAMOGGA

A team of researchers exploring biodiversity in the Western Ghats discovered a new species of spider belonging to *Pilia*, a genus of jumping spiders, at Madhugundi village in Mudigere taluk of Chikkamagaluru. Interestingly, the researchers named it "*Pilia malenadu*", to give credit to the place it was found.

The discovery, which has been published in *Zootaxa*, an international journal, is significant because the last time a species of spiders belonging to *Pilia genus*, was discovered about 123 years ago (1902) in Kerala. There are multiple species in one genus.

The new species of spider "*Pilia malenadu*" that was discovered in Madhugundi, Chikkamagaluru. AJITH PADIYAR

Further, the researchers, for the first time, have found both male and female spiders of the species.

Ajit Padiyar, working as a naturalist at a resort at Madhugundi, spotted the 24 individuals of the spider species, which were later named "*Pilia malenadu*". They included 17 males, three females and four juveniles.

Padiyar had found saffron reedtail, a rare species of damselfly endemic to the Western Ghats at the same place last year.

Healthy ecosystem

"The discovery of such rare species at Madhugundi village at the foothills of Western Ghats, indicates the healthy ecosystem at the place and stress the need to retain it," Mr. Padiyar said.

The researchers noticed that these spiders were found only two plant species – *Memecylon umbellatum* and *Memecylon malabaricum*.

"Our study shows the spiders are habitat specific. If we fail to conserve the habitat, there are chances of losing the species," said Mr. Padiyar.

Researchers discover new species of Pilia genus of jumping spider in Chikkamagaluru

चिक्कमगलुरु में पिलिया जीनस की नई प्रजाति की जम्पिंग मकड़ी की खोज

- A team of researchers exploring biodiversity in the Western Ghats discovered a new species of spider belonging to **Pilia**, a genus of jumping spiders, at **Madhugundi village** in **Mudigere taluk** of **Chikkamagaluru**.
  पश्चिमी घाट में जैव विविधता की खोज कर रही शोधकर्ताओं की एक टीम ने **चिक्कमगलुरु जिले के मुदिगेरे तालुक के माधुगुंडी गांव में पिलिया (Pilia)** नामक जीनस की जम्पिंग मकड़ी की एक नई प्रजाति की खोज की।

- Interestingly, the researchers named it **"Pilia malenadu"**, to give credit to the place it was found.
  रोचक बात यह है कि शोधकर्ताओं ने इसका नाम **"पिलिया मालेनाडु (Pilia malenadu)"** रखा ताकि उस स्थान को श्रेय दिया जा सके जहां यह पाई गई।

- The discovery, which has been published in **Zootaxa**, an international journal, is significant because the last time a species of spiders belonging to **Pilia genus**, was discovered was about **123 years ago (1902)** in **Kerala**.
  यह खोज, जो अंतरराष्ट्रीय जर्नल **जूटाक्सा (Zootaxa)** में प्रकाशित हुई है, महत्वपूर्ण है क्योंकि **पिलिया जीनस** की किसी मकड़ी की प्रजाति की खोज पिछली बार **लगभग 123 वर्ष पहले (1902)** केरल में हुई थी।

- There are multiple species in one genus.
  एक जीनस में कई प्रजातियाँ होती हैं।

- Further, the researchers, for the first time, have found both **male and female spiders** of the species.
  आगे, शोधकर्ताओं ने पहली बार इस प्रजाति की **नर और मादा मकड़ियाँ** दोनों पाई हैं।

- **Ajit Padiyar**, working as a **naturalist** at a resort at **Madhugundi**, spotted the 24 individuals of the spider species, which were later named **"Pilia malenadu"**.
  अजीत पाडियार, जो **माधुगुंडी के एक रिज़ॉर्ट में नेचुरलिस्ट** के रूप में कार्यरत हैं, ने इस मकड़ी की प्रजाति के **24 नमूने** देखे, जिन्हें बाद में **"पिलिया मालेनाडु"** नाम दिया गया।

- They included **17 males, three females and four juveniles**.
  इनमें **17 नर, 3 मादाएँ और 4 किशोर (juveniles)** शामिल थे।

- **Padiyar** had found **saffron reedtail**, a rare species endemic to the **Western Ghats**, at the same place last year.
  पाडियार ने पिछले वर्ष इसी स्थान पर **सैफ़्रन रीडटेल**, जो **पश्चिमी घाट की एक दुर्लभ डैमसेलफ्लाई प्रजाति** है, की खोज की थी।

- **Healthy ecosystem**
  स्वस्थ पारिस्थितिकी तंत्र

- "The discovery of such rare species at **Madhugundi village** at the foothills of **Western Ghats**, indicates the **healthy ecosystem** at the place and stress the need to retain it," **Mr. Padiyar** said.
  "**पश्चिमी घाट की तलहटी में स्थित माधुगुंडी गांव** में ऐसी दुर्लभ प्रजातियों की खोज इस स्थान के **स्वस्थ पारिस्थितिकी तंत्र (healthy ecosystem)** को दर्शाती है और इसे बनाए रखने की आवश्यकता पर बल देती है," **श्री पाडियार** ने कहा।

- The researchers noticed that these spiders were found only on **two plant species — Memecylon umbellatum and Memecylon malabaricum**.
  शोधकर्ताओं ने देखा कि ये मकड़ियाँ केवल **दो पौधों की प्रजातियों — मेमेसीलॉन अम्बेलाटम (Memecylon umbellatum)** और **मेमेसीलॉन मालाबारिकम (Memecylon malabaricum)** पर ही पाई गईं।

- "Our study shows the spiders are **habitat specific**. If we fail to **conserve the habitat**, there are chances of losing the species," said **Mr. Padiyar**.
  "हमारे अध्ययन से पता चलता है कि ये मकड़ियाँ **विशिष्ट आवास (habitat specific)** वाली हैं। यदि हम **आवास को संरक्षित (conserve)** करने में विफल रहे, तो इस प्रजाति के विलुप्त होने की संभावना है," **श्री पाडियार** ने कहा।

After visit to Vantara, global wildlife panel recommends India pause animal imports

GS III: Environment: Conservation

Jacob Koshy
NEW DELHI

A committee of CITES, the globe's most influential agreement on wildlife conservation, whose strictures on the cross-border movement of protected animal species inform national wildlife laws, has recommended that India's wildlife authorities pause the issue of permits that allow endangered animals to be imported by zoos, and wildlife rescue and rehabilitation centres.

This, CITES says, should be in place until India comprehensively reviews its practices and ensures that "due diligence is exercised systematically and consistently", and animal trade is not carried out in "violation of the Convention".

The recommendations

Panel 'could not find evidence' that the facility brought in animals for commercial purposes

are part of a report prepared by a CITES-designated committee after a visit to the Greens Zoological Rescue and Rehabilitation Centre (GZRRC) in Jamnagar, a part of the Vantara animal rescue and rehabilitation centre affiliated to the Reliance Foundation. The Radha Krishna Temple Elephant Welfare Trust (RKTEWT) is also a part of Vantara, and while primarily focused on elephant welfare, also has permissions to manage other imported species of fauna.

It also noted that it "could not find evidence" that the facility brought in animals for commercial purposes nor evidence that animals being imported to India lacked import, export, and re-export CITES permits.

Due diligence
The committee's report, uploaded on October 31 on the CITES website, noted that "...several imports [by GZRRC and RKTEWT] still raise questions regarding the origin of the specimens... the use of source and purpose-of-transaction codes, and the exercise of due diligence by India".

The Hindu reached out with detailed questionnaires to Vantara, and the Union Ministry of Environment for comment but had not heard back till the time of going to press.

After visit to Vantara, global wildlife panel recommends India pause animal imports
वंतारा की यात्रा के बाद वैश्विक वन्यजीव पैनल ने भारत को पशु आयात रोकने की सिफारिश की

- A committee of **CITES**, the globe's most influential agreement on **wildlife conservation**, whose strictures on the cross-border movement of protected animal species inform national wildlife laws, has recommended that **India's wildlife authorities pause the issue of permits** that allow endangered animals to be imported by **zoos**, and **wildlife rescue and rehabilitation centres**.

- **CITES**, जो **वैश्विक वन्यजीव संरक्षण (wildlife conservation)** पर सबसे प्रभावशाली समझौता है और जिसके नियम **संरक्षित पशु प्रजातियों के सीमा-पार आवागमन (cross-border movement)** को नियंत्रित करते हैं, की एक समिति ने सिफारिश की है कि **भारत के वन्यजीव प्राधिकरण (India's wildlife authorities) चिड़ियाघरों (zoos)** और **वन्यजीव बचाव व पुनर्वास केंद्रों (wildlife rescue and rehabilitation centres)** को **लुप्तप्राय जानवरों के आयात (import)** के लिए परमिट जारी करना **अस्थायी रूप से रोक दें (pause the issue of permits)**।

- This, **CITES** says, should be in place until **India comprehensively reviews its practices** and ensures that **"due diligence is exercised systematically and consistently"**, and **animal trade is not carried out in violation of the Convention**.
  CITES का कहना है कि यह प्रतिबंध तब तक जारी रहना चाहिए जब तक **भारत अपनी प्रक्रियाओं की व्यापक समीक्षा (comprehensively reviews its practices)** नहीं कर लेता और यह सुनिश्चित नहीं करता कि **"उचित सावधानी (due diligence)"** व्यवस्थित और सुसंगत रूप से अपनाई जा रही है, तथा **पशु व्यापार (animal trade)** अंतरराष्ट्रीय समझौते **(Convention)** का उल्लंघन नहीं कर रहा है।

- The recommendations are part of a **report prepared by a CITES-designated committee** after a visit to the **Greens Zoological Rescue and Rehabilitation Centre (GZRRC)** in **Jamnagar**, a part of the **Vantara animal rescue and rehabilitation centre** affiliated to the **Reliance Foundation**.
  ये सिफारिशें **CITES द्वारा नामित समिति (CITES-designated committee)** द्वारा तैयार की गई एक **रिपोर्ट का हिस्सा** हैं, जो **जामनगर (Jamnagar)** स्थित **ग्रीन्स जूलॉजिकल रेस्क्यू एंड रिहैबिलिटेशन सेंटर (GZRRC)** की यात्रा के बाद बनाई गई थी, जो **रिलायंस फाउंडेशन (Reliance Foundation)** से संबद्ध **वंतारा पशु बचाव और पुनर्वास केंद्र (Vantara animal rescue and rehabilitation centre)** का हिस्सा है।

- The **Radha Krishna Temple Elephant Welfare Trust (RKTEWT)** is also a part of **Vantara**, and while primarily focused on **elephant welfare**, also has permissions to manage other **imported species of fauna**.
  राधा कृष्ण मंदिर एलिफेंट वेलफेयर ट्रस्ट (RKTEWT) भी **वंतारा (Vantara)** का हिस्सा है, जो मुख्य रूप से **हाथियों के कल्याण (elephant welfare)** पर केंद्रित है, लेकिन इसे अन्य **आयातित जीव प्रजातियों (imported species of fauna)** के प्रबंधन की भी अनुमति है।

- It also noted that it **"could not find evidence"** that the facility brought in animals for **commercial purposes** nor evidence that animals being imported to India lacked import, export, and re-export CITES permits.
  रिपोर्ट में यह भी उल्लेख किया गया कि समिति को ऐसा कोई **"सबूत नहीं मिला (could not find evidence)"** कि इस केंद्र ने **व्यावसायिक उद्देश्यों (commercial purposes)** के लिए जानवरों का आयात किया या यह कि भारत में लाए गए जानवरों के पास **आयात, निर्यात और पुनः निर्यात (import, export, and re-export)** के लिए आवश्यक **CITES परमिट** नहीं थे।

Due diligence
उचित सावधानी (Due diligence)

- The committee's report, **uploaded on October 31** on the **CITES website**, noted that "...several imports [by GZRRC and RKTEWT] still raise questions regarding the **origin of the specimens**, the use of **source and purpose-of-transaction codes**, and the exercise of **due diligence by India**".
  समिति की रिपोर्ट, जो **31 अक्टूबर को CITES वेबसाइट पर अपलोड (uploaded on October 31)** की गई थी, में उल्लेख किया गया कि "...**GZRRC और RKTEWT द्वारा किए गए कई आयात (imports)** अब भी **नमूनों की उत्पत्ति (origin of specimens)**, **स्रोत और लेन-देन के उद्देश्य कोड (source and purpose-of-transaction codes)**, और **भारत द्वारा उचित सावधानी (due diligence)** अपनाने को लेकर सवाल उठाते हैं।"

- **The Hindu** reached out with detailed questionnaires to **Vantara**, and the **Union Ministry of Environment** for comment but had not heard back till the time of going to press.
  द हिंदू (The Hindu) ने **वंतारा (Vantara)** और **केंद्रीय पर्यावरण मंत्रालय (Union Ministry of**

Environment) को इस संबंध में विस्तृत प्रश्नावली भेजी, लेकिन **प्रेस में जाने तक कोई जवाब प्राप्त नहीं हुआ।**

Gamma-ray bursts from black hole 'morsels' could expose quantum gravity

Gravity and quantum physics interact at the event horizons of black holes, though physicists don't understand all the details; a new theoretical study has proposed that very small black holes, dubbed black hole 'morsels,' possibly formed in violent cosmic collisions could serve as more unique probes of quantum gravity

GS III: S&T

Qudsia Gani

We know gravity as the force that keeps our feet on the ground and makes things fall 'down.' It also keeps the moon orbiting the earth and holds the planets around the Sun. However, when we zoom into the tiniest scales of reality, far smaller than atoms, the rules of physics begin to change. The strange laws of quantum mechanics take over, where particles can appear and vanish, or even exist in a superposition of two places at once. Nothing is completely certain in this quantum realm.

The other forces of nature, such as electromagnetism, have been successfully described in the quantum framework. Gravity has however resisted such treatment. Its strength is extraordinarily low compared to the other forces, making the quantum effects of gravity hard to probe. The mathematics required to merge quantum mechanics with gravity is also notoriously difficult. Physicists also lack the technology and experiments to fully explore it.

Natural laboratory
This is why a black hole is often cited as the best natural laboratory to study quantum gravity. These are regions of spacetime where gravity is so intense that nothing, not even light, can escape. Yet black holes are not entirely 'black'. In the 1970s, the English theoretical physicist Stephen Hawking showed that they should leak a faint amount of energy, now called Hawking radiation, due to quantum effects near the event horizon, the boundary beyond which nothing can escape.

This prediction suggested that gravity and quantum physics do interact, though physicists don't yet understand all the details. In this context, a new theoretical study proposes that very small black holes – dubbed "black hole morsels" – possibly formed in violent cosmic collisions could serve as more unique probes of quantum gravity.

"Black hole morsels are hypothetical micro-black holes, far smaller than their parent black holes – roughly comparable in mass to asteroids – and therefore much hotter," Giacomo Cacciapaglia, a researcher at the French National Centre for Scientific Research (CNRS) and co-author of the new study, said in a statement.

The paper was accepted for publication in *Nuclear Physics B* in August.

Radiate strongly
Black hole morsels are remnants of black hole mergers and could provide unprecedented insights into the quantum nature of space and time. Remarkably, the researchers have argued that signals from these morsels could, in favourable conditions, already be detectable with present-day gamma-ray telescopes.

"Our work shows that if these objects form, their radiation might already be observable using current gamma-ray telescopes," Francesco Sannino, a theoretical physicist at the University of Southern Denmark and another coauthor, said.

The idea rests on the question: how does gravity behave at the quantum level?

Like their parent black holes, the morsels would also emit Hawking radiation, but at much higher temperatures. Large astrophysical black holes are far too cold for their radiation to be detectable. Small black holes, however, would radiate strongly, in principle producing high-energy photons and neutrinos.

Because of their elevated temperatures, the morsels would also evaporate quickly, releasing bursts of high-energy particles. The calculations suggest that these bursts would form a distinct, detectable signature that could manifest as a delayed emission of gamma rays after a black hole merger event.

Delayed burst
Although morsels have not yet been observed, the researchers have contended that their formation is plausible. In the extreme conditions of a black hole merger, the collision might 'pinch off' small, dense pockets of spacetime sufficient to form morsels. These would then evaporate through Hawking radiation, with lifetimes ranging from milliseconds to years depending on their mass.

> We showed that if black hole morsels are created during mergers, they would produce a burst of high-energy gamma rays, with the delay time related to their mass
>
> **GIACOMO CACCIAPAGLIA**
> FRENCH NATIONAL CENTRE FOR SCIENTIFIC RESEARCH

Detecting Hawking radiation from morsels would be more than an observational novelty. Hawking radiation carries imprints of the underlying quantum structure of spacetime. Its spectrum could, in principle, reveal deviations from existing theories of subatomic particles and point to 'new physics.' While such interpretations remain speculative, the morsel scenario offers a rare and testable window into quantum gravity – an area that usually lies far beyond experimental reach.

Because particle accelerators like the Large Hadron Collider in Europe can't probe such extreme energy scales, these natural laboratories could act as "cosmic accelerators," giving physicists access to energy regimes otherwise inaccessible on the earth.

The predicted observational signature would be a delayed burst of high-energy gamma rays radiating more isotropically – i.e., equally in all directions – than traditional gamma-ray bursts, which are usually concentrated into beams. Several existing instruments are well suited to search for such bursts. They include the High Energy Stereoscopic System (HESS) in Namibia, the High-Altitude Water Cherenkov Observatory (HAWC) in Mexico, the Large High Altitude Air Shower Observatory (LHAASO) in China, and the Fermi Gamma-ray Space Telescope in orbit around the earth.

True nature of space
Going beyond theory, the researchers also analysed data collected by HESS, when it followed up on the large black hole merger events, to place upper limits on the masses that could have been pinched off as morsels. They called this their first attempt to test their hypothesis observationally.

"We showed that if black hole morsels are created during mergers, they would produce a burst of high-energy gamma rays, with the delay time related to their mass," Dr. Cacciapaglia said. "Our analysis shows this new type of multi-messenger signal could give us direct experimental access to quantum gravitational phenomena."

Despite the excitement, many uncertainties remain. The precise conditions in which morsels might form are not yet known, and full simulations of the merger dynamics are lacking. The authors also said they plan to refine their models and explore more realistic mass scenarios, while astronomers continue to search through current and future datasets.

Ultimately, if morsels exist, they could help answer some of the deepest questions in physics about the true nature of space, time, and gravity.

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Detectors such as HAWC in Mexico would be well-suited to search for the predicted observational signature of radiation from black hole morsels. JORDANAGOODMAN (CC BY-SA)

THE GIST
▼
Gravity has resisted description in the quantum framework. Its strength is extraordinarily low, making the quantum effects of gravity hard to probe. The mathematics required is also notoriously difficult

▼
A black hole is cited as the best natural laboratory to study quantum gravity. Yet black holes are not entirely 'black.' Stephen Hawking showed that they should leak a faint amount of energy, now called Hawking radiation, due to quantum effects near the event horizon

▼
To verify this radiation, researchers are exploring black hole morsels. This is important because Hawking radiation carries imprints of the underlying quantum structure of spacetime. It could reveal deviations from existing theories of subatomic particles and point to 'new physics'

Gamma-ray bursts from black hole 'morsels' could expose quantum gravity

ब्लैक होल 'मॉर्सल्स' से आने वाले गामा-रे विस्फोट क्वांटम ग्रेविटी को उजागर कर सकते हैं

Gravity and Quantum Mechanics
गुरुत्वाकर्षण और क्वांटम यांत्रिकी

- We know **gravity** as the force that keeps our feet on the ground and makes things fall 'down.'
  हम **गुरुत्वाकर्षण** को उस बल के रूप में जानते हैं जो हमारे पैरों को जमीन पर रखता है और चीजों को नीचे गिराता है।

- It also keeps the **moon orbiting the Earth** and holds the **planets around the Sun**.
  यह **चंद्रमा को पृथ्वी की परिक्रमा** में और **ग्रहों को सूर्य की परिक्रमा** में बनाए रखता है।

- However, when we zoom into the tiniest scales of reality, far smaller than atoms, the **rules of physics begin to change**.
  हालांकि जब हम वास्तविकता के सबसे छोटे स्तरों, यानी परमाणुओं से भी छोटे स्तरों को देखते हैं, तो **भौतिकी के नियम बदलने लगते हैं**।

- The strange laws of **quantum mechanics** take over, where **particles can appear and vanish**, or even **exist in two places at once**.
  क्वांटम यांत्रिकी के अजीब नियम हावी हो जाते हैं, जहाँ **कण प्रकट और गायब** हो सकते हैं, या एक ही समय में **दो स्थानों पर मौजूद** हो सकते हैं।

- Nothing is completely certain in this **quantum realm**.
  इस **क्वांटम जगत** में कुछ भी पूरी तरह निश्चित नहीं है।

- The other forces of nature, such as **electromagnetism**, have been successfully described in the **quantum framework**.
  प्रकृति की अन्य शक्तियों, जैसे **विद्युतचुंबकत्व**, को **क्वांटम ढाँचे** में सफलतापूर्वक समझाया गया है।

- **Gravity**, however, has resisted such treatment.
  लेकिन **गुरुत्वाकर्षण** ने ऐसे व्यवहार का प्रतिरोध किया है।

- Its **strength is extraordinarily low** compared to the other forces, making the **quantum effects of gravity** hard to probe.
  इसकी **शक्ति अन्य बलों की तुलना में असाधारण रूप से कम** है, जिससे **गुरुत्वाकर्षण के क्वांटम प्रभावों** का अध्ययन कठिन हो जाता है।

- The mathematics required to merge **quantum mechanics with gravity** is also **notoriously difficult**.
  क्वांटम यांत्रिकी को गुरुत्वाकर्षण के साथ मिलाने के लिए आवश्यक गणित भी **कुख्यात रूप से कठिन** है।

- Physicists also lack the **technology and experiments** to fully explore it.
  भौतिकविदों के पास इसे पूरी तरह से समझने के लिए आवश्यक **प्रौद्योगिकी और प्रयोगात्मक साधन** भी नहीं हैं।

Natural laboratory
प्राकृतिक प्रयोगशाला

- This is why a **black hole** is often cited as the **best natural laboratory** to study **quantum gravity**.
  यही कारण है कि **ब्लैक होल** को अक्सर **क्वांटम गुरुत्वाकर्षण** का अध्ययन करने के लिए **सर्वश्रेष्ठ प्राकृतिक प्रयोगशाला** कहा जाता है।

- These are **regions of spacetime** where **gravity is so intense** that nothing, not even **light**, can escape.
  ये **स्पेसटाइम के क्षेत्र** हैं जहाँ **गुरुत्वाकर्षण इतना प्रबल** होता है कि **प्रकाश तक बाहर नहीं निकल सकता**।

- Yet black holes are not entirely 'black'.
  फिर भी ब्लैक होल पूरी तरह 'काले' नहीं होते।

- In the **1970s**, the English theoretical physicist **Stephen Hawking** showed that they should **leak a faint amount of energy**, now called **Hawking radiation**, due to **quantum effects near the event horizon**.
  1970 के दशक में अंग्रेज़ सैद्धांतिक भौतिकशास्त्री **स्टीफन हॉकिंग** ने दिखाया कि **इवेंट होराइजन** के पास **क्वांटम प्रभावों** के कारण ब्लैक होल्स से **हल्की ऊर्जा का उत्सर्जन** होना चाहिए, जिसे अब **हॉकिंग विकिरण** कहा जाता है।

- This prediction suggested that **gravity and quantum physics** do interact, though physicists don't yet understand all the details.
  इस भविष्यवाणी से संकेत मिला कि **गुरुत्वाकर्षण और क्वांटम भौतिकी** एक-दूसरे के साथ क्रिया करती हैं, हालांकि भौतिकविद अभी सभी विवरण नहीं समझ पाए हैं।

- In this context, a new theoretical study proposes that very small **black holes — dubbed "black hole morsels" —** possibly formed in **violent cosmic collisions** could serve as more unique probes of **quantum gravity**.
  इस संदर्भ में, एक नए सैद्धांतिक अध्ययन ने प्रस्तावित किया है कि बहुत छोटे **ब्लैक होल — जिन्हें "ब्लैक होल मॉर्सल्स" कहा गया है —** संभवतः **हिंसक ब्रह्मांडीय टक्करों** में बने होंगे और **क्वांटम गुरुत्वाकर्षण** की जाँच के लिए अद्वितीय साधन हो सकते हैं।

- "Black hole morsels are **hypothetical micro-black holes**, far smaller than their parent black holes — roughly comparable in **mass to asteroids** — and therefore **much hotter**," said **Giacomo Cacciapaglia**, a researcher at the **French National Centre for Scientific Research (CNRS)**.
  "**ब्लैक होल मॉर्सल्स काल्पनिक सूक्ष्म ब्लैक होल्स** हैं, जो अपने मूल ब्लैक होल्स से बहुत छोटे होते हैं — जिनका **द्रव्यमान क्षुद्रग्रहों के बराबर** होता है — और इसलिए वे **काफी अधिक गर्म** होते हैं," ऐसा कहा **जियाकोमो काचियापालिया** ने, जो **फ्रेंच नेशनल सेंटर फॉर साइंटिफिक रिसर्च (CNRS)** में शोधकर्ता हैं।

- The paper was accepted for publication in **Nuclear Physics B** in **August**.
  इस शोध पत्र को **अगस्त** में **न्यूक्लियर फिजिक्स बी** पत्रिका में प्रकाशन के लिए स्वीकार किया गया।

Radiate strongly
प्रबल रूप से विकीर्ण होना

- **Black hole morsels** are remnants of **black hole mergers** and could provide **unprecedented insights** into the **quantum nature of space and time**.
  ब्लैक होल मॉर्सल्स, **ब्लैक होल के विलय** के अवशेष हैं और वे **अंतरिक्ष और समय के क्वांटम स्वरूप** के बारे में **अभूतपूर्व अंतर्दृष्टि** प्रदान कर सकते हैं।

- Remarkably, the researchers have argued that **signals from these morsels** could, in favourable conditions, already be **detectable with present-day gamma-ray telescopes**.
  उल्लेखनीय रूप से, शोधकर्ताओं का तर्क है कि **इन मॉर्सल्स से उत्पन्न संकेत** अनुकूल परिस्थितियों में **वर्तमान गामा-रे दूरबीनों** से पहले ही **पता लगाए जा सकते हैं**।

- "Our work shows that if these objects form, their **radiation might already be observable** using **current gamma-ray telescopes**," said **Francesco Sannino**, a theoretical physicist at the **University of Southern Denmark**.
  "हमारा कार्य दिखाता है कि यदि ये वस्तुएं बनती हैं, तो उनका **विकिरण वर्तमान गामा-रे दूरबीनों** की मदद से पहले ही **देखा जा सकता है**," ऐसा कहा **फ्रांसेस्को सानिनो** ने, जो **साउदर्न डेनमार्क विश्वविद्यालय** में सैद्धांतिक भौतिकशास्त्री हैं।

- The idea rests on the question: **how does gravity behave at the quantum level?**
  यह विचार इस प्रश्न पर आधारित है: **क्वांटम स्तर पर गुरुत्वाकर्षण कैसे व्यवहार करता है?**

- Like their parent black holes, the morsels would also emit **Hawking radiation**, but at **much higher temperatures**.
  अपने मूल ब्लैक होल्स की तरह, मॉर्सल्स भी **हॉकिंग विकिरण** उत्सर्जित करेंगे, लेकिन **काफी अधिक तापमान** पर।

- Large astrophysical black holes are **too cold** for their radiation to be detectable.
  बड़े खगोलीय ब्लैक होल्स इतने **ठंडे** होते हैं कि उनका विकिरण **पता नहीं लगाया जा सकता**।

- Small black holes, however, would **radiate strongly**, in principle producing **observable high-energy photons and neutrinos**.
  जबकि छोटे ब्लैक होल्स **प्रबल रूप से विकीर्ण** होंगे, जिससे **उच्च-ऊर्जा फोटॉनों और न्यूट्रिनो** का उत्सर्जन **देखा जा सकने योग्य** होगा।

- Because of their **elevated temperatures**, the morsels would also **evaporate quickly**, releasing **bursts of high-energy particles**.
  अपने **उच्च तापमान** के कारण, मॉर्सल्स भी **शीघ्रता से वाष्पित** हो जाएंगे और **उच्च-ऊर्जा कणों के विस्फोट** छोड़ेंगे।

- The calculations suggest that these **bursts would form a distinct, detectable signature**, that could manifest as a **delayed emission of gamma rays** after a black hole merger event.

गणनाएँ बताती हैं कि ये **विस्फोट एक विशिष्ट, पहचाने जाने योग्य संकेत** बनाएंगे, जो **ब्लैक होल विलय** के बाद **गामा किरणों के विलंबित उत्सर्जन** के रूप में प्रकट हो सकते हैं।

Delayed burst
विलंबित विस्फोट

- Although **morsels** have not yet been observed, the researchers have contended that their formation is **plausible**.
  हालांकि **मॉर्सल्स** को अभी तक देखा नहीं गया है, शोधकर्ताओं का कहना है कि उनका बनना **संभावित** है।
- In the extreme conditions of a **black hole merger**, the collision might **'pinch off'** small, dense pockets of **spacetime** sufficient to form morsels.
  ब्लैक होल के विलय की अत्यधिक परिस्थितियों में, यह टकराव छोटे, घने **स्पेसटाइम के भागों** को अलग कर सकता है जो मॉर्सल्स के निर्माण के लिए पर्याप्त हों।
- These would then **evaporate through Hawking radiation**, with lifetimes ranging from **milliseconds to years** depending on their **mass**.
  ये फिर **हॉकिंग विकिरण** के माध्यम से **वाष्पित** हो जाएंगे, जिनकी आयु उनके **द्रव्यमान** के आधार पर **मिलीसेकंड से वर्षों** तक हो सकती है।
- Detecting **Hawking radiation** from morsels would be more than an **observational novelty**.
  मॉर्सल्स से **हॉकिंग विकिरण** का पता लगाना केवल एक **अवलोकनात्मक नवीनता** से अधिक होगा।
- **Hawking radiation** carries imprints of the underlying **quantum structure of spacetime**.
  हॉकिंग विकिरण में **स्पेसटाइम की क्वांटम संरचना** के निशान होते हैं।
- Its **spectrum** could, in principle, reveal **deviations from existing theories** of subatomic particles and point to **'new physics'**.
  इसका **स्पेक्ट्रम** मौजूदा **उपपरमाण्विक कण सिद्धांतों से विचलन** और **नई भौतिकी** की ओर संकेत कर सकता है।
- While such interpretations remain **speculative**, the **morsel scenario** offers a rare and testable window into **quantum gravity** — an area that usually lies far beyond experimental reach.
  यद्यपि ऐसी **व्याख्याएं अनुमानात्मक हैं**, **मॉर्सल परिदृश्य क्वांटम गुरुत्वाकर्षण** के अध्ययन के लिए एक **दुर्लभ और परीक्षण योग्य अवसर** प्रदान करता है, जो सामान्यतः प्रयोगात्मक पहुंच से बहुत दूर है।
- Because particle accelerators like the **Large Hadron Collider (LHC)** can't probe such **extreme energy scales**, these **natural laboratories** could act as **cosmic accelerators**, giving physicists access to energy regimes otherwise inaccessible on Earth.
  क्योंकि **लार्ज हैड्रॉन कोलाइडर (LHC)** जैसे **कण त्वरक** इतनी **अत्यधिक ऊर्जा सीमाओं** का परीक्षण नहीं कर सकते, इसलिए ये **प्राकृतिक प्रयोगशालाएं कॉस्मिक त्वरक** के रूप में कार्य कर सकती हैं, जो वैज्ञानिकों को पृथ्वी पर **अप्राप्य ऊर्जा स्तरों** तक पहुंच प्रदान करती हैं।
- The predicted **observational signature** would be a **delayed burst of high-energy gamma rays** radiating more **isotropically** — that is, equally in all directions — than traditional gamma-ray bursts.
  अनुमानित **अवलोकन संकेत** एक **उच्च-ऊर्जा गामा किरणों का विलंबित विस्फोट** होगा जो पारंपरिक गामा किरण विस्फोटों की तुलना में अधिक **सर्वदिशीय (isotropic)** रूप से विकीर्ण होगा।
- Several existing instruments are well suited to search for such bursts, including **HESS (Namibia)**, **HAWC (Mexico)**, **LHAASO (China)**, and the **Fermi Gamma-ray Space Telescope**.
  कई मौजूदा उपकरण जैसे **HESS (नामीबिया)**, **HAWC (मेक्सिको)**, **LHAASO (चीन)** और **फर्मी गामा-रे स्पेस टेलीस्कोप** ऐसे विस्फोटों की खोज के लिए उपयुक्त हैं।

True nature of space
अंतरिक्ष का वास्तविक स्वभाव

- Going beyond theory, the researchers also analysed data collected by **HESS**, when it followed up on large **black hole merger events**, to place **upper limits on the masses** that could have been pinched off as morsels.
  सिद्धांत से आगे बढ़ते हुए, शोधकर्ताओं ने **HESS** द्वारा एकत्र किए गए डेटा का विश्लेषण किया जब उसने बड़े

ब्लैक होल विलय घटनाओं का अध्ययन किया, ताकि उन द्रव्यमानों की उच्चतम सीमा तय की जा सके जिन्हें मॉर्सल्स के रूप में अलग किया जा सकता था।

- They called this their **first attempt** to test their hypothesis observationally.
  उन्होंने इसे अपने परिकल्पना की **पहली प्रायोगिक जांच** कहा।

- "We showed that if **black hole morsels** are created during mergers, they would produce a burst of **high-energy gamma rays**, with the **delay time related to their mass**," said Dr. Cacciapaglia.
  "हमने दिखाया कि यदि **ब्लैक होल मॉर्सल्स** का निर्माण विलय के दौरान होता है, तो वे **उच्च-ऊर्जा गामा किरणों का विस्फोट** उत्पन्न करेंगे, जिसकी **विलंब अवधि उनके द्रव्यमान से संबंधित** होगी," डॉ. काचियापालिया ने कहा।

- "Our analysis shows this new type of **multi-messenger signal** could give us direct experimental access to **quantum gravitational phenomena**."
  "हमारे विश्लेषण से पता चलता है कि इस नए प्रकार का **मल्टी-मैसेंजर सिग्नल** हमें **क्वांटम गुरुत्वीय घटनाओं** तक प्रत्यक्ष प्रयोगात्मक पहुंच दे सकता है।"

- Despite the excitement, many **uncertainties** remain.
  उत्साह के बावजूद, कई **अनिश्चितताएँ** बनी हुई हैं।

- The precise conditions in which morsels might form are **not yet known**, and **full simulations** of the merger dynamics are lacking.
  जिन सटीक परिस्थितियों में मॉर्सल्स बन सकते हैं, वे अभी **ज्ञात नहीं हैं**, और विलय की **पूर्ण सिमुलेशन** भी अनुपस्थित हैं।

- The authors also said they plan to **refine their models** and explore more **realistic mass scenarios**, while astronomers continue to **search through current and future datasets**.
  लेखकों ने यह भी कहा कि वे अपने **मॉडलों को परिष्कृत** करने और अधिक **यथार्थवादी द्रव्यमान परिदृश्यों** की खोज करने की योजना बना रहे हैं, जबकि खगोलविद **वर्तमान और भविष्य के डेटा सेट्स** की जांच जारी रखेंगे।

- Ultimately, if **morsels** exist, they could help answer some of the **deepest questions** in physics about the **true nature of space, time, and gravity**.
  अंततः यदि **मॉर्सल्स** वास्तव में मौजूद हैं, तो वे **अंतरिक्ष, समय और गुरुत्वाकर्षण के वास्तविक स्वभाव** से जुड़े **भौतिकी के सबसे गहरे प्रश्नों** के उत्तर देने में मदद कर सकते हैं।

Indian satellites: laden with features

GS III: S&T

Q: Why are India's communications satellites so heavy

A: On November 2, ISRO launched the GSAT-7R satellite for the Indian Navy. The satellite's launch mass was 4,410 kg — rendering the launch the heaviest of a communications satellite from Indian soil.

India's communications satellites are heavy because they combine wide coverage, high power, and long service life in one spacecraft.

To serve the entire country and nearby seas, the communications payload needs to support many channels across multiple frequencies, including the C, Ku, and Ka bands. These in turn require many large deployable antennas, high-power amplifiers, waveguides, filters, switches, and either many analog transponders or flexible digital processors.

The antennas and pointing mechanisms also need to hold tight alignment in space, so their structure and thermal control systems add more mass. The satellites' high throughput demands several kilowatt of electrical power available for

The GSAT-30 communications satellite. ISRO

12-15 years, so satellites carry large solar arrays, large batteries, and power-conditioning units, plus structures to shield them in space.

The spacecrafts' long life demands redundancy, ergo they're fit with duplicate computers, radios, and power units.

Getting to the geostationary orbit (GTO) adds more mass in propellant. The GTO is a highly elliptical orbit; once a rocket places a satellite in this orbit, the satellite will use its own propulsion to move into a geostationary (like GSAT-7R) or geosynchronous orbit.

The satellite also needs to perform station-keeping manoeuvres and manage its momentum. The chemical propulsion systems still common on many Indian satellites thus need significant quantities of fuel for these tasks.

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Why are India's Communications Satellites so Heavy
भारत के संचार उपग्रह इतने भारी क्यों होते हैं

- On **November 2**, **ISRO** launched the **GSAT-7R satellite** for the **Indian Navy**. The satellite's launch mass was **4,410 kg** — rendering the launch the **heaviest of a communications satellite** from Indian soil.

  2 **नवंबर** को भारतीय अंतरिक्ष अनुसंधान संगठन ने भारतीय नौसेना के लिए जीसैट-7आर उपग्रह प्रक्षेपित किया। उपग्रह का प्रक्षेपण द्रव्यमान **4,410 किलोग्राम** था — जिससे यह भारत की धरती से प्रक्षेपित किया गया अब तक का **सबसे भारी संचार उपग्रह** बन गया।

- India's communications satellites are heavy because they combine **wide coverage, high power, and long service life** in one spacecraft.

  भारत के संचार उपग्रह भारी होते हैं क्योंकि वे एक ही अंतरिक्ष यान में **विस्तृत कवरेज, उच्च शक्ति** और **लंबी सेवा अवधि** को संयोजित करते हैं।

- To serve the entire country and nearby seas, the communications payload needs to support many channels across multiple frequencies, including the **C, Ku, and Ka bands**.
  पूरे देश और आस-पास के समुद्रों की सेवा के लिए, संचार पेलोड को कई आवृत्तियों पर अनेक चैनलों का समर्थन करना होता है, जिनमें सी, केयू और केए बैंड शामिल हैं।

- These in turn require many large **deployable antennas, high-power amplifiers, waveguides, filters, switches**, and either many **analog transponders or flexible digital processors**.
  इसके लिए कई बड़े तैनात किए जाने योग्य एंटेना, उच्च शक्ति प्रवर्धक, तरंग मार्गदर्शक, फिल्टर, स्विच, और कई एनालॉग ट्रांसपोंडर या लचीले डिजिटल प्रोसेसरों की आवश्यकता होती है।

- The antennas and pointing mechanisms also need to hold tight alignment in space, so their **structure and thermal control systems** add more mass.
  एंटेना और दिशा निर्धारण तंत्र को अंतरिक्ष में सटीक संरेखण बनाए रखना पड़ता है, इसलिए उनकी संरचना और तापीय नियंत्रण प्रणाली अतिरिक्त भार जोड़ती हैं।

- The satellites' **high throughput** demands several kilowatt of electrical power available for **12–15 years**, so satellites carry **large solar arrays, large batteries, and power-conditioning units**, plus structures to shield them in space.
  उपग्रहों की उच्च संचार क्षमता के लिए **12–15 वर्षों** तक कई किलोवाट विद्युत शक्ति की आवश्यकता होती है, इसलिए उनमें बड़े सौर पैनल, बड़ी बैटरियां, और ऊर्जा नियंत्रण इकाइयां होती हैं, साथ ही उन्हें अंतरिक्ष में बचाने के लिए विशेष ढांचा भी होता है।

- The spacecrafts' **long life demands redundancy**, ergo they're fit with **duplicate computers, radios, and power units**.
  अंतरिक्ष यान की लंबी आयु के लिए अतिरिक्त सुरक्षा प्रणाली की आवश्यकता होती है, इसलिए इनमें दोहरे कंप्यूटर, रेडियो और ऊर्जा इकाइयां लगाई जाती हैं।

- Getting to the **geostationary orbit (GTO)** adds more mass in **propellant**. The GTO is a **highly elliptical orbit**; once a rocket places a satellite in this orbit, the satellite will use its own propulsion to move into a **geostationary or geosynchronous orbit**.
  भू-स्थिर कक्षा तक पहुंचने के लिए अतिरिक्त ईंधन की आवश्यकता होती है। यह एक अत्यधिक दीर्घवृत्ताकार कक्षा होती है; एक बार जब रॉकेट उपग्रह को इस कक्षा में स्थापित कर देता है, तो उपग्रह अपने स्वयं के प्रणोदन से भू-स्थिर या भू-सिंक्रोनस कक्षा में चला जाता है।

- The satellite also needs to perform **station-keeping manoeuvres** and manage its **momentum**. The **chemical propulsion systems** still common on many Indian satellites thus need **significant quantities of fuel** for these tasks.
  उपग्रह को अपनी स्थिति बनाए रखने और अपने गति-बल को नियंत्रित करने के लिए अनेक क्रियाएँ करनी होती हैं। इस कारण, कई भारतीय उपग्रहों में प्रयुक्त रासायनिक प्रणोदन प्रणाली को इन कार्यों के लिए पर्याप्त मात्रा में ईंधन की आवश्यकता होती है।

India's forests hold the future

As India navigates the twin imperatives of economic growth and sustainable development, forests are once again finding their rightful place in the national climate conversation. The recent release of the revised blueprint for the Green India Mission (GIM) puts restoration at the forefront. The ambition is bold: restore 25 million hectares of degraded forest and non-forest land by 2030.

This isn't just about greening land for its own sake. It directly ties to India's climate pledge to create an additional carbon sink of up to 3.39 billion tonnes of CO_2 equivalent by the end of this decade. The big question is not just how much land India restores, but how it restores it.

Quality question

A 2025 study by IIT Kharagpur, in collaboration with IIT Bombay and BITS Pilani, reported a 12% decline in photosynthetic efficiency of dense forests across India. The main cause? Rising temperatures and drying soil. Put simply, while India may be growing its forest cover, these forests are becoming less effective at absorbing carbon. This discovery challenges the old assumption that "more trees equal more carbon sinks" and instead highlights the need for restoration that enhances ecological resilience, not just canopy cover.

The revised GIM is not starting from scratch. Between 2015 and 2021, the Mission supported afforestation across 11.22 million hectares, with ₹575 crore disbursed to 18 states. During this period, forest and tree cover increased from 24.16% in 2015 to 25.17% in 2023.

The new blueprint expands the lens, focusing on biodiversity-rich landscapes like the Aravalli Hills, Western Ghats, mangroves, and Himalayan catchments. It also aims to link efforts with other government programmes such as the National Agroforestry Policy, watershed initiatives, and the Compensatory Afforestation Fund

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India's afforestation story has long wrestled with three gaps - community participation, ecological design, and financing

Management and Planning Authority (CAMPA). But as with most ambitious missions, the challenge lies in turning policy into practice.

India's afforestation story has long wrestled with three stubborn gaps: community participation, ecological design, and financing.

Nearly 200 million Indians depend on forests for daily survival. The Forest Rights Act (2006) legally empowers them to manage and protect their landscapes. Yet in practice, many plantation drives bypass these communities, ignoring their claims and consent. This erodes trust and undermines both legality and social legitimacy. However, there are bright spots. In Odisha, Joint Forest Management Committees are integrated into planning and revenue-sharing. In Chhattisgarh, forest departments are experimenting with biodiversity-sensitive plantations and reviving barren cattle shelters by planting mahua trees, aligning ecology with tribal livelihoods.

Going native

For decades, afforestation has leaned heavily on monocultures of eucalyptus or acacia, which are fast-growing, yes, but ecologically damaging. They deplete groundwater, crowd out native biodiversity, and leave forests vulnerable to climate stress. The revised GIM promises a shift toward native, site-specific species, which is encouraging.

However, the real test is whether local forest departments possess the necessary expertise and capacity to deliver. India already has training institutes in Uttarakhand, Coimbatore, and Byrnihat that could be harnessed to equip frontline staff with ecological know-how. Some States are leading the way. Tamil Nadu, for instance, has nearly doubled its mangrove cover in just three years, offering both carbon storage and coastal protection.

Perhaps the biggest bottleneck is financing. The CAMPA fund now holds a staggering ₹95,000 crore,

yet utilisation is inconsistent. Delhi, for example, spent only 23% of its approved funds between 2019 and 2024. GIM itself has had to make do with modest allocations, relying heavily on CAMPA.

The way forward isn't just about more money, but about smarter use of it. The good news is that some States are experimenting with new financing tools. Himachal Pradesh has launched a biochar programme to generate carbon credits while reducing fire risks. Uttar Pradesh has planted over 39 crore saplings this year and is exploring how to connect village councils to carbon markets.

Building blocks

Despite the hurdles, India has the building blocks: strong legal frameworks, sizeable financing pools, institutional capacity, and promising local models. What's needed is alignment.

Communities must be empowered to lead. Forest departments need the skills and incentives to prioritise ecological restoration over plantation targets. The central government can enhance accountability by implementing public dashboards that track survival rates, species mix, fund utilisation, and community participation. CAMPA could broaden its scope to cover participatory planning and adaptive management, rather than sticking narrowly to planting. Civil society and research institutions also have a role, from providing technical expertise to designing participatory monitoring tools. This shared effort is what can transform GIM from a government programme into a national movement.

As India looks toward Viksit Bharat 2047, forests are not merely an environmental concern; they are the future capital. The path to restoring 25 million hectares is not easy, but if pursued with rigour, inclusion, and foresight, it could reshape how the world thinks about restoration.

India's forests hold the future
भारत के वन भविष्य को संभाले हुए हैं

Green India Mission (GIM) and Forest Restoration
ग्रीन इंडिया मिशन (GIM) और वन पुनर्स्थापन

- As **India** navigates the twin imperatives of **economic growth** and **sustainable development**, **forests** are once again finding their rightful place in the **national climate**

conversation.

जब **भारत आर्थिक विकास** और **सतत विकास** की दोहरी आवश्यकताओं के बीच आगे बढ़ रहा है, तब **वन** फिर से **राष्ट्रीय जलवायु संवाद** में अपना उचित स्थान पा रहे हैं।

- The recent release of the **revised blueprint** for the **Green India Mission (GIM)** puts **restoration** at the forefront.

  हाल ही में जारी **ग्रीन इंडिया मिशन (GIM)** की संशोधित रूपरेखा ने **पुनर्स्थापन** को प्राथमिकता दी है।

- The ambition is bold: restore **25 million hectares** of degraded **forest** and **non-forest land** by **2030**.

  यह एक महत्वाकांक्षी लक्ष्य है: **2030** तक **2.5 करोड़ हेक्टेयर विकृत वन** और **गैर-वन भूमि** को पुनर्स्थापित करना।

- This isn't just about greening land for its own sake. It directly ties to **India's climate pledge** to create an additional **carbon sink** of up to **3.39 billion tonnes of CO$_2$ equivalent** by the end of this decade.

  यह केवल भूमि को हराभरा करने का लक्ष्य नहीं है। यह सीधे **भारत की जलवायु प्रतिबद्धता** से जुड़ा है, जिसके तहत दशक के अंत तक **3.39 अरब टन CO$_2$ समतुल्य** का अतिरिक्त **कार्बन सिंक** तैयार करना है।

- The big question is not just how much land India restores, but **how it restores it.**

  बड़ा प्रश्न यह नहीं है कि भारत कितनी भूमि पुनर्स्थापित करेगा, बल्कि यह है कि **वह इसे कैसे पुनर्स्थापित करेगा।**

Quality Question
गुणवत्ता का प्रश्न

- A **2025 study** by **IIT Kharagpur**, in collaboration with **IIT Bombay** and **BITS Pilani**, reported a **12% decline** in **photosynthetic efficiency** of dense forests across India.

  IIT खड़गपुर, **IIT बॉम्बे** और **BITS पिलानी** द्वारा **2025 के अध्ययन** में भारत के घने वनों की **प्रकाश संश्लेषण दक्षता** में **12% की गिरावट** दर्ज की गई।

- The main cause? **Rising temperatures** and **drying soil.**

  मुख्य कारण? **बढ़ते तापमान** और **सूखती मिट्टी।**

- Put simply, while India may be **growing its forest cover**, these forests are becoming **less effective** at **absorbing carbon.**

  सरल शब्दों में, जबकि भारत का **वन क्षेत्र बढ़ रहा है**, लेकिन ये वन **कार्बन अवशोषण** में **कम प्रभावी** हो रहे हैं।

- This discovery challenges the old assumption that **"more trees equal more carbon sinks"**, highlighting the need for **ecological resilience**, not just **canopy cover.**

  यह खोज पुराने विचार को चुनौती देती है कि **"अधिक पेड़ = अधिक कार्बन सिंक"**, और यह दिखाती है कि केवल **छत्र आवरण** नहीं, बल्कि **पारिस्थितिकीय लचीलापन** आवश्यक है।

Progress So Far
अब तक की प्रगति

- The revised **GIM** is not starting from scratch. Between **2015 and 2021**, the Mission supported **afforestation** across **11.22 million hectares**, with **₹575 crore** disbursed to **18 states.**

  संशोधित **GIM** शून्य से शुरू नहीं हो रहा है। **2015 से 2021** के बीच मिशन ने **11.22 मिलियन हेक्टेयर** में **वनीकरण** को समर्थन दिया, और **₹575 करोड़ 18 राज्यों** को वितरित किए गए।

- During this period, **forest and tree cover** increased from **24.16% (2015)** to **25.17% (2023)**.

  इस अवधि में **वन और वृक्ष आवरण 2015 में 24.16%** से बढ़कर **2023 में 25.17%** हो गया।

New Focus Areas
नए फोकस क्षेत्र

- The new blueprint expands the lens, focusing on **biodiversity-rich landscapes** like the **Aravalli Hills**, **Western Ghats**, **mangroves**, and **Himalayan catchments.**

  नई रूपरेखा का दायरा बढ़ाया गया है, जिसमें **अरावली पहाड़ियाँ**, **पश्चिमी घाट**, **मैन्ग्रोव क्षेत्र** और **हिमालयी जलग्रहण क्षेत्र** जैसे **जैव विविधता से भरपूर परिदृश्य** शामिल हैं।

- It also aims to link efforts with other programmes such as the **National Agroforestry Policy**, **watershed initiatives**, and **CAMPA (Compensatory Afforestation Fund Management and Planning Authority).**

 इसका उद्देश्य अन्य योजनाओं जैसे **राष्ट्रीय कृषि-वनीकरण नीति, जलागम पहल,** और **CAMPA (क्षतिपूरक वनीकरण कोष प्रबंधन और योजना प्राधिकरण)** से भी जोड़ना है।

- But as with most ambitious missions, the challenge lies in **turning policy into practice.**

 लेकिन अधिकांश महत्वाकांक्षी योजनाओं की तरह, वास्तविक चुनौती **नीति को क्रियान्वयन में बदलने** में है।

Persistent Gaps
लगातार बनी खामियाँ

- India's afforestation story has long struggled with three key gaps — **community participation**, **ecological design**, and **financing.**

 भारत की वनीकरण कहानी लंबे समय से तीन प्रमुख खामियों से जूझ रही है — **सामुदायिक भागीदारी, पारिस्थितिकीय डिज़ाइन,** और **वित्तपोषण।**

- Nearly **200 million Indians** depend on forests for daily survival.

 लगभग **20 करोड़ भारतीय** अपनी **दैनिक आजीविका** के लिए वनों पर निर्भर हैं।

- The **Forest Rights Act (2006)** legally empowers them to manage and protect their landscapes.

 वन अधिकार अधिनियम (2006) उन्हें अपने क्षेत्रों के प्रबंधन और संरक्षण का **कानूनी अधिकार** देता है।

- Yet in practice, many **plantation drives** bypass these communities, ignoring their **claims and consent**, which erodes **trust** and **legitimacy.**

 फिर भी व्यवहार में, कई **रोपण अभियानों** में इन समुदायों की **भागीदारी और सहमति** को अनदेखा किया जाता है, जिससे **विश्वास** और **वैधता** कमजोर होती है।

Bright Spots
सकारात्मक उदाहरण

- In **Odisha**, **Joint Forest Management Committees** are integrated into **planning** and **revenue-sharing.**

 ओडिशा में **संयुक्त वन प्रबंधन समितियाँ योजना निर्माण** और **राजस्व-साझेदारी** में शामिल की गई हैं।

- In **Chhattisgarh**, forest departments are experimenting with **biodiversity-sensitive plantations** and **reviving barren cattle shelters** by planting **mahua trees**, aligning **ecology** with **tribal livelihoods.**

 छत्तीसगढ़ में वन विभाग **जैव विविधता-संवेदनशील वृक्षारोपण** और **महुआ पेड़ लगाकर सूखे पशु आश्रयों के पुनर्जीवन** पर काम कर रहे हैं, जिससे **पर्यावरण** और **आदिवासी आजीविका** को जोड़ा जा सके।

Going Native
स्थानीय प्रजातियों की ओर लौटना

- For decades, **afforestation** has leaned heavily on **monocultures** of **eucalyptus** or **acacia**, which are fast-growing but **ecologically damaging.**

 दशकों से **वनीकरण** मुख्य रूप से **यूकेलिप्टस** या **अकेशिया** जैसी **एकल प्रजातियों (monocultures)** पर निर्भर रहा है, जो तेजी से बढ़ती हैं लेकिन **पारिस्थितिक रूप से हानिकारक** हैं।

- They **deplete groundwater**, **crowd out native biodiversity**, and leave forests **vulnerable to climate stress.**

 ये **भूजल को समाप्त करती हैं**, स्थानीय **जैव विविधता को समाप्त करती हैं**, और वनों को **जलवायु दबावों के प्रति असुरक्षित** बनाती हैं।

- The revised **Green India Mission (GIM)** promises a **shift toward native, site-specific species**, which is encouraging.

 संशोधित **ग्रीन इंडिया मिशन (GIM) स्थानीय और स्थल-विशिष्ट प्रजातियों** की ओर बदलाव का वादा करता है, जो एक **सकारात्मक संकेत** है।

- However, the real test is whether **local forest departments** possess the **expertise and capacity** to deliver.

हालांकि असली परीक्षा यह है कि क्या **स्थानीय वन विभागों** के पास इसे लागू करने की **विशेषज्ञता और क्षमता** है।

- **Training institutes** in **Uttarakhand**, **Coimbatore**, and **Byrnihat** could be used to equip **frontline staff** with **ecological know-how.**
  उत्तराखंड, कोयंबटूर और **बर्नीहाट** में मौजूद **प्रशिक्षण संस्थान** मैदान स्तर के कर्मचारियों को **पारिस्थितिक ज्ञान** देने के लिए उपयोग किए जा सकते हैं।

- Some States are already leading the way. **Tamil Nadu**, for instance, has **nearly doubled its mangrove cover in just three years**, offering both **carbon storage** and **coastal protection.**
  कुछ राज्य पहले से ही अग्रणी भूमिका निभा रहे हैं। उदाहरण के लिए, **तमिलनाडु ने केवल तीन वर्षों में अपने मैन्ग्रोव क्षेत्र को लगभग दोगुना** कर लिया है, जिससे **कार्बन भंडारण** और **तटीय संरक्षण** दोनों को बढ़ावा मिला है।

Financing Challenges
वित्तीय चुनौतियाँ

- Perhaps the biggest bottleneck is **financing.**
  शायद सबसे बड़ी बाधा **वित्तपोषण** है।
- The **CAMPA fund** now holds a staggering **₹95,000 crore**, yet **utilisation** is **inconsistent.**
  CAMPA फंड में वर्तमान में **₹95,000 करोड़** की भारी राशि है, लेकिन इसका **उपयोग असंगत** है।
- **Delhi**, for example, spent only **23%** of its approved funds between **2019 and 2024.**
  उदाहरण के लिए, **दिल्ली** ने **2019 से 2024** के बीच अपने स्वीकृत फंड का केवल **23%** खर्च किया।
- **GIM** itself has had to manage with **modest allocations**, relying heavily on **CAMPA.**
  स्वयं **GIM** को **सीमित आवंटनों** के साथ काम चलाना पड़ा है और यह काफी हद तक **CAMPA** पर निर्भर रहा है।
- The way forward isn't just about **more money**, but about **smarter use of it.**
  आगे का रास्ता केवल **अधिक धन** का नहीं, बल्कि उसके **स्मार्ट उपयोग** का है।
- Some States are experimenting with **new financing tools.**
  कुछ राज्य **नए वित्तीय उपकरणों** के साथ प्रयोग कर रहे हैं।
- **Himachal Pradesh** has launched a **biochar programme** to generate **carbon credits** while reducing **fire risks.**
  हिमाचल प्रदेश ने **आग के जोखिम को कम** करते हुए **कार्बन क्रेडिट उत्पन्न करने** के लिए **बायोचार कार्यक्रम** शुरू किया है।
- **Uttar Pradesh** has planted **over 39 crore saplings** this year and is exploring ways to **connect village councils to carbon markets.**
  उत्तर प्रदेश ने इस वर्ष **39 करोड़ से अधिक पौधे लगाए** हैं और यह **ग्राम पंचायतों को कार्बन बाज़ारों से जोड़ने** के तरीकों की खोज कर रहा है।

Building Blocks
निर्माण की आधारशिलाएँ

- Despite the hurdles, India has the **building blocks** — **strong legal frameworks**, **sizeable financing pools**, **institutional capacity**, and **promising local models.**
  बाधाओं के बावजूद, भारत के पास **मजबूत कानूनी ढाँचे, पर्याप्त वित्तीय संसाधन, संस्थागत क्षमता,** और **स्थानीय मॉडल** जैसे निर्माण के ठोस आधार हैं।
- What's needed is **alignment.**
  आवश्यकता है **समन्वय** की।
- **Communities** must be **empowered to lead.**
  समुदायों को **नेतृत्व करने के लिए सशक्त** किया जाना चाहिए।
- **Forest departments** need **skills and incentives** to prioritise **ecological restoration** over **plantation targets.**
  वन विभागों को **वृक्षारोपण लक्ष्यों** के बजाय **पारिस्थितिक पुनर्स्थापन** को प्राथमिकता देने के लिए **कौशल और प्रोत्साहन** की आवश्यकता है।
- The **central government** can enhance **accountability** by implementing **public dashboards** that track **survival rates**, **species mix**, **fund utilisation**, and **community participation.**

केंद्र सरकार **सार्वजनिक डैशबोर्ड** लागू करके **जवाबदेही** बढ़ा सकती है, जो **जीवित रहने की दर**, **प्रजाति विविधता**, **फंड उपयोग**, और **सामुदायिक भागीदारी** को ट्रैक करें।

- **CAMPA** could broaden its scope to cover **participatory planning** and **adaptive management**, instead of sticking narrowly to **planting.**
  CAMPA अपने दायरे को **भागीदारी आधारित योजना** और **अनुकूलनशील प्रबंधन** तक बढ़ा सकता है, बजाय केवल **रोपण गतिविधियों** पर केंद्रित रहने के।

- **Civil society** and **research institutions** also have a role — from providing **technical expertise** to designing **participatory monitoring tools.**
  नागरिक समाज और **अनुसंधान संस्थान** भी भूमिका निभा सकते हैं — **तकनीकी विशेषज्ञता** प्रदान करने से लेकर **भागीदारी आधारित निगरानी उपकरणों** के डिजाइन तक।

- This **shared effort** can transform **GIM** from a **government programme** into a **national movement.**
  यह **साझा प्रयास** GIM को एक **सरकारी कार्यक्रम** से **राष्ट्रीय आंदोलन** में बदल सकता है।

Forests and the Future
वन और भविष्य

- As India looks toward **Viksit Bharat 2047**, forests are not merely an **environmental concern**; they are **future capital.**
  जब भारत **विकसित भारत 2047** की ओर देख रहा है, तब **वन** केवल **पर्यावरणीय चिंता** नहीं हैं, बल्कि वे **भविष्य की पूँजी** हैं।

- The path to restoring **25 million hectares** is not easy, but if pursued with **rigour**, **inclusion**, and **foresight**, it could **reshape how the world thinks about restoration.**
  2.5 करोड़ हेक्टेयर भूमि को पुनर्स्थापित करने का मार्ग आसान नहीं है, लेकिन यदि इसे **कठोरता**, **समावेशिता**, और **दूरदर्शिता** के साथ अपनाया जाए, तो यह **दुनिया के पुनर्स्थापन दृष्टिकोण को बदल सकता है।**

Employees using artificial intelligence at work in India

GS III: S&T

92 In per cent. India has the highest artificial intelligence adoption rate in the Asia Pacific region, with 92% of employees using the technology at work, according to a report by the Boston Consulting Group. The regional average stands at 78%, ahead of the global average of 72%. PTI

Employees using artificial intelligence at work in India
भारत में कार्यस्थल पर कृत्रिम बुद्धिमत्ता का उपयोग करने वाले कर्मचारी

- **92 In per cent.** India has the **highest artificial intelligence adoption rate** in the **Asia Pacific region**, with **92% of employees using the technology at work**, according to a report by the **Boston Consulting Group.**
  92 प्रतिशत। बोस्टन कंसल्टिंग ग्रुप (Boston Consulting Group) की रिपोर्ट के अनुसार, **भारत** में **एशिया-प्रशांत क्षेत्र (Asia Pacific region)** में **कृत्रिम बुद्धिमत्ता (artificial intelligence)** अपनाने की **सबसे अधिक दर (highest adoption rate)** है, जहाँ **92% कर्मचारी** अपने कार्यस्थल **(at work)** पर इस तकनीक का उपयोग कर रहे हैं।

- The **regional average** stands at **78%**, ahead of the **global average of 72%.**
  क्षेत्रीय औसत (regional average) 78% है, जो **वैश्विक औसत (global average)** 72% से अधिक है।

India can be a beacon of how AI can be used for social good: OpenAI official

GS III: S&T

The Hindu Bureau
BENGALURU

OpenAI, a San Francisco-based AI research and deployment firm that created ChatGPT, has introduced IndQA, a new benchmark for evaluating AI systems on Indian culture and languages, here on Tuesday.

The company said its mission was to make AGI (Artificial General Intelligence) benefit all of humanity, across languages and cultures. Some 80% of people worldwide do not speak English as their primary language and yet most existing benchmarks that measure non-English language capabilities fell short, the firm noted.

That means, existing

The company said its mission was to make AGI benefit all.

multilingual benchmarks like MMMLU are now saturated, which make them less useful for measuring real progress.

In addition, current benchmarks mostly focus on translation or multiple-choice tasks. They don't

adequately capture what rally matters for evaluating an AI system's language capabilities – understanding context, culture, history, and things that matter to people where they live.

That's why IndQA, a new benchmark designed to evaluate how well AI models understand and reason questions that matter in Indian languages, across cultural domains.

"Today, we are rolling out IndQA. Built in collaboration with 261 experts across 12 languages, IndQA fills a key gap by enabling fair and rigorous evaluation that reflects India's cultural and linguistic diversity," said Srinivas Narayanan, CTO, B2B Application, OpenAI.

India can be a beacon of how AI can be used for social good: OpenAI official
भारत इस बात का उदाहरण बन सकता है कि कृत्रिम बुद्धिमत्ता (AI) का उपयोग सामाजिक कल्याण के लिए कैसे किया जा सकता है: ओपनएआई अधिकारी

- **OpenAI**, a **San Francisco-based AI research and deployment firm** that created **ChatGPT**, has introduced **IndQA**, a new benchmark for evaluating AI systems on **Indian culture and languages**, here on Tuesday.
  ओपनएआई (OpenAI), जो सैन फ्रांसिस्को स्थित एआई अनुसंधान और परिनियोजन कंपनी **(San Francisco-based AI research and deployment firm)** है और जिसने **ChatGPT** विकसित किया, ने मंगलवार को **भारतीय संस्कृति और भाषाओं (Indian culture and languages)** पर एआई सिस्टम का मूल्यांकन करने के लिए एक नया बेंचमार्क **IndQA** पेश किया।

- The company said its **mission** was to make **AGI (Artificial General Intelligence)** benefit **all of humanity**, across **languages and cultures**.
  कंपनी ने कहा कि उसका **उद्देश्य (mission)** यह सुनिश्चित करना है कि **कृत्रिम सामान्य बुद्धिमत्ता (AGI - Artificial General Intelligence)** भाषाओं और **संस्कृतियों (languages and cultures)** के पार **समस्त मानवता (all of humanity)** के लिए लाभदायक हो।

- Some **80% of people worldwide** do not speak **English** as their primary language and yet most existing benchmarks that measure **non-English language capabilities**

fell short, the firm noted.

कंपनी ने बताया कि **दुनिया भर में लगभग 80% लोग (80% of people worldwide)** अंग्रेजी **(English)** को अपनी प्राथमिक भाषा के रूप में नहीं बोलते, फिर भी अधिकांश मौजूदा **गैर-अंग्रेजी भाषा क्षमता मापदंड (non-English language benchmarks)** अपर्याप्त साबित हुए हैं।

- That means, existing **multilingual benchmarks like MMMLU** are now **saturated**, which make them **less useful for measuring real progress**.

इसका अर्थ है कि मौजूदा **बहुभाषी मानक जैसे एमएमएमएलयू (MMMLU)** अब **संतृप्त (saturated)** हो चुके हैं, जिससे वे **वास्तविक प्रगति मापने (measuring real progress)** में **कम उपयोगी (less useful)** हो गए हैं।

- In addition, current benchmarks mostly focus on **translation or multiple-choice tasks**. They don't adequately capture what really matters for evaluating an AI system's **language capabilities — understanding context, culture, history, and things that matter to people where they live**.

इसके अतिरिक्त, वर्तमान मानक मुख्य रूप से **अनुवाद (translation)** या **बहुविकल्पीय कार्यों (multiple-choice tasks)** पर केंद्रित हैं। ये इस बात को सही ढंग से नहीं माप पाते कि एआई प्रणाली की **भाषा क्षमता (language capabilities)** का सही मूल्यांकन करने के लिए क्या महत्वपूर्ण है — जैसे **संदर्भ, संस्कृति, इतिहास, और लोगों के जीवन से जुड़े मुद्दे (context, culture, history, and local relevance)।**

- That's why **IndQA**, a new benchmark designed to evaluate how well **AI models understand and reason questions that matter in Indian languages, across cultural domains**.

इसी कारण से **IndQA** को तैयार किया गया है — एक नया बेंचमार्क जो यह मूल्यांकन करता है कि **एआई मॉडल भारतीय भाषाओं (Indian languages)** और **सांस्कृतिक क्षेत्रों (cultural domains)** में महत्वपूर्ण प्रश्नों को **कितनी गहराई से समझते और विश्लेषण (understand and reason)** करते हैं।

- "Today, we are rolling out **IndQA**. Built in collaboration with **261 experts across 12 languages**, IndQA fills a key gap by enabling **fair and rigorous evaluation that reflects India's cultural and linguistic diversity**," said **Srinivas Narayanan**, CTO, **B2B Application, OpenAI**.

"आज हम **IndQA** लॉन्च कर रहे हैं। यह **12 भाषाओं के 261 विशेषज्ञों (261 experts across 12 languages)** के सहयोग से बनाया गया है। IndQA एक महत्वपूर्ण अंतर को भरता है क्योंकि यह **भारत की सांस्कृतिक और भाषाई विविधता (India's cultural and linguistic diversity)** को प्रतिबिंबित करने वाले **निष्पक्ष और कठोर मूल्यांकन (fair and rigorous evaluation)** को संभव बनाता है," **श्रीनिवास नारायणन (Srinivas Narayanan)**, मुख्य प्रौद्योगिकी अधिकारी (CTO), बी2बी एप्लिकेशन, ओपनएआई (OpenAI) ने कहा।

DAILY CURRENT AFFAIRS (GS Paper IV and Essay)	
TOPICS COVERED	05_11_2025
1.	**NHRC notice to Karnataka for extorting bribe from grieving man** शोकग्रस्त व्यक्ति से रिश्वत वसूलने पर कर्नाटक को एनएचआरसी का नोटिस

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

2.

Value of undeclared assets owned by an Uttar Pradesh DSP
उत्तर प्रदेश के एक डीएसपी के स्वामित्व वाली अघोषित संपत्तियों का मूल्य

NHRC notice to Karnataka for extorting bribe from grieving man

GS IV: Ethics Essay

NEW DELHI

NHRC notice to Karnataka for extorting bribe from grieving man
शोकग्रस्त व्यक्ति से रिश्वत वसूलने पर कर्नाटक को एनएचआरसी का नोटिस

- The **National Human Rights Commission (NHRC)** on Tuesday issued a **notice to the Karnataka government** in a case where a **64-year-old father**, mourning for his **daughter's death**, was made to **pay bribes at every step**, including to an **ambulance driver, police, crematorium staff and civic officials in Bengaluru.**

राष्ट्रीय मानवाधिकार आयोग (NHRC) ने मंगलवार को एक मामले में **कर्नाटक सरकार को नोटिस जारी किया**, जिसमें एक **64 वर्षीय पिता**, जो अपनी **बेटी की मृत्यु का शोक मना रहा था**, को **हर स्तर पर रिश्वत देने के लिए मजबूर किया गया**, जिसमें एंबुलेंस चालक, पुलिस, शवदाह गृह कर्मचारी और बेंगलुरु के नागरिक अधिकारी शामिल थे।

- The commission issued **notices to the Chief Secretary and the Director General of Police (DGP), Karnataka**, calling for a **detailed report on the matter within two weeks.**

आयोग ने **कर्नाटक के मुख्य सचिव और पुलिस महानिदेशक (DGP)** को **दो सप्ताह के भीतर इस मामले पर विस्तृत रिपोर्ट प्रस्तुत करने** का **नोटिस जारी किया।**

- The case pertains to the **demise of a woman working in the city** who had **suffered a brain haemorrhage on September 18.**

यह मामला **शहर में काम करने वाली एक महिला की मृत्यु** से संबंधित है, जिसे **18 सितंबर को ब्रेन हैमरेज** हुआ था।

- It was reported that when the **father called an ambulance** after his daughter's death, the **ambulance driver apparently over-charged** for the services.

यह रिपोर्ट किया गया कि जब **पिता ने अपनी बेटी की मृत्यु के बाद एंबुलेंस बुलवाई**, तो **एंबुलेंस चालक ने सेवाओं के लिए अत्यधिक शुल्क वसूला।**

- When he reported his daughter's death to the **police**, they not only displayed a **lack of empathy**, but gave **copies of the FIR and post-mortem report** only **after a bribe was paid.**

जब उन्होंने अपनी बेटी की मृत्यु की सूचना **पुलिस को दी**, तो उन्होंने न केवल **संवेदनहीनता दिखाई**, बल्कि **एफआईआर और पोस्टमॉर्टेम रिपोर्ट की प्रतियां** केवल **रिश्वत मिलने के बाद ही दीं।**

- The **father had to again bribe the crematorium staff** after they **delayed final rites.**

शवदाह गृह के कर्मचारियों ने अंतिम संस्कार में देरी की, जिसके बाद **पिता को फिर से उन्हें रिश्वत देनी पड़ी।**

- There was also a **considerable delay in issuing a death certificate** from **Mahadevapura Municipal authorities.**

महादेवपुरा नगर निगम अधिकारियों की ओर से **मृत्यु प्रमाण पत्र जारी करने में भी काफी देरी हुई।**

- The **certificate was issued only after the father paid a bribe**, the **NHRC communique said.**

मृत्यु प्रमाण पत्र केवल तब जारी किया गया जब पिता ने रिश्वत दी, ऐसा एनएचआरसी के **बयान** में कहा गया।

Value of undeclared assets owned by an Uttar Pradesh DSP

Value of undeclared assets owned by an Uttar Pradesh DSP

उत्तर प्रदेश के एक डीएसपी के स्वामित्व वाली अघोषित संपत्तियों का मूल्य

GS IV: Ethics

100 In ₹ crore. Uttar Pradesh Police officer Rishikant Shukla, a Deputy Superintendent of Police, has been suspended following an inquiry triggered by an SIT probe that uncovered undeclared assets worth around ₹100 crore. PTI

- **100 In ₹ crore.** Uttar Pradesh Police officer **Rishikant Shukla**, a **Deputy Superintendent of Police (DSP)**, has been **suspended** following an inquiry triggered by an **SIT probe** that uncovered **undeclared assets worth around ₹100 crore**.

₹100 करोड़। उत्तर प्रदेश पुलिस अधिकारी ऋषिकांत शुक्ला (Rishikant Shukla), जो **उप पुलिस अधीक्षक (DSP)** हैं, को **निलंबित (suspended)** कर दिया गया है, क्योंकि **विशेष जांच दल (SIT probe)** द्वारा की गई जांच में उनके पास **लगभग ₹100 करोड़ मूल्य की अघोषित संपत्तियाँ (undeclared assets)** पाई गईं।