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**History**

**04/12/2025**

# Understanding Ambedkar: why reading his work carefully is important today

A new book by Valerian Rodrigues argues that B. R. Ambedkar is not just a political leader but also a moral philosopher. His ideas on representation, power, democracy, nationalism speak to the marginalised in any society

**GS I: History**  
**Arpan Acharya**

The appropriation of B.R. Ambedkar remains central to the project of the current regime trying to make inroads into the Dalit electorate. His intellectual legacy is sought to be decontextualised and refashioned to suit current political agendas. *Ambedkar's Political Philosophy: A Grammar of Public Life from the Social Margins* by political philosopher Prof. Valerian Rodrigues seeks to (re)situate Ambedkarite thought in its socio-political, and more importantly, moral context. The book takes the position that Ambedkar cannot be reduced to a political leader; he is a philosopher and thinker whose work speaks to the marginalised in any society. Rodrigues foregrounds the political frame that makes Ambedkar ask the difficult questions that the Congress party often expediently overlooked in the name of anti-colonial unity and then post-colonial consensus.

The work stands alongside recent works on Ambedkar, both biographical and analytical. V. Geetha's *Bhimrao Ramji Ambedkar and the Question of Socialism in India* explains Ambedkar's contentious relationship with communists in India (both within the Congress and without). He thought that socialism had immense emancipatory potential and proposed a parliamentary socialist structure for independent India in *States and Minorities*. At the same time, he thought that Indian communists, owing to ignorance about caste, did not understand that Brahmanism is not just a historical relic but an ever-evolving reactionary socio-intellectual force.

Aakash Singh Rathore's *Becoming Babasaheb* is a biography (until 1929) which wants to do away with the 'bloodlessness' and inaccuracies of

previous biographers; in that sense it's a 'full length, personality-driven narrative', without the slew of misinformation that has crept in over the years (sometimes thanks to Ambedkar's disregard of dates in his own writings). Militating against the hagiographical tradition is Anand Teltumbde's *Iconoclast*, where he supplements the already existing sources with his reflections to get people to 'rethink their state of devotional inebriation' with respect to Ambedkar. The irony lies in making the iconoclast an icon. But, as Rodrigues clarifies in his introduction, the focus of this work is its exposition of (and engagement with) concepts that Ambedkar regards as 'political'; in that sense, the book is not biographical.

## Comprehensive overview

One of the other contributions of the book is that the author makes Ambedkar accessible. This is not because Ambedkar is difficult to read but because he wrote so much over his lifetime. The author draws upon a variety of sources within Ambedkar's own works as well as works about Ambedkar to give a comprehensive overview on Ambedkar's take on political concepts like representation, power, untouchability, democracy, religion, nationalism, etc. All of this is undergirded by his moral view of human nature; that, given the right kind of sociality, even the worst of us are capable of reform and even the most wretched can improve their conditions.

In a world obsessed with nationalism, Rodrigues shows us that Ambedkar's idea of nationalism was connected to larger questions of justice and fraternity and was irreducible to mere markers of essentialised identity like race, religion, territory, etc. The institutional architecture of operationalising nationalism has to be carefully thought

through, especially when it comes to the question of representation. Otherwise, all that nationalism and electoral democracy yield is brute majoritarianism which reinscribes dominant narratives as the norm. In other words, it is important to have a politico-moral idea of politics which understands that strategic moves do not necessarily mean corrosive instrumentalism.

## A rigged system

Rodrigues underlines the Ambedkarite point that the mandate to speak for a community should never be with other communities which have traditionally been their oppressors. If the form of representation does not account for this, the oppressed will have to perform compromise with the oppressors. During the Second Round Table conference he wanted separate electorates for the Untouchables so that a system of common electorates would not be hijacked by caste Hindus. Eventually, he had to come to terms with Gandhi on this and accept reservations in common electorates. His fears were not unfounded; the 1937 elections showed that even in reserved constituencies, Congress candidates won. To the Congress that was proof of their pan-India appeal; for Ambedkar it was the demonstration of a system rigged against effective Dalit representation. Electorally speaking, the Bahujan Samaj Party (BSP) has been the only significant party in India with an explicit Dalit agenda to have won an election, but even they had to compromise to be electorally viable in a common electorate.

In his conclusion, Rodrigues flags the burden that Ambedkar brings to bear on the state and the fact that it fails because it needs the consent of the people it is trying to fight against. The capture of Parliament by the entrenched socio-economic elite post-Independence

meant that the only way to get a seat at the table was to build electoral heft through numbers. But if there is no space for universality within the main representative institution, it becomes a conduit for partisan electoral jostling which starts essentialising group identities.

That will happen in a polity which does not aspire to idealism and whose only value is using the electorate to win a mandate.

## Political Hinduism

Ambedkar is celebrated as a constitutionalist, but mainstream political narratives overlook the complex history of his relationship with the Congress party, the Constituent Assembly, and the Constitution itself.

The current political project also overlooks the hostile relationship he had with Hinduism which ultimately results in the conviction that there is no emancipation, material or transcendent, for anyone within Hinduism; and thus his conversion to Buddhism. Reading Ambedkar carefully, as Rodrigues helps us to do, allows us to understand the continuing project of political Hinduism.

Gandhi's offer to Dalits and the current political regime's outreach project have certain similarities, namely that caste is seen as a social problem (thus internal to Hinduism); and that symbolic acts (cleaning toilets, touching the feet of people engaged in manual scavenging) will always be prioritised over structural change.

As philosopher Michel Foucault says, we don't write a history of the past simply because we are interested in the past; we write a history of the past to write a history of the present.

Arpan Acharya is Assistant Professor at Jindal Global Law School, OP Jindal Global University. Views expressed are personal.

## Understanding Ambedkar: why reading his work carefully is important today अम्बेडकर को समझना: आज उनके कार्यों को ध्यान से पढ़ना क्यों महत्वपूर्ण है

- A new book by Valerian Rodrigues argues that B. R. Ambedkar is **not just a political leader but also a moral philosopher**.  
Valerian Rodrigues की एक नई पुस्तक यह तर्क देती है कि B. R. Ambedkar केवल एक राजनीतिक नेता नहीं बल्कि एक नैतिक दार्शनिक भी हैं।
- His ideas on **representation, power, democracy, nationalism speak to the marginalised in any society**.  
उनके विचार प्रतिनिधित्व, सत्ता, लोकतंत्र, राष्ट्रवाद पर किसी भी समाज में हाशिए पर रहे लोगों के लिए प्रासंगिक हैं।
- The appropriation of B.R. Ambedkar remains central to the **project of the current regime trying to make inroads into the Dalit electorate**.  
B.R. Ambedkar के विचारों का अधिग्रहण वर्तमान शासन की Dalit मतदाताओं तक पहुँच बनाने की परियोजना का केंद्र बना हुआ है।



- His intellectual legacy is sought to be decontextualised and refashioned to suit current political agendas.  
उनकी बौद्धिक विरासत को संदर्भ से बाहर करके वर्तमान राजनीतिक एजेंडों के अनुसार ढालने का प्रयास किया जा रहा है।



- **Ambedkar's Political Philosophy: A Grammar of Public Life from the Social Margins** by political philosopher Prof. Valerian Rodrigues seeks to (re)situate Ambedkarite thought in its socio-political, and more importantly, moral context.

राजनीतिक दार्शनिक Prof. Valerian Rodrigues की पुस्तक **Ambedkar's Political Philosophy: A Grammar of Public Life from the Social Margins** का उद्देश्य है Ambedkarite विचारों को उनके सामाजिक-राजनीतिक और विशेष रूप से नैतिक संदर्भ में पुनर्स्थापित करना।

- The book takes the position that **Ambedkar cannot be reduced to a political leader; he is a philosopher and thinker whose work speaks to the marginalised in any society.**

पुस्तक यह स्थिति रखती है कि Ambedkar केवल एक राजनीतिक नेता तक सीमित नहीं हैं; वे एक दार्शनिक और विचारक हैं जिनका कार्य किसी भी समाज में हाशिए पर रहे लोगों से संवाद करता है।

- Rodrigues foregrounds the political frame that makes Ambedkar ask the difficult questions that the Congress party often expediently overlooked.

Rodrigues यह रेखांकित करते हैं कि वह राजनीतिक ढांचा जिसके तहत Ambedkar ने कठिन प्रश्न उठाए, जिसे Congress पार्टी अक्सर व्यावहारिक कारणों से नजरअंदाज करती रही।

- The work stands alongside recent works on Ambedkar, both biographical and analytical. यह कार्य हाल की Ambedkar पर आधारित पुस्तकों के साथ खड़ा है, जो जीवनी और विश्लेषणात्मक दोनों प्रकार की हैं।

- **V. Geetha's Bhimrao Ramji Ambedkar and the Question of Socialism in India** explains Ambedkar's contentious relationship with communists in India.

V. Geetha की **Bhimrao Ramji Ambedkar and the Question of Socialism in India** में Ambedkar के भारत में कम्युनिस्टों के साथ विवादास्पद संबंध को समझाया गया है।

- He thought that **socialism had immense emancipatory potential** and proposed a **parliamentary socialist structure for independent India in States and Minorities.**

उन्होंने सोचा कि समाजवाद में अत्यधिक मुक्ति की संभावनाएँ हैं और उन्होंने स्वतंत्र भारत में राज्यों और अल्पसंख्यकों के लिए संसदीय समाजवादी ढांचा प्रस्तावित किया।

- **At the same time, he thought that Indian communists, owing to ignorance about caste, did not understand that Brahmanism is not just a historical relic but an ever-evolving reactionary socio-intellectual force.**

साथ ही, उन्होंने यह भी माना कि भारतीय कम्युनिस्ट, जाति के बारे में अज्ञानता के कारण, यह नहीं समझ पाए कि ब्राह्मणवाद केवल ऐतिहासिक अवशेष नहीं बल्कि एक लगातार विकसित हो रही प्रतिक्रिया समाज-बौद्धिक शक्ति है।

- **Aakash Singh Rathore's Becoming Babasaheb** is a biography (until 1929) which wants to do away with the 'bloodlessness' and inaccuracies of previous biographers.

Aakash Singh Rathore की **Becoming Babasaheb** एक जीवनी है (1929 तक), जो पिछले जीवनीकारों की 'निर्जीवता' और अशुद्धियों को हटाना चाहती है।

- In that sense it's a 'full length, personality-driven narrative', without the slew of misinformation that has crept in over the years.

उस अर्थ में यह एक 'पूर्ण लंबाई, व्यक्तित्व-प्रेरित कहानी' है, बिना उन गलत सूचनाओं के जो वर्षों में घुस गई हैं।

- **Anand Teltumbde's Iconoclast** supplements the already existing sources with his reflections to get people to 'rethink their state of devotional inebriation' with respect to Ambedkar.

Anand Teltumbde की **Iconoclast** मौजूदा स्रोतों को अपने विचारों के साथ जोड़ते हैं ताकि लोग Ambedkar के संबंध में 'अपनी भक्तिपूर्ण उन्मत्त स्थिति पर पुनर्विचार करें'।

- The irony lies in making the iconoclast an icon.

विडंबना यह है कि आइकॉनोक्लास्ट को एक आइकॉन बना दिया गया है।



- Rodrigues clarifies that the focus of this work is its **exposition of (and engagement with) concepts that Ambedkar regards as 'political'**.  
Rodrigues स्पष्ट करते हैं कि इस कार्य का केंद्र है उन अवधारणाओं का प्रदर्शन (और सहभागिता) जो Ambedkar को 'राजनीतिक' लगती हैं।

## Comprehensive overview

### व्यापक अवलोकन

- One contribution of the book is that the author makes **Ambedkar accessible**.  
पुस्तक का एक योगदान यह है कि लेखक ने **Ambedkar को सुलभ बनाया**।
- This is not because Ambedkar is difficult to read but because he **wrote so much over his lifetime**.  
यह इसलिए नहीं कि Ambedkar पढ़ने में कठिन हैं, बल्कि इसलिए कि उन्होंने **अपने जीवनकाल में बहुत लिखा**।
- The author draws upon a variety of sources within Ambedkar's own works as well as works about Ambedkar to give a **comprehensive overview on Ambedkar's take on political concepts like representation, power, untouchability, democracy, religion, nationalism, etc.**  
लेखक Ambedkar के अपने कार्यों और उनके बारे में लिखी पुस्तकों से विभिन्न स्रोतों का उपयोग करते हैं ताकि प्रतिनिधित्व, शक्ति, अछूतपन, लोकतंत्र, धर्म, राष्ट्रवाद आदि जैसे राजनीतिक विचारों पर Ambedkar की दृष्टि का व्यापक अवलोकन प्रस्तुत किया जा सके।
- All of this is undergirded by his **moral view of human nature**; that, given the right kind of sociality, **even the worst of us are capable of reform and even the most wretched can improve their conditions**.  
यह सब उनके **मानव स्वभाव के नैतिक दृष्टिकोण** द्वारा समर्थित है; कि, सही प्रकार की सामाजिकता मिलने पर, **हममें सबसे बुरे भी सुधार करने में सक्षम हैं और सबसे दुखी लोग भी अपनी परिस्थितियों को सुधार सकते हैं**।
- In a world obsessed with nationalism, Rodrigues shows that **Ambedkar's idea of nationalism was connected to larger questions of justice and fraternity**.  
एक ऐसी दुनिया में जो राष्ट्रवाद में व्यस्त है, Rodrigues दिखाते हैं कि Ambedkar का राष्ट्रवाद का विचार न्याय और भ्रातृत्व के बड़े सवालों से जुड़ा हुआ था।
- The institutional architecture of operationalising nationalism has to be **carefully thought through**, especially when it comes to **the question of representation**.  
राष्ट्रवाद को लागू करने की संस्थागत संरचना को **सावधानीपूर्वक सोचना** होगा, विशेष रूप से **प्रतिनिधित्व के सवाल** के संबंध में।
- Otherwise, **all that nationalism and electoral democracy yield is brute majoritarianism which reinscribes dominant narratives as the norm**.  
अन्यथा, वह सभी राष्ट्रवाद और चुनावी लोकतंत्र केवल **कठोर बहुसंख्यकवाद** प्रदान करते हैं जो प्रमुख कथाओं को सामान्य मानक के रूप में फिर से लिखते हैं।
- In other words, it is important to have a **politico-moral idea of politics** which understands that **strategic moves do not necessarily mean corrosive instrumentalism**.  
दूसरे शब्दों में, यह महत्वपूर्ण है कि **राजनीति के राजनीतिक-नैतिक विचार** हों, जो समझते हैं कि **रणनीतिक कदम जरूरी नहीं कि विनाशकारी साधनवाद का मतलब हों**।

## A rigged system

### तंग किया हुआ सिस्टम

- Rodrigues underlines the **Ambedkarite point that the mandate to speak for a community should never be with other communities which have traditionally been their oppressors**.  
Rodrigues इस **Ambedkarite बिंदु** को रेखांकित करते हैं कि **किसी समुदाय के लिए बोलने का अधिकार कभी अन्य समुदायों के हाथ में नहीं होना चाहिए, जो पारंपरिक रूप से उनके उत्पीड़क रहे हैं**।
- If the form of **representation does not account for this**, the oppressed will have to **compromise with the oppressors**.



यदि प्रतिनिधित्व का स्वरूप इसका ध्यान नहीं रखता, तो उत्पीड़ित को उत्पीड़क के साथ समझौता करना होगा।

- During the **Second Round Table conference** he wanted **separate electorates for the Untouchables**.  
दूसरे Round Table सम्मेलन के दौरान, उन्होंने अछूतों के लिए अलग निर्वाचन मंडल की इच्छा व्यक्त की।
- Eventually, he had to come to terms with Gandhi on this and accept **reservations in common electorates**.  
अंततः, उन्हें गांधी के साथ समझौता करना पड़ा और सामान्य निर्वाचन मंडलों में आरक्षण स्वीकार करना पड़ा।
- His fears were not unfounded; the **1937 elections showed that even in reserved constituencies, Congress candidates won**.  
उनके डर बेबुनियाद नहीं थे; 1937 के चुनावों ने दिखाया कि आरक्षित निर्वाचन क्षेत्रों में भी Congress उम्मीदवार जीते।
- To the Congress that was proof of their **pan-India appeal**; for Ambedkar it was the demonstration of a **system rigged against effective Dalit representation**.  
Congress के लिए यह उनके संपूर्ण भारत में अपील का प्रमाण था; Ambedkar के लिए यह प्रभावी Dalit प्रतिनिधित्व के खिलाफ तंग किया हुआ सिस्टम दिखाने वाला था।
- Electorally speaking, the **Bahujan Samaj Party (BSP)** has been the only significant party in India with an **explicit Dalit agenda to have won an election**.  
चुनाव की दृष्टि से, **Bahujan Samaj Party (BSP)** भारत में एकमात्र महत्वपूर्ण पार्टी रही है जिसके पास स्पष्ट Dalit एजेंडा के साथ चुनाव जीतने का रिकॉर्ड है।
- But even they had to **compromise to be electorally viable in a common electorate**.  
लेकिन उन्हें भी सामान्य निर्वाचन मंडल में चुनावी रूप से जीवंत रहने के लिए समझौता करना पड़ा।
- In his conclusion, Rodrigues flags the **burden that Ambedkar brings to bear on the state and the fact that it fails because it needs the consent of the people it is trying to fight against**.  
अपनी निष्कर्ष में, Rodrigues इस भार को रेखांकित करते हैं जो Ambedkar राज्य पर डालते हैं और यह तथ्य कि यह विफल होता है क्योंकि इसे उनके खिलाफ लड़ने वाले लोगों की सहमति चाहिए।
- The **capture of Parliament by the entrenched socio-economic elite post-independence** meant that the only way to get a seat at the table was to build **electoral heft through numbers**.  
स्वतंत्रता के बाद संसद पर सशक्त सामाजिक-आर्थिक अभिजात वर्ग का कब्जा यह देता है कि टेबल पर सीट पाने का एकमात्र तरीका था संख्याओं के माध्यम से चुनावी ताकत बनाना।
- But if there is no space for **universality within the main representative institution**, it becomes a **conduit for partisan electoral jostling**.  
लेकिन यदि मुख्य प्रतिनिधि संस्था में सार्वभौमिकता की कोई जगह नहीं है, तो यह पक्षपाती चुनावी संघर्ष का माध्यम बन जाता है।
- That will happen in a polity which does not aspire to **idealism and whose only value is using the electorate to win a mandate**.  
यह उस राजनीति में होगा जो आदर्शवाद की आकांक्षा नहीं रखती और जिसकी एकमात्र मूल्य जनता का उपयोग कर जनादेश जीतना है।

## Political Hinduism राजनीतिक हिंदू धर्म

- Ambedkar is celebrated as a **constitutionalist**, but mainstream political narratives overlook the **complex history of his relationship with the Congress party, the Constituent Assembly, and the Constitution itself**.  
Ambedkar को एक **संवैधानिकवादी** के रूप में सम्मानित किया जाता है, लेकिन मुख्यधारा की राजनीतिक कथाएँ उनके **Congress पार्टी, संविधान सभा और संविधान के साथ जटिल संबंधों के इतिहास** को नजरअंदाज करती हैं।
- The **current political project also overlooks the hostile relationship he had with Hinduism**.  
वर्तमान राजनीतिक परियोजना यह भी नजरअंदाज करती है कि उनके **हिंदू धर्म के साथ शत्रुतापूर्ण संबंध** थे।
- Reading Ambedkar carefully, as Rodrigues helps us to do, allows us to understand the **continuing project of political Hinduism**.



Ambedkar को ध्यान से पढ़ना, जैसा कि Rodrigues हमें करने में मदद करते हैं, हमें राजनीतिक हिंदू धर्म की सतत परियोजना को समझने की अनुमति देता है।

- Gandhi's offer to Dalits and the current political regime's outreach project have certain similarities, namely that **caste is seen as a social problem (thus internal to Hinduism)**.  
Gandhi का Dalit के प्रति प्रस्ताव और वर्तमान राजनीतिक शासन की पहुँच परियोजना में कुछ समानताएँ हैं, अर्थात् जाति को सामाजिक समस्या के रूप में देखा जाता है (इस प्रकार हिंदू धर्म के अंतर्गत)।
- And that **symbolic acts (cleaning toilets, touching the feet of people engaged in manual scavenging) will always be prioritised over structural change**.  
और प्रतीकात्मक क्रियाएँ (शौचालय साफ करना, मैनुअल स्कैवेंजिंग में लगे लोगों के पैरों को छूना) हमेशा संरचनात्मक परिवर्तन से ऊपर प्राथमिकता पाती हैं।
- As philosopher **Michel Foucault** says, we don't write a history of the past simply because we are interested in the past; we write a history of the past to write a **history of the present**.  
जैसा कि दार्शनिक **Michel Foucault** कहते हैं, हम केवल इसलिए अतीत का इतिहास नहीं लिखते क्योंकि हमें अतीत में रुचि है; हम अतीत का इतिहास इसलिए लिखते हैं ताकि हम **वर्तमान का इतिहास** लिख सकें।

**Society**

**04/12/2025**

GS I: Society

Questions and Answers to the previous day's daily quiz: 1. India ratified the UN

Convention on the Rights of Persons with Disabilities on this day. **Ans: October 1, 2007**

2. The number of categories of disabilities identified under the Rights of Persons with Disabilities Act, 2016. **Ans: 21**

3. The name of this iconic civil disobedience event that took place on March 12, 1990 in Washington D.C. **Ans:**

**The Capitol Crawl**

4. 'More I believe in myself, my strength multiplies, my will power gives the confidence that I can do it'. This is one of the three point oath for persons with disabilities suggested by this President of India. **Ans: Dr. A.P.J. Abdul Kalam**

Visual: Name this Paralympian from India.

**Ans: Sumit Antil**

**Early Birds:** Tamal Biswas| Vidyasagar Reddy| M. Suresh Kumar| Gaurav Deshmukh| Suchit Narottam

## QUIZ

### Ratification of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) by India

- India signed the Convention on **30 March 2007** (the date the UN opened it for signature).
- India ratified the Convention on **1 October 2007**.
- The Convention came into force globally on **3 May 2008**, after the required number of ratifications was achieved.
- By ratifying, India committed to implement the Convention's provisions, including harmonising national laws and ensuring equal rights and accessibility for persons with disabilities.

• **Why this matters:** The ratification marked a shift in how disability is viewed — not merely as a medical or welfare issue, but as a matter of **rights, dignity, equality and inclusion**.

• The Convention treats persons with disabilities as full holders of human rights, not passive beneficiaries.

### The Rights of Persons with Disabilities Act, 2016 (RPwD Act, 2016)

• The 2016 Act replaced the earlier law from 1995, expanding the categories of recognized disabilities.

- Under the 2016 Act, the number of specified disabilities increased from 7 (under the 1995 Act) to **21**.
- The **21 categories** include a wide range of conditions such as: Blindness; Low-vision; Hearing Impairment; Locomotor Disability; Leprosy-cured persons; Intellectual Disability;



Mental Illness; Autism Spectrum Disorder; Cerebral Palsy; Muscular Dystrophy; Chronic Neurological Conditions; Specific Learning Disabilities; Multiple Sclerosis; Speech & Language Disability; Thalassaemia; Hemophilia; Sickle Cell Disease; Acid-attack victims; and more.

- The Central Government also retains the power to notify additional categories if necessary, allowing the law to adapt over time.
- **What this implies:** This broadened definition allows more persons to be legally recognised as disabled (“persons with benchmark disability” if they have at least 40% disability) and eligible for entitlements such as reservation in education and employment, accessible infrastructure, and other benefits under the law.

### The “Three-Point Oath” (Quote)

- The quote **“More I believe in myself, my strength multiplies, my will power gives the confidence that I can do it”** is part of a **Three-Point Oath for People with Special Abilities (Persons with Disabilities)** that was administered by Dr. A.P.J. Abdul Kalam (former President of India) during an award ceremony on the occasion of International Day of Persons with Disabilities.
- The full “Oath” (in that address) included statements of self-belief, the value of knowledge and study for progress, and confidence in one’s inner strength.

### The “Capitol Crawl” — March 12, 1990, Washington D.C.

- The event you refer to is correctly named the Capitol Crawl. On **12 March 1990**, disability rights activists — many using wheelchairs — abandoned their aids and crawled up the steps of the United States Capitol building in Washington D.C. to demand passage of the Americans with Disabilities Act (ADA).
- This was a dramatic act of **civil disobedience** aimed at drawing attention to the barriers faced by disabled people.

<b>GS Paper II: Polity, Governance, And International Relations</b>	
<b>TOPICS COVERED</b>	<b>04 December</b>
	<b>Polity</b>
1.	<b>Govt. withdraws order on Sanchar Saathi app</b> सरकार ने संचार साथी ऐप पर आदेश वापस लिया
2.	<b>No clarity on appointments to minorities commission</b> अल्पसंख्यक आयोग में नियुक्तियों पर कोई स्पष्टता नहीं
3.	<b>Court relaxes norms for scribes in exams conducted by UPSC</b> UPSC द्वारा आयोजित परीक्षाओं में लेखकों के लिए नियमों में ढील
4.	<b>Taking the leap</b> कदम बढ़ाना



5.	<b>Smaller districts, bigger questions</b> छोटे जिले, बड़े सवाल
	<b>Governance</b>
6.	<b>'States will have to abide by terms of Samagra Shiksha to receive funds'</b> 'राज्यों को धन प्राप्त करने के लिए समग्र शिक्षा की शर्तों का पालन करना होगा'
	<b>International Relations</b>
7.	<b>Gyanesh Kumar takes charge at International IDEA council</b> ग्यानेश कुमार ने इंटरनेशनल IDEA काउंसिल में कार्यभार संभाला
8.	<b>EU agrees deal to ban all imports of Russian gas by autumn 2027</b> ईयू ने सभी रूसी गैस आयात को शरद ऋतु 2027 तक प्रतिबंधित करने पर समझौता किया
9.	<b>Inside the viral machine that turned S. Korea's crisis into anti-China crusade</b> वायरल मशीन के अंदर जिसने दक्षिण कोरिया के संकट को चीन-विरोधी अभियान में बदल दिया
10.	<b>Belgium says EU's plan to use frozen Russian assets to aid Ukraine 'risky'</b> बेल्जियम कहता है कि यूरोपीय संघ की योजना रूसी जमे हुए संपत्ति का उपयोग यूक्रेन की मदद के लिए 'जोखिमपूर्ण' है

**Polity**

04/12/2025



# Govt. withdraws order on Sanchar Saathi app

Order to handset makers recalled after outcry over installing; intrusive app without consent'

**GS II: Polity**

**Aroon Deep**  
NEW DELHI

The Department of Telecommunications (DoT) on Wednesday walked back its directions to phone manufacturers ordering them to install a government app starting next year.

The reversal caps a controversial episode, in which the government first downplayed the nature of the mandate before committing to withdraw it altogether, arguing that a recent spike in downloads of Sanchar Saathi app meant that there was "no need" for smartphone manufacturers to preload the app on their devices.

"The number of users has been increasing rapidly, and the mandate to install the app was meant to accelerate this process and

make the app available to less aware citizens easily," the DoT said.

## DoT's three directions

The original direction was one of at least three issued after the DoT gave itself new powers to regulate Telecommunication Identifier User Entities (TIUE), a concept the department created to allow it to issue such orders to any entity that used phone numbers, not just telecom operators.

The order, not shared publicly but leaked by one or more recipients who were not expecting it, sparked immediate uproar as Internet users, civil society and the Opposition collectively criticised the idea of a government app being placed on phones of all Indians without their knowledge.

Responding to Congress

DoT claims a spike in downloads means there was 'no need' now to preload the app on new devices

## Rollback after backlash

Following criticism, the Department of Telecom withdraws order to mandatorily pre-install Sanchar Saathi app in mobile phones

### DoT's statements

**Dec. 1:** In order to safeguard the citizens from buying the non-genuine handsets, enable easy reporting of suspected misuse of telecom resources ... ensure that the Sanchar Saathi mobile application is pre-installed

**Dec. 3:** Just in last one day, 6 lakh citizens have registered for downloading the App which is a 10x increase in its uptake ... Given its increasing acceptance, govt. has decided not to make the pre-installation mandatory for mobile manufacturers



'This app's success is premised on public support; if, based on feedback, we have to change the order, we are ready to do that'



**JYOTIRADITYA SCINDIA**  
Communications Minister

Member of Parliament Deepinder Singh Hooda in Parliament, BJP leader and Communications Minister Jyotiraditya Scindia defended the app, saying that "1.5 crore fraudulent mobile connections were disconnected, 26 lakh lost phones were traced ... we have only taken steps to make the app available to everyone".

Still, Mr. Scindia said, "This app's success is premised on public support; if, based on feedback, we have to change the order, we are ready to do that."

### Third order

This is the third such order that was issued after the Department of Telecommunications notified an amendment to the Tele-

com Cyber Security Rules, 2024 last month.

Another order requires platforms like WhatsApp to restrict accounts from operating on their platform if the device being used to access the service doesn't contain the registered SIM card.

That order also mandated that services like WhatsApp Web would have to

be logged out every six hours, as opposed to staying signed in persistently.

Yet another order, which has not been previously reported, was issued to major messaging and social media platforms, requiring them to integrate the DoT's Financial Fraud Risk Indicator and a blacklist of suspended mobile numbers into their databases, and "immediately deactivate" their accounts on these platforms.

The orders come from the DoT's seven-person-strong AI and Digital Intelligence Unit, which deals with issues ranging from SIM security, "illegal telecom set-ups," and coordinating with the Reserve Bank of India on issues of financial fraud.

In its December 1 order,

the Department of Telecommunications said, "In order to safeguard the citizens from buying the non-genuine handsets, enable easy reporting of suspected misuse of telecom resources ... the DoT has issued Directions [to] Ensure that the Sanchar Saathi mobile application is pre-installed on all mobile handsets manufactured or imported for use in India."

### Six lakh downloads

In the latest statement withdrawing the order, the Department said, "Just in last one day, 6 lakh citizens have registered for downloading the App which is a 10x increase in its uptake ... Given Sanchar Saathi's increasing acceptance, Government has decided not to make the pre-installation mandatory for mobile manufacturers."

## Govt. withdraws order on Sanchar Saathi app सरकार ने संचार साथी ऐप पर आदेश वापस लिया

- Govt. withdraws order on Sanchar Saathi app  
सरकार ने संचार साथी ऐप पर आदेश वापस लिया
- Order to handset makers recalled after outcry over installing; 'intrusive app without consent' इंस्टॉल करने पर विरोध के बाद हैंडसेट निर्माताओं को दिया गया आदेश वापस लिया गया; 'सहमति के बिना दखल देने वाला ऐप'
- DoT claims a spike in downloads means there was 'no need' now to preload the app on new devices  
DoT का दावा है कि डाउनलोड में अचानक बढ़ोतरी का मतलब है कि नए उपकरणों पर ऐप प्रीलोड करने की 'अब कोई आवश्यकता' नहीं है
- The app direction was one of at least three issued after the DoT gave itself new powers यह ऐप निर्देश कम से कम तीन निर्देशों में से एक था, जो DoT ने स्वयं को नई शक्तियाँ देने के बाद जारी किए थे
- The Department of Telecommunications (DoT) on Wednesday walked back its directions to phone manufacturers ordering them to install a government app starting next year. दूरसंचार विभाग (DoT) ने बुधवार को फोन निर्माताओं को अगले वर्ष से सरकारी ऐप इंस्टॉल करने के अपने निर्देशों को वापस ले लिया।
- The reversal caps a controversial episode, in which the government first downplayed the nature of the mandate before committing to withdraw it altogether, arguing that a recent spike in downloads of Sanchar Saathi app meant that there was "no need" for smartphone manufacturers to preload the app on their devices. यह बदलाव एक विवादास्पद घटना को समाप्त करता है, जिसमें सरकार ने पहले आदेश की प्रकृति को कम आंका और बाद में इसे वापस लेने का निर्णय किया, यह तर्क देते हुए कि संचार साथी ऐप के डाउनलोड में हालिया बढ़ोतरी का मतलब था कि स्मार्टफोन निर्माताओं के लिए ऐप को प्रीलोड करने की "कोई आवश्यकता नहीं" है।
- "The number of users has been increasing rapidly, and the mandate to install the app was meant to accelerate this process and make the app available to less aware citizens easily," the DoT said. "उपयोगकर्ताओं की संख्या तेज़ी से बढ़ रही है, और ऐप इंस्टॉल करने के आदेश का उद्देश्य इस प्रक्रिया को तेज़ करना और कम जागरूक नागरिकों को ऐप आसानी से उपलब्ध कराना था," DoT ने कहा।



## DoT's three directions

### DoT के तीन निर्देश

- The original direction was one of at least three issued after the DoT gave itself new powers to regulate **Telecommunication Identifier User Entities (TIUE)**, a concept the department created to allow it to issue such orders to any entity that used phone numbers, not just telecom operators.  
मूल निर्देश कम से कम तीन में से एक था, जो DoT ने स्वयं को **Telecommunication Identifier User Entities (TIUE)** को विनियमित करने की नई शक्तियाँ देने के बाद जारी किया था — यह एक अवधारणा है, जिसे विभाग ने बनाया ताकि वह ऐसे आदेश किसी भी इकाई को जारी कर सके जो फोन नंबरों का उपयोग करती है, न कि केवल दूरसंचार ऑपरेटरों को।
- The order, not shared publicly but leaked by one or more recipients who were not expecting it, sparked immediate uproar as Internet users, civil society and the Opposition collectively criticised the idea of a government app being placed on phones of all Indians without their knowledge.  
यह आदेश, जिसे सार्वजनिक रूप से साझा नहीं किया गया था लेकिन एक या अधिक प्राप्तकर्ताओं द्वारा लीक किया गया, जिनको इसकी उम्मीद नहीं थी, तुरंत विवाद का कारण बना क्योंकि इंटरनेट उपयोगकर्ताओं, नागरिक समाज और विपक्ष ने सभी भारतीयों के फोन पर बिना जानकारी के सरकारी ऐप रखने के विचार की सामूहिक रूप से आलोचना की।
- Responding to Congress Member of Parliament Deepinder Singh Hooda in Parliament, BJP leader and Communications Minister Jyotiraditya Scindia defended the app, saying that **“1.5 crore fraudulent mobile connections were disconnected, 26 lakh lost phones were traced ... we have only taken steps to make the app available to everyone”**.  
संसद में कांग्रेस सांसद दीपिंदर सिंह हुड्डा के जवाब में, भाजपा नेता और संचार मंत्री ज्योतिरादित्य सिंधिया ने ऐप का बचाव करते हुए कहा कि **“1.5 करोड़ फर्जी मोबाइल कनेक्शन बंद किए गए, 26 लाख खोए फोन ट्रेस किए गए ... हमने सिर्फ ऐप को सभी के लिए उपलब्ध कराने के कदम उठाए हैं”**।
- Still, Mr. Scindia said, “This app’s success is premised on public support; if, based on feedback, we have to change the order, we are ready to do that.”  
फिर भी, श्री सिंधिया ने कहा, “इस ऐप की सफलता जनता के समर्थन पर आधारित है; यदि प्रतिक्रिया के आधार पर हमें आदेश बदलना पड़े, तो हम इसके लिए तैयार हैं।”

## Third order

### तीसरा आदेश

- This is the third such order that was issued after the Department of Telecommunications notified an amendment to the **Telecom Cyber Security Rules, 2024** last month.  
यह तीसरा ऐसा आदेश है, जो दूरसंचार विभाग ने पिछले महीने **Telecom Cyber Security Rules, 2024** में संशोधन अधिसूचित करने के बाद जारी किया।
- Another order requires platforms like **WhatsApp** to restrict accounts from operating on their platform if the device being used to access the service doesn't contain the registered SIM card.  
एक अन्य आदेश **WhatsApp** जैसी सेवाओं से कहता है कि यदि सेवा उपयोग करने वाले डिवाइस में पंजीकृत **SIM कार्ड** नहीं है, तो प्लेटफॉर्म पर उस खाते के संचालन को प्रतिबंधित करें।
- That order also mandated that services like **WhatsApp Web** would have to be logged out every **six hours**, as opposed to staying signed in persistently.  
उस आदेश में यह भी कहा गया कि **WhatsApp Web** जैसी सेवाओं को हर **छह घंटे** में लॉग आउट होना होगा, बजाय लगातार साइन-इन रहने के।
- Yet another order, which has not been previously reported, was issued to major messaging and social media platforms, requiring them to integrate the DoT's **Financial Fraud Risk Indicator** and a blacklist of suspended mobile numbers into their databases, and **“immediately deactivate”** their accounts on these platforms.  
एक और आदेश, जिसकी पहली रिपोर्ट नहीं की गई थी, प्रमुख मैसेजिंग और सोशल मीडिया प्लेटफॉर्मों को जारी किया गया, जिसमें उनसे कहा गया कि वे DoT के **Financial Fraud Risk Indicator** और निलंबित मोबाइल नंबरों की ब्लैकलिस्ट को अपने डेटाबेस में शामिल करें, और इन प्लेटफॉर्मों पर उनके खातों को “तुरंत निष्क्रिय” करें।



- The orders come from the DoT's **seven-person-strong AI and Digital Intelligence Unit**, which deals with issues ranging from SIM security, "illegal telecom setups," and coordinating with the Reserve Bank of India on issues of financial fraud.  
ये आदेश DoT की सात-सदस्यीय AI और डिजिटल इंटेलिजेंस यूनिट से आते हैं, जो SIM सुरक्षा, "अवैध दूरसंचार सेटअप," और वित्तीय धोखाधड़ी के मुद्दों पर भारतीय रिज़र्व बैंक के साथ समन्वय जैसे विषयों से संबंधित है।
- In its December 1 order, the Department of Telecommunications said, "In order to safeguard the citizens from buying the nongenuine handsets, enable easy reporting of suspected misuse of telecom resources ... The DoT has issued directions [to] ensure that the Sanchar Saathi mobile application is pre-installed on all mobile handsets manufactured or imported for use in India."  
अपने 1 दिसंबर के आदेश में, दूरसंचार विभाग ने कहा, "नागरिकों को नकली हैंडसेट खरीदने से बचाने, दूरसंचार संसाधनों के संदिग्ध दुरुपयोग की आसान रिपोर्टिंग सक्षम करने ... के लिए DoT ने निर्देश जारी किए हैं कि भारत में उपयोग के लिए निर्मित या आयातित सभी मोबाइल हैंडसेट में संचार साथी मोबाइल ऐप प्री-इंस्टॉल हो।"

### Six lakh downloads

### छह लाख डाउनलोड

- In the latest statement withdrawing the order, the Department said, "Just in the last one day, **6 lakh citizens have registered for downloading the App which is a 10x increase in its uptake ... Given Sanchar Saathi's increasing acceptance, the Government has decided not to make the pre-installation mandatory for mobile manufacturers.**"  
ताज़ा बयान में, जिसमें आदेश वापस लिया गया, विभाग ने कहा, "सिर्फ पिछले एक दिन में **6 लाख** नागरिकों ने ऐप डाउनलोड करने के लिए पंजीकरण किया है, जो इसकी लोकप्रियता में **10 गुना** वृद्धि है ... संचार साथी की बढ़ती स्वीकृति को देखते हुए, सरकार ने मोबाइल निर्माताओं के लिए प्री-इंस्टॉलेशन अनिवार्य न बनाने का निर्णय लिया है।"

## No clarity on appointments to minorities commission

GS II: Polity

Ishita Mishra  
NEW DELHI

Over a month after the Delhi High Court sought the Centre's response on delayed appointments in the National Commission for Minorities, Union Minister for Minority Affairs Kiren Rijiju, in a written reply in the Rajya Sabha, remained non-committal.

All posts of Members and the Chairperson in the NCM have been vacant since April this year.

AIADMK Rajya Sabha MP from Tamil Nadu I.S. Inbadurai and Telangana Rajya Sabha MP K.R. Suresh Reddy asked the Mi-

nister whether the government had taken note of the court's observations regarding the long-pending vacancies in the National Commission for Minorities (NCM) and sought the present status of the appointment of the Chairperson, Vice-Chairperson and Members. They also asked whether any process had been initiated to fill these vacancies and if interim arrangements were in place to ensure that the functioning of the NCM was not adversely affected.

Mr. Rijiju, in his written reply, said that under the NCM Act, 1992, the Chairperson, Vice-Chairperson

and Members of the Commission are to be nominated by the Union government from among persons of eminence, ability and integrity.

### No timeline

The Minister added that grievances received by the commission continue to be taken up with the concerned authorities for redress. "The government endeavours to appoint Chairperson, Vice-Chairperson and all the Members of the Commission," he said, without providing any tentative timeline for the appointments, as sought by the MPs.



## No clarity on appointments to minorities commission

### अल्पसंख्यक आयोग में नियुक्तियों पर कोई स्पष्टता नहीं

- No clarity on appointments to minorities commission  
अल्पसंख्यक आयोग में नियुक्तियों पर कोई स्पष्टता नहीं
- Over a month after the **Delhi High Court sought the Centre's response on delayed appointments in the National Commission for Minorities**, Union Minister for **Minority Affairs** Kiren Rijju, in a written reply in the **Rajya Sabha**, remained non-committal.  
दिल्ली उच्च न्यायालय द्वारा **राष्ट्रीय अल्पसंख्यक आयोग** में लंबित नियुक्तियों पर केंद्र से जवाब मांगे हुए एक महीने से अधिक समय बीत जाने के बाद, **अल्पसंख्यक कार्य मंत्री** किरन रिजजू ने **राज्यसभा** में एक लिखित जवाब में कोई प्रतिबद्धता नहीं जताई।
- **All posts of Members and the Chairperson in the NCM have been vacant since April this year.**  
इस वर्ष **अप्रैल** से **एनसीएम** में सदस्यों और अध्यक्ष के सभी पद रिक्त हैं।
- AIADMK Rajya Sabha MP from Tamil Nadu I.S. Inbadurai and Telangana Rajya Sabha MP K.R. Suresh Reddy asked the Minister whether the government had taken note of the **court's observations regarding the long-pending vacancies in the National Commission for Minorities (NCM)** and sought the present status of the appointment of the Chairperson, Vice-Chairperson and Members. They also asked whether any process had been initiated to fill these vacancies and if interim arrangements were in place to ensure that the functioning of the **NCM** was not adversely affected.  
तमिलनाडु से एआईएडीएमके राज्यसभा सांसद आई.एस. इनबादुरई और तेलंगाना राज्यसभा सांसद के.आर. सुरेश रेड्डी ने मंत्री से पूछा कि क्या सरकार ने **राष्ट्रीय अल्पसंख्यक आयोग (एनसीएम)** में लम्बे समय से लंबित रिक्तियों पर अदालत की टिप्पणियों पर ध्यान दिया है, और अध्यक्ष, उपाध्यक्ष और सदस्यों की नियुक्तियों की वर्तमान स्थिति क्या है। उन्होंने यह भी पूछा कि क्या इन रिक्तियों को भरने की प्रक्रिया शुरू की गई है और क्या कोई अंतरिम व्यवस्था की गई है ताकि **एनसीएम** का कामकाज प्रभावित न हो।
- Mr. Rijju, in his written reply, said that **under the NCM Act, 1992, the Chairperson, Vice-Chairperson and Members of the Commission are to be nominated by the Union government from among persons of eminence, ability and integrity.**  
श्री रिजजू ने अपने लिखित जवाब में कहा कि **एनसीएम अधिनियम, 1992** के तहत अध्यक्ष, उपाध्यक्ष और आयोग के सदस्य केंद्र सरकार द्वारा ऐसे व्यक्तियों में से नामित किए जाते हैं जिनमें प्रतिष्ठा, क्षमता और ईमानदारी हो।

## No timeline

### कोई समयसीमा नहीं

- The Minister added that grievances received by the commission continue to be taken up with the concerned authorities for redress. "The government endeavours to appoint Chairperson, Vice-Chairperson and all the Members of the Commission," he said, without providing any tentative timeline for the appointments, as sought by the MPs.  
मंत्री ने कहा कि आयोग को प्राप्त शिकायतों को निवारण के लिए संबंधित अधिकारियों के पास भेजा जाता रहता है। "सरकार आयोग के अध्यक्ष, उपाध्यक्ष और सभी सदस्यों की नियुक्ति के प्रयास कर रही है," उन्होंने कहा, लेकिन सांसदों द्वारा मांगी गई नियुक्तियों की किसी भी अनुमानित समयसीमा को नहीं बताया।



# Court relaxes norms for scribes in exams conducted by UPSC

GS II: Polity

Aaratrika Bhaumik  
NEW DELHI

Observing that the Constitution envisions persons with disabilities participating in the nation's collective journey on an equal footing, the Supreme Court on Wednesday directed the easing of the procedure for changing scribes in examinations conducted by the Union Public Service Commission and mandated the deployment of screen-reader software for visually impaired candidates.

A Bench of Justices Vikram Nath and Sandeep Mehta was hearing a petition filed by Mission Accessibility, an organisation working to advance disability rights, which sought a modification of the UPSC's timeline for scribe registration and permission for eligible candidates to use laptops equipped with screen-reader software and accessible digital question papers during the Civil Services Examination.

"The UPSC, being the premier constitutional body entrusted with upholding the values of merit and fairness in public recruitment, must ensure that its processes are accessible, transparent, and sensitive

## SC also mandates deployment of screen-reader software for visually impaired candidates

to the needs of every segment of society. It is therefore imperative that the directions issued herein are carried out with utmost earnestness, sensitivity, and expedition, so that the constitutional vision of equal opportunity and meaningful participation of persons with disabilities is not reduced to a distant aspiration, but is realised as a living, enforceable, and enduring reality in the conduct of all public examinations in the country," the ruling, whose pronouncement coincides with the International Day of Persons with Disabilities, held.

The court mandated that every UPSC examination notification must include a clear provision permitting eligible candidates to request a change of scribe up to at least seven days before the examination.

Such requests, it added, must be decided through a reasoned order within three working days.

sensitivity, and expedition, so that the constitutional vision of **equal opportunity** and meaningful participation of **persons with disabilities** is not reduced to a distant aspiration, but is realised as a living, enforceable, and enduring reality in the conduct of all public examinations in the country," the ruling, whose pronouncement coincides with the **International Day of Persons with Disabilities**, held.

"UPSC, जो सार्वजनिक भर्ती में योग्यता और निष्पक्षता के मूल्यों को बनाए रखने वाला प्रमुख संवैधानिक निकाय है, उसे यह सुनिश्चित करना चाहिए कि उसकी प्रक्रियाएँ सुलभ, पारदर्शी और समाज के हर वर्ग की आवश्यकताओं के प्रति संवेदनशील हों। इसलिए यह अनिवार्य है कि यहाँ जारी निर्देश अत्यधिक ईमानदारी, संवेदनशीलता और तत्परता के साथ लागू किए जाएँ ताकि **समान अवसर** और **विकलांग व्यक्तियों** की सार्थक

## Court relaxes norms for scribes in exams conducted by UPSC UPSC द्वारा आयोजित परीक्षाओं में लेखकों के लिए नियमों में ढील

### Court relaxes norms for scribes in exams conducted by UPSC

UPSC द्वारा आयोजित परीक्षाओं में लेखकों के लिए नियमों में ढील

Observing that the Constitution envisions persons with disabilities participating in the nation's collective journey on an equal footing, the **Supreme Court** on Wednesday directed the **easing of the procedure for changing scribes in examinations conducted by the Union Public Service Commission (UPSC)** and **mandated the deployment of screen-reader software for visually impaired candidates.**

यह देखते हुए कि संविधान विकलांग व्यक्तियों को राष्ट्र की सामूहिक यात्रा में समान रूप से भाग लेने की परिकल्पना करता है, **सुप्रीम कोर्ट** ने बुधवार को **संघ लोक सेवा आयोग (UPSC)** द्वारा आयोजित परीक्षाओं में लेखकों को बदलने की प्रक्रिया को सरल बनाने और दृष्टिबाधित उम्मीदवारों के लिए **स्क्रीन-रीडर सॉफ्टवेयर** लगाने का निर्देश दिया।

A Bench of Justices **Vikram Nath** and **Sandeep Mehta** was hearing a petition filed by **Mission Accessibility**, an organisation working to advance disability rights, which **sought a modification of the UPSC's timeline for scribe registration and permission for eligible candidates to use laptops equipped with screen-reader software and accessible digital question papers during the Civil Services Examination.**

न्यायमूर्ति **विक्रम नाथ** और **संदीप मेहता** की एक पीठ **मिशन एक्सेसिबिलिटी** द्वारा दायर याचिका पर सुनवाई कर रही थी, जो विकलांगता अधिकारों को बढ़ावा देने वाला संगठन है, जिसने UPSC की लेखक पंजीकरण समयरेखा में संशोधन और **सिविल सेवा परीक्षा** के दौरान स्क्रीन-रीडर सॉफ्टवेयर युक्त लैपटॉप और सुलभ डिजिटल प्रश्न पत्रों का उपयोग करने की अनुमति मांगी थी।

"The UPSC, being the premier constitutional body entrusted with upholding the values of merit and fairness in public recruitment, must ensure that its processes are accessible, transparent, and sensitive to the needs of every segment of society. It is therefore imperative that the directions issued herein are carried out with utmost earnestness,



भागीदारी की संवैधानिक दृष्टि एक दूरस्थ आकांक्षा न रहकर देश की सभी सार्वजनिक परीक्षाओं में एक जीवंत, लागू करने योग्य और स्थायी वास्तविकता बन सके," यह निर्णय, जिसकी घोषणा अंतर्राष्ट्रीय विकलांगजन दिवस के साथ हुई, में कहा गया।

- The court mandated that every **UPSC examination notification** must include a clear provision permitting eligible candidates to request a change of scribe up to at least **seven days** before the examination.

अदालत ने अनिवार्य किया कि प्रत्येक **UPSC परीक्षा अधिसूचना** में एक स्पष्ट प्रावधान होना चाहिए, जो योग्य उम्मीदवारों को परीक्षा से कम से कम **सात दिन** पहले लेखक बदलने का अनुरोध करने की अनुमति दे।

- Such requests, it added, must be decided through a reasoned order within **three working days**.

ऐसे अनुरोधों पर, अदालत ने कहा, **तीन कार्य दिवसों** के भीतर एक कारणयुक्त आदेश के माध्यम से निर्णय लिया जाना चाहिए।

GS II: Polity

## Taking the leap

Discriminatory provisions that impede lives of those with leprosy must go

**S**ystematic efforts are required to eliminate stigma, that are often seeded by fear, misinformation or ancient beliefs, and to remove the discriminatory attitudes towards those affected. The Supreme Court of India's intervention to battle stigma and discrimination in the case of leprosy is a corrective action that could not have been delayed any further. On a direction from the Court, the NHRC recently submitted that 97 central and State laws continue to contain provisions that discriminate against persons with leprosy. In sum and substance, these provisions deny access to things as basic as public transport and public spaces, right to run for elected office, and access to employment, or running a business venture. The Court was hearing a batch of petitions contending that there were a number of provisions across central and State statutes that discriminate against persons with leprosy. Caused mainly by the bacterium, *Mycobacterium leprae*, leprosy is among the earliest known infections to affect humans, with skeletal evidence dating back to 2000 BCE. Today, India continues to report about 57 % of leprosy cases worldwide, with genetic predisposition and living in unsanitary conditions raising the susceptibility. The NHRC, which has been in pursuit of this issue since 2021, first put out a comprehensive document that recommended early identification, timely treatment, rehabilitation, and removing discriminatory practices to ensure dignity and equal access to fundamental rights for persons with leprosy. This includes a plea to the Centre to enact a law to replace derogatory terminology that persists in the laws of the land, and a pointed recommendation to the Unique Identification Authority of India to promote the use of iris scans for Aadhaar enrolment, as leprosy primarily affects the fingertips, through nerve damage.

Given that a plethora of medical advancements have enabled leprosy to be a non-infectious condition, and be fully curable with the right interventions, it will be a shame to allow these discriminatory, antediluvian provisions to continue to be in force. The judges directed all States and Union Territories to submit reports detailing the steps that they have initiated in this regard. In fact, armed with the evidence that the NHRC has provided, the Centre and States must set themselves the urgent task of removing these provisions, and launching remedial action. In this day and age, it is unfathomable that the state continues to trap a group of citizens in the dark ages based on laws written by humans who did not know better.

## Taking the leap कदम बढ़ाना

- Discriminatory provisions that impede lives of those with **leprosy** must go

जो **भूरे रोग (leprosy)** से प्रभावित लोगों के जीवन में बाधा डालते हैं, ऐसे **भेदभावपूर्ण प्रावधानों** को हटाना चाहिए

- Systematic efforts are required to eliminate **stigma**, that are often seeded by fear, misinformation or ancient beliefs, and to remove the discriminatory attitudes towards those affected.

**डंक रोग** से जुड़े **कलंक (stigma)** को खत्म करने के लिए व्यवस्थित प्रयासों की आवश्यकता है, जो अक्सर **भय, गलत सूचना** या **प्राचीन मान्यताओं** से पैदा होते हैं, और प्रभावित लोगों के प्रति **भेदभावपूर्ण रवैया** को हटाना जरूरी है।

- The **Supreme Court of India's intervention** to battle stigma and discrimination in the case of leprosy is a corrective action that could not have been delayed any further.

**भारत के सर्वोच्च न्यायालय का हस्तक्षेप** भूरे रोग के मामलों में **कलंक और भेदभाव** से लड़ने के लिए एक सुधारात्मक कदम है, जिसे और आगे नहीं टाला जा सकता था।

- On a direction from the Court, the **NHRC** recently submitted that 97 central and State laws continue to contain provisions that **discriminate against persons with leprosy**.

न्यायालय के निर्देश पर, **NHRC** ने हाल ही में बताया कि 97 **केंद्रीय और राज्य कानूनों** में अभी भी ऐसे प्रावधान हैं जो **भूरे रोग से प्रभावित लोगों** के खिलाफ भेदभाव करते हैं।

- In sum and substance, these provisions deny access to things as basic as **public transport and public spaces, right to run for elected office, and access to employment, or running a business venture**.

संक्षेप में, ये प्रावधान लोगों को **सार्वजनिक परिवहन और सार्वजनिक स्थानों, चुनाव में भाग लेने का अधिकार, रोजगार, या व्यवसाय संचालन** जैसी मूल चीजों तक पहुँचने से वंचित करते हैं।

- The Court was hearing a batch of petitions contending that there were a number of provisions across central and State statutes that discriminate against persons with leprosy.

न्यायालय कई **याचिकाओं** की सुनवाई कर रहा था, जिनमें कहा गया था कि **केंद्रीय और राज्य कानूनों** में कई प्रावधान ऐसे हैं जो **भूरे रोग से प्रभावित लोगों** के खिलाफ भेदभाव करते हैं।



- Caused mainly by the bacterium, **Mycobacterium leprae**, leprosy is among the earliest known infections to affect humans, with skeletal evidence dating back to 2000 BCE.  
मुख्य रूप से बैक्टीरिया **Mycobacterium leprae** के कारण होने वाला **भूरे रोग (leprosy)** मानवों को प्रभावित करने वाले सबसे पुराने ज्ञात संक्रमणों में से है, जिसका **कंकालीय प्रमाण** 2000 ईसा पूर्व तक मिलता है।
- Today, **India continues to report about 57% of leprosy cases worldwide, with genetic predisposition and living in unsanitary conditions raising the susceptibility.**  
आज, **भारत दुनिया भर में भूरे रोग के लगभग 57% मामलों की रिपोर्ट करता है, जहां आनुवंशिक प्रवृत्ति और अस्वच्छ परिस्थितियों में जीवन संवेदनशीलता बढ़ाते हैं।**
- The **NHRC**, which has been in pursuit of this issue since 2021, first put out a comprehensive document that **recommended early identification, timely treatment, rehabilitation, and removing discriminatory practices to ensure dignity and equal access to fundamental rights for persons with leprosy.**  
**NHRC**, जो 2021 से इस मुद्दे पर काम कर रहा है, ने पहले एक **व्यापक दस्तावेज़** जारी किया जिसमें **जल्दी पहचान, समय पर उपचार, पुनर्वास, और भेदभावपूर्ण प्रथाओं को हटाने की सिफ़ारिश की गई ताकि भूरे रोग से प्रभावित लोगों की गौरवपूर्ण और समान मूल अधिकारों तक पहुँच सुनिश्चित हो सके।**
- This includes a plea to the Centre to enact a law to replace **derogatory terminology** that persists in the laws of the land, and **a pointed recommendation to the Unique Identification Authority of India to promote the use of iris scans for Aadhaar enrolment, as leprosy primarily affects the fingertips, through nerve damage.**  
इसमें केंद्र से अनुरोध शामिल है कि वह ऐसे कानून बनाए जो **अपमानजनक शब्दावली** को बदल दें जो अभी भी कानूनों में बनी हुई है, और **यूनिक आइडेंटिफिकेशन अथॉरिटी ऑफ इंडिया को आधार पंजीकरण में आईरिस स्कैन के उपयोग को बढ़ावा देने की सिफ़ारिश की गई है, क्योंकि भूरे रोग मुख्य रूप से उंगलियों के छोर को स्नायु क्षति के माध्यम से प्रभावित करता है।**
- Given that a plethora of medical advancements have enabled leprosy to be a non-infectious condition, and be fully curable with the right interventions, it will be a shame to allow these discriminatory, antediluvian provisions to continue to be in force.**  
चूंकि कई **चिकित्सकीय प्रगति** ने भूरे रोग को एक **गैर-संक्रामक स्थिति** बनाने में सक्षम किया है, और सही उपायों से इसे पूरी तरह **ठीक** किया जा सकता है, इसलिए यह **भेदभावपूर्ण, प्राचीन प्रावधानों (antediluvian provisions)** को लागू रहने देना शर्मनाक होगा।
- The judges directed all States and Union Territories to submit reports detailing the steps that they have initiated in this regard.  
न्यायाधीशों ने सभी **राज्यों और केंद्रशासित प्रदेशों** को निर्देश दिया कि वे इस संबंध में उठाए गए कदमों का **विस्तृत विवरण** प्रस्तुत करें।
- In fact, armed with the evidence that the **NHRC** has provided, the Centre and States must set themselves the urgent task of removing these provisions, and launching **remedial action.**  
वास्तव में, **NHRC** द्वारा प्रदान किए गए **सबूतों** के आधार पर, केंद्र और राज्य स्वयं को इन प्रावधानों को हटाने और **सुधारात्मक कार्रवाई** शुरू करने का **अत्यंत आवश्यक कार्य** तय करें।
- In this day and age, it is unfathomable that the state continues to trap a group of citizens in the **dark ages** based on laws written by humans who did not know better.  
आज के समय में यह सोचना भी मुश्किल है कि राज्य उन नागरिकों के एक समूह को **अंधकार युग (dark ages)** में फंसा रहा है, उन **कानूनों** के आधार पर जो ऐसे लोगों ने बनाए थे जो बेहतर नहीं जानते थे।



## Smaller districts, bigger questions

Andhra's administrative boundaries have been redrawn twice, but to what end?

GS II: Polity

### STATE OF PLAY

G.V.R. Subba Rao

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From poll promises to present-day governance, Andhra Pradesh's political map has changed dramatically, reshaping priorities and public expectations. The State's administrative boundaries were redrawn in 2022 and once again in 2025, each time driven more by electoral commitments and political imperatives than by long-term administrative strategy.

The first major restructuring was undertaken by the YSR Congress government led by former Chief Minister Y.S. Jagan Mohan Reddy, who, ahead of the 2019 elections, promised that each Lok Sabha constituency would be converted into a district. Fulfilling that pledge, his government reorganised the State in April 2022, increasing the number of districts from 13 to 26. The present administration, led by Chief Minister and Telugu Desam Party national president N. Chandrababu Naidu, campaigned in the 2024 elections on a pledge to correct that reshuffle. Less than two years after the earlier overhaul, the new NDA government approved another round of reorganisation in November 2025, taking the total to 29.

This latest announcement has reignited a State-wide debate: is rapid territorial decentralisation driving meaningful governance reform, or is it merely adding layers to political cartography? Critics argue that the restructuring lacks coherence and appears politically motivated, fragmenting Assembly segments across two or three districts, shrinking district sizes, and distorting



earlier geographical and administrative structures.

One major flashpoint is the reshaping of Annamayya district. The carving out of the new Madanapalle district strips Annamayya of key Assembly segments, leaving it dramatically reduced in size and administrative relevance. Similarly, Prakasam district's disfigurement stems from splitting four important segments to form Markapuram district. However, the most contentious move is the creation of Polavaram district without Polavaram.

Defending its earlier reorganisation, the YSRCP argues that it adopted a structured model based on parliamentary constituencies, ensuring minimum population thresholds of 15 to 20 lakh, at least two revenue divisions per district, and no fragmentation of Assembly seats. Through this exercise, revenue divisions rose from 51 to 76, and balanced development was claimed as the central objective. Critics, however, argued that the Lok Sabha-based model was fundamentally flawed, lacked geographical logic, ignored historical and cultural linkages, and placed many administrative units unreasonably far from district headquarters (in one case, 277 km away).

Announcing the 2025 expansion, Mr. Naidu said the restructuring would empower

local governance, particularly in tribal and drought-prone belts, and prepare the ground for future Assembly delimitation.

Yet critics caution that the earlier restructuring promised similar outcomes but faced significant implementation challenges. The 2025 announcement presents itself as both expansion and correction, responding to long-standing demands for improved accessibility. It also reflects a political recalibration under the current government, emphasising regional inclusion and administrative rationalisation. Yet a recurring criticism is that governments seldom provide clear criteria when forming new districts.

Creating districts is also financially and institutionally demanding. It requires establishing new collectorates, police headquarters, zilla parishad offices, and courts; hiring additional administrative personnel; separating land, revenue, and welfare records; and building supporting infrastructure. Without parallel strengthening of local self-governance bodies, the creation of smaller districts risks becoming a substitute for real decentralisation.

This raises a broader question: in an era of digital governance, is the proliferation of smaller districts still necessary for efficiency?

Ultimately, the success of Andhra's restructuring will depend on whether political commitment is matched by administrative capacity, realistic financial planning, adequate staffing, transparent digital systems, and stakeholder participation. If these foundations are established, smaller districts could enhance service delivery, improve responsiveness, and strengthen participatory governance.

## Smaller districts, bigger questions छोटे जिले, बड़े सवाल

• Andhra's administrative boundaries have been redrawn twice, but to what end?

आंध्र प्रदेश की प्रशासनिक सीमाओं को दो बार फिर से तय किया गया है, लेकिन इसका क्या परिणाम हुआ?

• From poll promises to present-day governance, Andhra Pradesh's political map has changed dramatically, reshaping priorities and public expectations.

चुनावी वादों से लेकर वर्तमान शासन तक, आंध्र प्रदेश का राजनीतिक नक्शा नाटकीय रूप से बदल गया है, जिससे प्राथमिकताएँ और जनता की अपेक्षाएँ नई आकार ले रही हैं।

• The State's administrative boundaries were redrawn in 2022 and once again in 2025, each time driven more by electoral commitments and political imperatives than by long-term administrative strategy.

राज्य की प्रशासनिक सीमाएँ 2022 में और फिर 2025 में फिर से तय की गईं, हर बार यह निर्णय चुनावी वादों और राजनीतिक आवश्यकताओं से प्रेरित था, न कि दीर्घकालिक प्रशासनिक रणनीति से।

• The first major restructuring was undertaken by the YSR Congress government led by former Chief Minister Y.S. Jagan Mohan Reddy, who,

ahead of the 2019 elections, promised that each Lok Sabha constituency would be converted into a district.

पहला बड़ा पुनर्गठन YSR कांग्रेस सरकार द्वारा किया गया, जिसका नेतृत्व पूर्व मुख्यमंत्री Y.S. जगन मोहन रेड्डी ने किया था, जिन्होंने 2019 के चुनावों से पहले वादा किया था कि प्रत्येक लोकसभा निर्वाचन क्षेत्र को एक जिले में बदल दिया जाएगा।



- Fulfilling that pledge, his government reorganised the State in April 2022, **increasing the number of districts from 13 to 26.**  
उस वादे को पूरा करते हुए, उनकी सरकार ने अप्रैल 2022 में राज्य का पुनर्गठन किया, और **जिलों** की संख्या को 13 से बढ़ाकर 26 कर दिया।
- The present administration, led by **Chief Minister and Telugu Desam Party** national president **N. Chandrababu Naidu**, campaigned in the 2024 elections on a pledge to correct that reshuffle.  
वर्तमान प्रशासन, जिसका नेतृत्व **मुख्यमंत्री और तेलुगु देशम पार्टी** के राष्ट्रीय अध्यक्ष **एन. चंद्रबाबू नायडू** कर रहे हैं, ने 2024 के चुनावों में इस पुनर्गठन को सुधारने का वादा किया।
- Less than two years after the earlier overhaul, the **new NDA government approved another round of reorganisation in November 2025, taking the total to 29.**  
पहले के पुनर्गठन के दो साल से भी कम समय में, नई **NDA सरकार** ने नवंबर 2025 में पुनर्गठन का एक और दौर मंजूर किया, जिससे **कुल जिलों की संख्या 29** हो गई।
- **This latest announcement has reignited a State-wide debate: is rapid territorial decentralisation driving meaningful governance reform, or is it merely adding layers to political cartography?**  
इस नवीनतम घोषणा ने **राज्यव्यापी बहस** को फिर से जिंदा कर दिया है: क्या तेज़ **क्षेत्रीय विकेंद्रीकरण** वास्तविक शासन सुधार को प्रेरित कर रहा है, या केवल राजनीतिक नक्शे में परतें जोड़ रहा है?
- **Critics argue that the restructuring lacks coherence and appears politically motivated, fragmenting Assembly segments across two or three districts, shrinking district sizes, and distorting earlier geographical and administrative structures.**  
आलोचकों का तर्क है कि पुनर्गठन में **सुसंगतता** की कमी है और यह **राजनीतिक प्रेरित** प्रतीत होता है, जिससे **विधानसभा क्षेत्र** दो या तीन जिलों में बंट जाते हैं, जिले के आकार छोटे हो जाते हैं, और पहले की **भौगोलिक और प्रशासनिक संरचनाओं** में विकृति आती है।
- One major flashpoint is the reshaping of **Annamayya district.**  
एक प्रमुख विवाद का केंद्र **अन्नामैय्या जिला** का पुनर्गठन है।
- The carving out of the new **Madanapalle district** strips Annamayya of key **Assembly segments**, leaving it dramatically reduced in size and **administrative relevance.**  
नए **मदनपल्ले जिले** के निर्माण ने अन्नामैय्या से महत्वपूर्ण **विधानसभा क्षेत्र** हटा दिए, जिससे इसका आकार और **प्रशासनिक महत्व** नाटकीय रूप से घट गया।
- Similarly, **Prakasam district's disfigurement** stems from splitting four important segments to form **Markapuram district.**  
इसी तरह, **प्रकाशम जिले का विकृति** चार महत्वपूर्ण क्षेत्रों को अलग कर **मारकापुरम जिले** के निर्माण से उत्पन्न हुई।
- However, the most contentious move is the creation of **Polavaram district without Polavaram.**  
हालांकि, सबसे विवादास्पद कदम है **पोलावरम जिले** का निर्माण **पोलावरम** के बिना।
- Defending its earlier reorganisation, the **YSRCP** argues that it adopted a structured model based on **parliamentary constituencies**, ensuring minimum **population thresholds** of 15 to 20 lakh, at least two **revenue divisions** per district, and no fragmentation of **Assembly seats.**  
अपने पूर्व पुनर्गठन का बचाव करते हुए, **YSRCP** का तर्क है कि उसने **संसदीय निर्वाचन क्षेत्रों** पर आधारित एक संरचित मॉडल अपनाया, जिसमें प्रत्येक जिले में न्यूनतम **जनसंख्या सीमा** 15 से 20 लाख, कम से कम दो **राजस्व प्रभाग**, और **विधानसभा सीटों** का विभाजन न होना सुनिश्चित किया गया।
- Through this exercise, **revenue divisions** rose from 51 to 76, and balanced development was claimed as the central objective.  
इस अभ्यास के माध्यम से, **राजस्व प्रभाग** 51 से बढ़कर 76 हो गए, और संतुलित विकास को केंद्रीय उद्देश्य के रूप में बताया गया।
- Critics, however, argued that the **Lok Sabha-based model** was fundamentally flawed, lacked **geographical logic**, ignored **historical and cultural linkages**, and placed many **administrative units** unreasonably far from **district headquarters** (in one case, 277 km away).  
हालांकि आलोचकों का तर्क है कि **लोकसभा-आधारित मॉडल** मौलिक रूप से **दोषपूर्ण** था, इसमें **भौगोलिक तर्क** की कमी थी, **ऐतिहासिक और सांस्कृतिक संबंधों** की अनदेखी की गई, और कई **प्रशासनिक इकाइयों** को **जिला मुख्यालय** से असंगत दूरी पर रखा गया (एक मामले में 277 किमी दूर)।



- Announcing the 2025 expansion, Mr. **Naidu** said the restructuring would empower **local governance**, particularly in **tribal and drought-prone belts**, and prepare the ground for future **Assembly delimitation**.  
2025 के विस्तार की घोषणा करते हुए, श्री **नायडू** ने कहा कि पुनर्गठन **स्थानीय शासन** को सशक्त बनाएगा, विशेष रूप से **जनजातीय और सूखा प्रभावित क्षेत्रों** में, और भविष्य के **विधानसभा परिसीमन** के लिए आधार तैयार करेगा।
- Yet critics caution that the earlier restructuring promised similar outcomes but faced significant **implementation challenges**.  
फिर भी आलोचक चेतावनी देते हैं कि पहले का पुनर्गठन समान परिणामों का वादा करता था, लेकिन महत्वपूर्ण **क्रियान्वयन चुनौतियों** का सामना करना पड़ा।
- The 2025 announcement presents itself as both **expansion and correction**, responding to longstanding demands for improved **accessibility**.  
2025 की घोषणा **विस्तार और सुधार** दोनों के रूप में सामने आती है, जो बेहतर **पहुँच** की लंबे समय से चली आ रही मांगों का जवाब देती है।
- It also reflects a **political recalibration** under the current government, emphasising **regional inclusion** and **administrative rationalisation**.  
यह वर्तमान सरकार के तहत एक **राजनीतिक पुनःसंतुलन** को भी दर्शाता है, जो **क्षेत्रीय समावेशन** और **प्रशासनिक तर्कसंगतता** पर जोर देता है।
- Yet a recurring criticism is that governments seldom provide clear criteria when forming new **districts**.  
फिर भी एक दोहराया गया आलोचना यह है कि सरकारें नए **जिले** बनाने के समय स्पष्ट मानदंड शायद ही कभी प्रदान करती हैं।
- Creating **districts** is also financially and institutionally demanding.  
**जिले** बनाना भी **वित्तीय और संस्थागत रूप से चुनौतीपूर्ण** है।
- It requires establishing new **collectorates, police headquarters, zilla parishad offices, and courts**; hiring additional **administrative personnel**; separating **land, revenue, and welfare records**; and building supporting **infrastructure**.  
इसके लिए नए **कलेक्टरेट, पुलिस मुख्यालय, जिला परिषद कार्यालय और अदालतें** स्थापित करना; अतिरिक्त **प्रशासनिक कर्मियों** को नियुक्त करना; **भूमि, राजस्व और कल्याण रिकॉर्ड** अलग करना; और सहायक **बुनियादी ढांचा** तैयार करना आवश्यक है।
- Without parallel strengthening of **local self-governance bodies**, the creation of smaller **districts** risks becoming a substitute for real **decentralisation**.  
यदि समानांतर में **स्थानीय स्वशासन निकायों** को मजबूत नहीं किया गया, तो छोटे **जिलों** का निर्माण वास्तविक **विकेंद्रीकरण** का विकल्प बनने का जोखिम उठाता है।
- This raises a broader question: in an era of **digital governance**, is the proliferation of smaller **districts** still necessary for **efficiency**?  
यह एक व्यापक प्रश्न उठाता है: **डिजिटल शासन** के युग में, छोटे **जिलों** का बढ़ना क्या अब भी **कुशलता** के लिए आवश्यक है?
- Ultimately, the success of Andhra's restructuring will depend on whether **political commitment** is matched by **administrative capacity, realistic financial planning, adequate staffing, transparent digital systems, and stakeholder participation**.  
आखिरकार, आंध्र प्रदेश के पुनर्गठन की सफलता इस बात पर निर्भर करेगी कि क्या **राजनीतिक प्रतिबद्धता** का मेल **प्रशासनिक क्षमता, वास्तविक वित्तीय योजना, पर्याप्त स्टाफिंग, पारदर्शी डिजिटल प्रणाली, और हितधारक भागीदारी** से होता है।
- If these foundations are established, smaller **districts** could enhance **service delivery, improve responsiveness, and strengthen participatory governance**.  
यदि ये आधार स्थापित हैं, तो छोटे **जिले** सेवा वितरण में **सुधार, जवाबदेही में वृद्धि, और सहभागी शासन को मजबूत** कर सकते हैं।



# 'States will have to abide by terms of Samagra Shiksha to receive funds'

**GS II: Government Scheme**

NEW DELHI

Union Education Minister Dharmendra Pradhan reiterated the Centre's position that all States will have to abide by conditions laid under the Samagra Shiksha to receive funds.

Answering a question raised by Rajya Sabha MP John Brittas asking for reasons for withholding/ delay in releasing the Central share, Mr. Pradhan in a written reply said: "The release of Central share depends on the submission of the utilisation certificates, audit reports in respect of funds released earlier, physical and financial progress reports, State contributions and compliance with the scheme norms."

During the Question Hour, Mr. Brittas cited dues



Dharmendra Pradhan said the Central share depends on submission of utilisation certificates for funds released. FILE PHOTO

worth ₹1,160.52 crore since 2022-23 under the Samagra Shiksha scheme. The scheme was launched in 2018 while the National Education Policy (NEP) was launched in 2020 and the PM-Shri in 2022. He asked if the States were being compelled to accept NEP 2020 or the 2022 scheme as a condition for receiving funds under a

2018 scheme and termed it "arm-twisting".

Mr. Pradhan, responding to him, accused Mr. Brittas of "misleading" the House and said it was not a partisan policy. He said non-BJP ruled States like Himachal Pradesh, Karnataka, Punjab and Telangana were getting funds under the scheme.

The Minister said the go-

vernment was ready to release all pending dues, subject to fulfilment of the conditions of implementation of NEP.

In a supplementary question, Dravida Munnetra Kazhagam's R. Girirajan asked Mr. Pradhan on when the Centre plans to release Tamil Nadu's dues. The Minister did not directly respond to the question. He instead pointed to the Supreme Court's recent observations in response to a public interest litigation (PIL) plea, urging the Union and the Tamil Nadu governments to have talks on the issue of establishing Jawahar Navodaya Vidyalayas (JNVs) in the State.

"Tamil Nadu can't put conditions, saying this much we will implement, this much we will not implement," he said.

## 'States will have to abide by terms of Samagra Shiksha to receive funds' 'राज्यों को धन प्राप्त करने के लिए समग्र शिक्षा की शर्तों का पालन करना होगा'

- 'States will have to abide by terms of **Samagra Shiksha** to receive funds'  
'राज्यों को धन प्राप्त करने के लिए **समग्र शिक्षा** की शर्तों का पालन करना होगा'
- Union Education Minister **Dharmendra Pradhan** reiterated the Centre's position that all States will have to abide by conditions laid under the Samagra Shiksha to receive funds.  
केंद्रीय शिक्षा मंत्री **धर्मेंद्र प्रधान** ने केंद्र की यह स्थिति दोहराई कि सभी राज्यों को धन प्राप्त करने के लिए समग्र शिक्षा के तहत निर्धारित शर्तों का पालन करना होगा।
- Answering a question raised by **Rajya Sabha MP John Brittas** asking for reasons for withholding/ delay in releasing the Central share, Mr. Pradhan in a written reply said: "The release of Central share depends on the **submission of the utilisation certificates, audit reports in respect of funds released earlier, physical and financial progress reports, State contributions and compliance with the scheme norms.**"  
**राज्यसभा सांसद जॉन ब्रिट्टास** द्वारा केंद्रीय अंशधन रोकने/विलंब के कारण पूछे जाने पर श्री प्रधान ने लिखित उत्तर में कहा: "केंद्रीय अंशधन जारी करना उपयोग प्रमाणपत्र, पहले जारी धन के ऑडिट रिपोर्ट, भौतिक और वित्तीय प्रगति रिपोर्ट, राज्य के अंशदान और योजना मानदंडों के अनुपालन पर निर्भर करता है।"
- During the **Question Hour**, Mr. Brittas cited dues worth **₹1,160.52 crore** since 2022-23 under the Samagra Shiksha scheme.  
प्रश्नकाल के दौरान, श्री ब्रिट्टास ने 2022-23 से समग्र शिक्षा योजना के तहत **₹1,160.52 करोड़** बकाया राशि का उल्लेख किया।



- The scheme was launched in 2018 while the National Education Policy (NEP) was launched in 2020 and the PM-Shri in 2022.  
यह योजना 2018 में शुरू की गई थी जबकि राष्ट्रीय शिक्षा नीति (NEP) 2020 में और पीएम-श्री 2022 में शुरू किया गया था।
- He asked if the States were being compelled to accept NEP 2020 or the 2022 scheme as a condition for receiving funds under a 2018 scheme and termed it “arm-twisting”.  
उन्होंने पूछा कि क्या राज्यों को 2018 की योजना के तहत धन प्राप्त करने की शर्त के रूप में NEP 2020 या 2022 योजना स्वीकारने के लिए मजबूर किया जा रहा है और इसे “दबाव डालना” बताया।
- Mr. Pradhan, responding to him, accused Mr. Brittas of “misleading” the House and said it was not a partisan policy.  
श्री प्रधान ने जवाब देते हुए श्री ब्रिट्टास पर सदन को “गुमराह” करने का आरोप लगाया और कहा कि यह पक्षपातपूर्ण नीति नहीं है।
- He said non-BJP ruled States like Himachal Pradesh, Karnataka, Punjab and Telangana were getting funds under the scheme.  
उन्होंने कहा कि हिमाचल प्रदेश, कर्नाटक, पंजाब और तेलंगाना जैसे गैर-भाजपा शासित राज्यों को भी इस योजना के तहत धन मिल रहा है।
- The Minister said the government was ready to release all pending dues, subject to fulfilment of the conditions of implementation of NEP.  
मंत्री ने कहा कि सरकार NEP के कार्यान्वयन की शर्तों को पूरा करने पर सभी लंबित बकाया जारी करने के लिए तैयार है।
- In a supplementary question, Dravida Munnetra Kazhagam’s R. Girirajan asked Mr. Pradhan on when the Centre plans to release Tamil Nadu’s dues.  
एक पूरक प्रश्न में, द्रविड़ मुनेत्र कड़गम के आर. गिरिराजन ने श्री प्रधान से पूछा कि केंद्र तमिलनाडु के बकाया कब जारी करेगा।
- The Minister did not directly respond to the question.  
मंत्री ने प्रश्न का सीधा उत्तर नहीं दिया।
- He instead pointed to the Supreme Court’s recent observations in response to a public interest litigation (PIL) plea, urging the Union and the Tamil Nadu governments to have talks on the issue of establishing Jawahar Navodaya Vidyalayas (JNVs) in the State.  
इसके बजाय उन्होंने सुप्रीम कोर्ट की हाल की टिप्पणियों का हवाला दिया, जो एक जनहित याचिका (PIL) के जवाब में थीं, जिसमें केंद्र और तमिलनाडु सरकारों से राज्य में जवाहर नवोदय विद्यालय (JNVs) स्थापित करने के मुद्दे पर बातचीत करने का आग्रह किया गया था।
- “Tamil Nadu can’t put conditions, saying this much we will implement, this much we will not implement,” he said.  
उन्होंने कहा, “तमिलनाडु शर्तें नहीं रख सकता कि इतना लागू करेंगे और इतना लागू नहीं करेंगे।”



GS II: IR

## Gyanesh Kumar takes charge at International IDEA council

Chief Election Commissioner Gyanesh Kumar on Wednesday assumed charge as Chairman of the Council of Member States of the International Institute for Democracy and Electoral Assistance (International IDEA) for 2026. In his acceptance speech at Stockholm, Sweden, Mr. Kumar highlighted the scale of India's democratic exercise, noting that the country has over 900 million electors across 28 States and eight Union Territories. In the 2024 General Election, India witnessed a breathtaking democratic spectacle in which over 20,000 candidates from 743 political parties, including six national and 67 State parties, participated, he said.

- In the **2024 General Election**, India witnessed a breathtaking democratic spectacle in which over **20,000 candidates** from **743 political parties**, including **six national and 67 State parties**, participated, he said.  
**2024 के आम चुनाव** में, भारत ने एक रोमांचक लोकतांत्रिक दृश्य देखा जिसमें **743 राजनीतिक पार्टियों** के **20,000 से अधिक उम्मीदवार**, जिनमें **छह राष्ट्रीय और 67 राज्य पार्टियाँ** शामिल थीं, ने भाग लिया, उन्होंने कहा।

## Gyanesh Kumar takes charge at International IDEA council

**ग्यानेश कुमार ने इंटरनेशनल IDEA काउंसिल में कार्यभार संभाला**

- Gyanesh Kumar takes charge at International IDEA council  
ग्यानेश कुमार ने इंटरनेशनल IDEA काउंसिल में कार्यभार संभाला

- Chief Election Commissioner **Gyanesh Kumar** on Wednesday assumed charge as **Chairman of the Council of Member States of the International Institute for Democracy and Electoral Assistance (International IDEA)** for 2026.

मुख्य चुनाव आयुक्त **ग्यानेश कुमार** ने बुधवार को **इंटरनेशनल इंस्टीट्यूट फॉर डेमोक्रेसी एंड इलेक्टोरल असिस्टेंस (इंटरनेशनल IDEA)** के 2026 के लिए **काउंसिल ऑफ मेंबर स्टेट्स के चेयरमैन** के रूप में कार्यभार संभाला।

- In his acceptance speech at **Stockholm, Sweden**, Mr. Kumar highlighted the scale of India's democratic exercise, noting that the country has over **900 million electors** across **28 States** and **eight Union Territories**.

अपने स्वीकृति भाषण में **स्टॉकहोम, स्वीडन** में, श्री कुमार ने भारत के लोकतांत्रिक अभ्यास के पैमाने को रेखांकित किया, यह बताते हुए कि देश में **28 राज्यों और आठ केंद्र शासित प्रदेशों** में **900 मिलियन से अधिक मतदाता** हैं।

## BRUSSELS

### EU agrees deal to ban all imports of Russian gas by autumn 2027



GS II: IR

REUTERS

European Union lawmakers and member states reached a deal on Wednesday to ban all imports of Russian gas by autumn 2027, as the bloc seeks to choke off key funds feeding Moscow's war chest. "This is the dawn of a new era, the era of Europe's full energy independence from Russia," EU chief Ursula von der Leyen said. AFP

## EU agrees deal to ban all imports of Russian gas by autumn 2027

**ईयू ने सभी रूसी गैस आयात को शरद ऋतु 2027 तक प्रतिबंधित करने पर समझौता किया**

- European Union **lawmakers** and **member states** reached a deal on **Wednesday** to ban all imports of **Russian gas** by **autumn 2027**, as the **bloc** seeks to choke off key funds feeding **Moscow's war chest**.

यूरोपीय संघ के **विधायकों** और **सदस्य राज्यों** ने **बुधवार को शरद ऋतु 2027 तक सभी रूसी गैस आयात पर प्रतिबंध लगाने पर समझौता किया**, क्योंकि **ब्लॉक** मॉस्को के **युद्ध कोष** को वित्तपोषित करने वाले प्रमुख फंड को रोकना चाहता है।

- "This is the dawn of a new era, the era of **Europe's full energy independence from Russia**," EU chief **Ursula von der Leyen** said.

"यह एक नए युग की शुरुआत है, **रूस से यूरोप की पूरी ऊर्जा स्वतंत्रता का युग**," यूरोपीय संघ की प्रमुख **उर्सुला वॉन डेर लेयेन** ने कहा।



# Belgium says EU's plan to use frozen Russian assets to aid Ukraine 'risky'

GS II: IR

**Associated Press**

BRUSSELS

Belgium on Wednesday rejected a plan to use frozen Russian assets to help prop up Ukraine's economy and war effort, saying that the scheme poses major financial and legal risks.

Ukraine's budget and military needs for 2026 and 2027 are estimated to total around \$150 billion. The European Union (EU) has committed to fill the gap. It has already poured in over \$197 billion.

The biggest pot of ready funds available is through frozen Russian assets. Most of the money is held in Belgium—around \$226 billion—and outside the EU in Japan, with around \$50 billion, and the U.S., U.K. and Canada with lesser amounts.



A Ukrainian soldier fires towards Russian troops in Donetsk region. Kyiv needs around \$150 billion for defence and governance. REUTERS

The European Commission was due to make public on Wednesday details of its proposal to use the Russian money as collateral to help meet Ukraine's needs through a "reparations loan."

But Belgian Foreign Minister Maxime Prévot said that his country considers

"the option of the reparations loan the worst of all, as it is risky. It has never been done before." Russia has described the scheme as "theft."

Mr. Prévot urged the EU to borrow the money for Ukraine on international markets. "It is a well-known, a robust and a

well-established option with predictable parameters," he said.

"The reparation loans scheme entails consequential economic, financial and legal risks," he said.

Belgium fears that the Brussels-based financial clearing house holding the frozen assets, Euroclear, could take legal action if Russia challenges any use of the funds or if the move harms its image and business interests.

In essence, EU countries would lend Ukraine around \$163 billion. The money would not be seized, as Kyiv would re-fund it once Russia pays significant reparations for the massive destruction its war has caused.

Should Moscow refuse, the assets would remain frozen.

## Belgium says EU's plan to use frozen Russian assets to aid Ukraine 'risky' बेल्जियम कहता है कि यूरोपीय संघ की योजना रूसी जमे हुए संपत्ति का उपयोग यूक्रेन की मदद के लिए 'जोखिमपूर्ण' है

- Belgium on **Wednesday** rejected a plan to use frozen **Russian assets** to help prop up **Ukraine's economy** and **war effort**, saying that the scheme poses major **financial** and **legal risks**.

बेल्जियम ने बुधवार को जमे हुए रूसी संपत्ति का उपयोग यूक्रेन की अर्थव्यवस्था और युद्ध प्रयास को सहारा देने के लिए की गई योजना को खारिज कर दिया, यह कहते हुए कि यह योजना बड़े वित्तीय और कानूनी जोखिम पैदा करती है।

- Ukraine's **budget** and **military needs** for **2026** and **2027** are estimated to total around **\$150 billion**.

**2026** और **2027** के लिए यूक्रेन का **बजट** और **सैन्य आवश्यकताएं** अनुमानित रूप से लगभग **\$150 बिलियन** हैं।

- The **European Union (EU)** has committed to fill the gap. It has already poured in over **\$197 billion**.

**यूरोपीय संघ (EU)** ने इस अंतर को पूरा करने के लिए प्रतिबद्धता जताई है। इसने पहले ही **\$197 बिलियन** से अधिक राशि डाली है।

- The biggest pot of ready funds available is through frozen **Russian assets**. Most of the money is held in **Belgium**—around **\$226 billion**—and outside the EU in **Japan**, with around **\$50 billion**, and the **U.S., U.K. and Canada** with lesser amounts.



तैयार धन का सबसे बड़ा हिस्सा जमे हुए **रूसी संपत्ति** के माध्यम से उपलब्ध है। अधिकांश पैसा **बेल्जियम** में रखा गया है—लगभग **\$226 बिलियन**—और EU के बाहर **जापान** में लगभग **\$50 बिलियन**, तथा **यू.एस., यू.के. और कनाडा** में कम राशि है।

- The **European Commission** was due to make public on **Wednesday** details of its proposal to use the **Russian money** as **collateral** to help meet **Ukraine's needs** through a "**reparations loan**."  
यूरोपीय आयोग को बुधवार को अपनी प्रस्तावना का विवरण सार्वजनिक करना था जिसमें **रूसी धन** को **जमानत (collateral)** के रूप में उपयोग करके **यूक्रेन की आवश्यकताओं** को पूरा करने के लिए "**मुआवजा ऋण (reparations loan)**" का उपयोग किया जाना था।
- But Belgian **Foreign Minister Maxime Prévot** said that his country considers "the option of the **reparations loan** the worst of all, as it is risky. It has never been done before."  
लेकिन बेल्जियम के **विदेश मंत्री मैक्सिम प्रेवोट** ने कहा कि उनका देश "**मुआवजा ऋण (reparations loan)**" का विकल्प सबसे खराब है, क्योंकि यह जोखिमपूर्ण है। इसे पहले कभी लागू नहीं किया गया।"
- **Russia** has described the scheme as "theft."  
**रूस** ने इस योजना को "चोरी" के रूप में वर्णित किया है।
- Mr. Prévot urged the **EU** to borrow the money for **Ukraine** on **international markets**. "It is a well-known, robust and well-established option with predictable parameters," he said.  
श्री प्रेवोट ने **EU** से आग्रह किया कि वह **यूक्रेन** के लिए पैसा **अंतरराष्ट्रीय बाजारों** से उधार ले। "यह एक प्रसिद्ध, मजबूत और अच्छी तरह से स्थापित विकल्प है जिसमें अनुमानित मानक हैं," उन्होंने कहा।
- "The **reparation loans scheme** entails consequential **economic, financial and legal risks**," he said.  
"**मुआवजा ऋण योजना** में परिणामी **आर्थिक, वित्तीय और कानूनी जोखिम** शामिल हैं," उन्होंने कहा।
- Belgium fears that the Brussels-based financial clearing house holding the frozen assets, **Euroclear**, could take legal action if **Russia** challenges any use of the funds or if the move harms its image and **business interests**.  
बेल्जियम को डर है कि ब्रुसेल्स स्थित वित्तीय क्लियरिंग हाउस, **Euroclear**, जो जमे हुए संपत्ति को रखता है, **रूस** के द्वारा किसी भी उपयोग को चुनौती देने या अगर इस कदम से उसकी छवि और **व्यावसायिक हितों** को नुकसान पहुँचता है तो कानूनी कार्रवाई कर सकता है।
- In essence, **EU countries** would lend **Ukraine** around **\$163 billion**. The money would not be seized, as **Kyiv** would refund it once **Russia** pays significant **reparations** for the massive destruction its war has caused.  
मूल रूप से, **EU देशों** द्वारा **यूक्रेन** को लगभग **\$163 बिलियन** उधार दिए जाएंगे। यह पैसा जब्त नहीं किया जाएगा, क्योंकि **कीव (Kyiv)** इसे वापस कर देगा जब **रूस** अपने युद्ध से हुई विशाल तबाही के लिए महत्वपूर्ण **मुआवजा** का भुगतान करेगा।
- Should **Moscow** refuse, the assets would remain frozen.  
यदि **मॉस्को** इंकार करता है, तो संपत्ति जमी हुई रहेगी।

<b>GS Paper III: Economy, S&amp;T, Environment, DM, &amp;IS</b>	
<b>TOPICS COVERED</b>	<b>04_12_2025</b>
	<b>Economy</b>
1.	<b>A missing link in India's mineral mission</b> <b>भारत के खनिज मिशन में एक खोई हुई कड़ी</b>
2.	<b>Higher duties on cigarettes will be shared with States: FM</b> <b>सिगरेट पर उच्च शुल्क राज्यों के साथ साझा किए जाएंगे: वित्त मंत्री</b>



	<b>S&amp;T</b>
3.	<b>Airports witness chaos as IndiGo cancels at least 200 flights due to skewed roster</b> तिरछे रोस्टर के कारण इंडिगो द्वारा कम से कम 200 उड़ानें रद्द करने से हवाई अड्डों पर अफरा-तफरी
4.	<b>Protest against Bill to revamp Statistical Institute</b> सांख्यिकी संस्थान में सुधार के विधेयक के खिलाफ विरोध
5.	<b>Malaria parasites corkscrew through skin while finding a way to the liver</b> जिगर तक पहुंचने के दौरान मलेरिया परजीवी त्वचा के माध्यम से कॉर्कस्कू जैसे घूमते हैं
6.	<b>Why has Airbus ordered upgrades to its aircraft?</b> एयरबस ने अपने विमानों के लिए अपग्रेड क्यों आदेशित किए?
7.	<b>Why is volcanic ash a safety concern for flights?</b> वोल्केनिक राख उड़ानों के लिए सुरक्षा चिंता क्यों है?
	<b>DM</b>
8.	<b>Sting in the tail</b> अंत में झटका
	<b>IS</b>
9.	<b>Economic offenders who fled India owe ₹39,000 crores</b> भारत से फरार आर्थिक अपराधियों का बकाया ₹39,000 करोड़

<b>Economy</b>	04/12/2025
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# A missing link in India's mineral mission

GS III: Economy

**T**he Union Cabinet's new ₹7,280 crore rare-earth magnet scheme acknowledges a simple truth: digging without processing is just exporting prosperity. The new G-20 framework on critical minerals also makes value creation through refining and manufacturing its centrepiece. For India, which has reformed its mining laws but still lacks large-scale processing, this is a timely reminder. Every solar panel, electric vehicle, and wind turbine begins not on an assembly line but in a refinery, where ores are turned into battery-grade graphite, magnet-ready rare earths, or ultra-pure polysilicon. Yet almost all this processing happens outside India, increasing the vulnerability of domestic supply chains. That exposure has grown as U.S.-China trade frictions trigger new tariffs and export restrictions.

In recent years, the Mines and Minerals (Development and Regulation) Act has been amended to support domestic mining through exploration licences, national auctions, mining-associated minerals, and a national mineral exchange. These reforms help us dig, but they do not help us refine. India imports almost the entire amount of its lithium, nickel and cobalt. And the stakes extend far beyond clean energy. High-purity materials are also critical for semiconductors, telecommunications, automobiles, pharmaceuticals, and defence systems.

The midstream segment of the critical minerals value chain – processing and refining – is a global chokepoint. China still controls over 90% of global rare earths and graphite refining. Citing national security, China tightened export controls on rare earth and battery technologies earlier this year and has since expanded them even further in recent weeks. Without domestic processing, India will stay exposed to such shocks.

Hence, India must scale up its



**Sunil Kumar**

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There's a pressing need to strengthen India's critical minerals sector but more focus needs to go into the often overlooked part of the value chain – processing and refining

processing and refining capacity, starting with the minerals it already produces or recycles. The recently approved ₹1,500 crore critical minerals recycling scheme is a promising start. A recent study by the Council on Energy, Environment and Water (CEEW) shows India already mines and processes seven critical minerals – copper, graphite, silicon, tin, titanium, rare earths, and zirconium. But in each case, our refining lags behind either in scale or quality.

India can take five steps to develop critical mineral processing. **First, turn Centres of Excellence into innovation engines.** The nine Centres of Excellence under the National Critical Mineral Mission must drive applied research, specifically for producing high-purity compounds and materials aligned to industry needs. In the short term, their primary focus should be to develop processing technologies that can be implemented and operationalised at a commercial scale. Academic institutes such as IITs, NITs, industry and think tanks should work on life-cycle modelling and cost-benefit analysis for rapid technology adoption by the processing industry. What matters now is momentum to push innovative technologies from labs to commercial scale.

**Second, unlock secondary resources to recover critical minerals.** India generates more than 250 million tonnes of coal fly ash annually, containing both light and heavy rare earths. Red mud from aluminium plants holds gallium; zinc residues contain cobalt; steel slag carries vanadium. Pilot projects at CSIR and IITs show recovery is possible from fly ash and red mud. Embedding such recovery units in the proposed Critical Minerals Processing Parks would enable scale.

**Third, train and upskill a new generation of process metallurgists and technicians.** Critical minerals require

specialised hydrometallurgical and advanced refining techniques. The ₹100 crore allocation under the NCMM for skilled workforce should fund train-the-trainer programmes for existing workers, diploma-level courses, and new curricula at academic and CSIR labs. Developing such a workforce could create thousands of skilled jobs.

**Fourth, de-risk investment through demand assurance and financing tools.** The U.S.

Department of Defence's deal with the U.S.-based MP Materials, rare earth minerals and magnetic producers, combining government offtake commitments and price guarantees, offers a model. India could adapt this by turning its proposed stockpiling of critical minerals under the Mission into an active market-maker, buying from domestic producers during downturns and releasing during demand surges. Key sectors such as defence, pharmaceuticals, and electronics should be mandated to source part of their inputs domestically, while processors should be encouraged to meet stringent quality standards.

**Fifth, link mineral diplomacy to processing capacity.** India's recent overseas acquisitions are significant but focus mainly on getting access to raw ores. If India can demonstrate consistent high-purity refining across the seven minerals it already handles, it could shift global partnerships from buyer-seller deals to co-investment alliances. Critical mineral parks could serve as collaboration hubs where foreign firms co-invest and co-process.

With China tightening mineral and technology exports, the real question isn't whether India has enough mines, but whether it can master the art of turning ores into materials. Processing is the missing link that will determine if India remains a supplier of raw resources or becomes a builder of resilient and clean industries.

(With inputs by Vibhuti Chandhok. Views are personal)

**A missing link in India's mineral mission**  
भारत के खनिज मिशन में एक खोई हुई कड़ी



- The **Union Cabinet's new ₹7,280 crore rare-earth magnet scheme** acknowledges a simple truth: digging without processing is just exporting prosperity.  
केंद्रीय मंत्रिमंडल की नई ₹7,280 करोड़ की रेयर-अर्थ मैग्नेट योजना एक साधारण सच्चाई को मानती है: खनन बिना प्रसंस्करण के केवल समृद्धि का निर्यात है।
- The new **G-20 framework on critical minerals** also makes **value creation** through refining and manufacturing its centrepiece.  
नए G-20 फ्रेमवर्क ऑन क्रिटिकल मिनरल्स में भी प्रसंस्करण और निर्माण के माध्यम से मूल्य सृजन को केंद्रीय बिंदु बनाया गया है।
- For India, which has reformed its **mining laws** but still lacks large-scale processing, this is a timely reminder.  
भारत के लिए, जिसने अपने खनन कानूनों में सुधार किया है लेकिन अभी भी वृहद पैमाने पर प्रसंस्करण की कमी है, यह एक समय पर याद दिलाना है।
- Every **solar panel, electric vehicle, and wind turbine** begins not on an assembly line but in a refinery, where ores are turned into **battery-grade graphite, magnet-ready rare earths, or ultra-pure polysilicon**.  
हर सौर पैनल, इलेक्ट्रिक वाहन, और पवन टरबाइन असेंबली लाइन पर नहीं बल्कि रिफाइनरी में शुरू होता है, जहां अयस्क को बैटरी-ग्रेड ग्रेफाइट, मैग्नेट-तैयार रेयर अर्थ, या अल्ट्रा-प्योर पॉलिसिलिकॉन में बदला जाता है।
- Yet almost all this processing happens outside India, increasing the vulnerability of domestic **supply chains**.  
फिर भी यह लगभग सारा प्रसंस्करण भारत के बाहर होता है, जिससे घरेलू सप्लाई चेन की संवेदनशीलता बढ़ जाती है।
- That exposure has grown as **U.S.–China trade frictions** trigger new tariffs and export restrictions.  
यह संवेदनशीलता बढ़ गई है क्योंकि अमेरिका-चीन व्यापार तनाव नई शुल्क और निर्यात प्रतिबंध को जन्म दे रहे हैं।
- In recent years, the **Mines and Minerals (Development and Regulation) Act** has been amended to support domestic mining through **exploration licences, national auctions, mining-associated minerals, and a national mineral exchange**.  
हाल के वर्षों में, खनिज और खनन (विकास और विनियमन) अधिनियम को संशोधित किया गया है ताकि घरेलू खनन का समर्थन किया जा सके, जैसे अन्वेषण लाइसेंस, राष्ट्रीय नीलामी, खनन-संबंधित खनिज, और राष्ट्रीय खनिज एक्सचेंज।
- These reforms help us dig, but they do not help us refine.  
ये सुधार हमें खनन में मदद करते हैं, लेकिन प्रसंस्करण में मदद नहीं करते।
- India imports almost the entire amount of its **lithium, nickel, and cobalt**.  
भारत अपने लगभग पूरे लिथियम, निकल, और कोबाल्ट का आयात करता है।
- And the stakes extend far beyond **clean energy**.  
और दांव केवल स्वच्छ ऊर्जा तक सीमित नहीं हैं।
- High-purity materials are also critical for **semiconductors, telecommunications, automobiles, pharmaceuticals, and defence systems**.  
उच्च-शुद्धता सामग्री भी सेमीकंडक्टर्स, दूरसंचार, ऑटोमोबाइल, फार्मास्यूटिकल्स, और रक्षा प्रणाली के लिए महत्वपूर्ण हैं।
- The midstream segment of the critical minerals value chain — **processing and refining** — is a global **chokepoint**.  
महत्वपूर्ण खनिज मूल्य श्रृंखला का मिडस्ट्रीम खंड — प्रसंस्करण और रिफाइनिंग — एक वैश्विक बाधा बिंदु है।
- **China still controls over 90% of global rare earths and graphite refining**.  
चीन अभी भी वैश्विक रेयर अर्थ और ग्रेफाइट रिफाइनिंग का 90% नियंत्रित करता है।
- Citing **national security**, China tightened export controls on **rare earth and battery technologies** earlier this year and has since expanded them even further in recent weeks.  
राष्ट्रीय सुरक्षा का हवाला देते हुए, चीन ने इस वर्ष की शुरुआत में रेयर अर्थ और बैटरी तकनीकों पर निर्यात नियंत्रण कड़ा किया और हाल के हफ्तों में इसे और बढ़ा दिया।
- Without domestic processing, India will stay exposed to such shocks.  
घरेलू प्रसंस्करण के बिना, भारत ऐसे आघातों के लिए संवेदनशील रहेगा।



- Hence, India must scale up its **processing and refining capacity**, starting with the minerals it already produces or recycles.  
इसलिए, भारत को अपनी **प्रसंस्करण और रिफाइनिंग क्षमता** बढ़ानी चाहिए, शुरूआत उन **खनिजों** से करनी चाहिए जिन्हें वह पहले ही उत्पादित या पुनर्चक्रित करता है।
- The **recently approved ₹1,500 crore critical minerals recycling scheme** is a promising start. हाल ही में स्वीकृत ₹1,500 करोड़ की **महत्वपूर्ण खनिज पुनर्चक्रण योजना** एक **उम्मीद भरी शुरूआत** है।
- A recent study by the **Council on Energy, Environment and Water (CEEW)** shows India already mines and processes seven **critical minerals — copper, graphite, silicon, tin, titanium, rare earths, and zirconium**.  
**काउंसिल ऑन एनर्जी, एनवायरनमेंट एंड वाटर (CEEW)** के एक हालिया अध्ययन से पता चलता है कि भारत पहले से ही सात **महत्वपूर्ण खनिज — तांबा, ग्रेफाइट, सिलिकॉन, टिन, टाइटेनियम, रेयर अर्थ और जिंकोनियम** का खनन और प्रसंस्करण करता है।
- But in each case, our refining lags behind either in scale or quality. लेकिन प्रत्येक मामले में, हमारा **प्रसंस्करण** या तो **पैमाने** या **गुणवत्ता** में पीछे है।
- India can take five steps to develop **critical mineral processing**. भारत **महत्वपूर्ण खनिज प्रसंस्करण** को विकसित करने के लिए **पाँच कदम** उठा सकता है।
- First, turn Centres of Excellence into innovation engines.**  
**पहला, उत्कृष्टता केंद्रों को नवाचार इंजन में बदलें।**
- The **nine Centres of Excellence** under the **National Critical Mineral Mission** must drive **applied research**, specifically for producing **high-purity compounds and materials aligned to industry needs**.  
**राष्ट्रीय क्रिटिकल मिनेरल मिशन** के तहत नौ **उत्कृष्टता केंद्रों** को **अनुप्रयुक्त अनुसंधान** को बढ़ावा देना चाहिए, विशेष रूप से **उच्च-शुद्धता यौगिक और उद्योग आवश्यकताओं** के अनुसार **सामग्री** बनाने के लिए।
- In the short term, their primary focus should be to develop **processing technologies** that can be implemented and operationalised at a commercial scale.  
**लघु अवधि** में, उनका मुख्य ध्यान **प्रसंस्करण तकनीकों** को विकसित करना होना चाहिए जिन्हें **व्यावसायिक पैमाने** पर लागू और संचालित किया जा सके।
- Academic institutes such as IITs, NITs, industry and think tanks** should work on **life-cycle modelling and cost-benefit analysis** for rapid technology adoption by the processing industry.  
**शैक्षणिक संस्थान जैसे IITs, NITs, उद्योग और थिंक टैंक्स** को **लाइफ-सायकल मॉडलिंग और लागत-लाभ विश्लेषण** पर काम करना चाहिए ताकि **प्रसंस्करण उद्योग** में तकनीक तेजी से अपनाई जा सके।
- What matters now is **momentum** to push innovative technologies from labs to commercial scale.  
अब जो महत्वपूर्ण है वह है **गति (momentum)** ताकि **नवाचार तकनीकों** को **लैब से व्यावसायिक पैमाने** तक ले जाया जा सके।
- Second, unlock secondary resources to recover critical minerals.**  
**दूसरा, महत्वपूर्ण खनिजों की वसूली के लिए माध्यमिक संसाधनों को अनलॉक करें।**
- India generates more than 250 million tonnes of coal fly ash annually, containing both light and heavy rare earths.**  
भारत हर साल **250 मिलियन टन से अधिक कोयला फ्लाई ऐश** उत्पन्न करता है, जिसमें **हल्के और भारी रेयर अर्थ** दोनों शामिल हैं।
- Red mud from aluminium plants holds gallium; zinc residues contain cobalt; steel slag carries vanadium.**  
**एल्युमिनियम संयंत्रों का रेड मड गैलियम रखता है; जिंक अवशेष में कोबाल्ट होता है; इस्पात स्लैग में वैनेडियम होता है।**
- Pilot projects at **CSIR and IITs** show recovery is possible from **fly ash and red mud**.  
**CSIR और IITs** में पायलट परियोजनाओं से पता चलता है कि **फ्लाई ऐश और रेड मड** से वसूली संभव है।
- Embedding such recovery units in the proposed **Critical Minerals Processing Parks** would enable scale.  
ऐसे वसूली इकाइयों को प्रस्तावित **क्रिटिकल मिनेरल्स प्रोसेसिंग पार्क** में शामिल करने से **पैमाने की क्षमता** बढ़ेगी।
- Third, train and upskill a new generation of process metallurgists and technicians.**  
**तीसरा, प्रक्रिया धातुकर्मियों और तकनीशियनों की नई पीढ़ी को प्रशिक्षित और कौशल विकसित करें।**



- Critical minerals require specialised **hydrometallurgical** and advanced **refining techniques**.  
महत्वपूर्ण खनिजों को विशेषीकृत हाइड्रोमेटलर्जिकल और उन्नत रिफाइनिंग तकनीक की आवश्यकता होती है।
- The ₹100 crore allocation under the **NCMM** for skilled workforce should fund **train-the-trainer programmes** for existing workers, **diploma-level courses**, and new curricula at academic and CSIR labs.  
**NCMM** के तहत ₹100 करोड़ का आवंटन कौशलयुक्त कार्यबल के लिए मौजूदा कर्मचारियों के लिए ट्रेन-द-ट्रेन कार्यक्रम, डिप्लोमा-स्तर पाठ्यक्रम, और शैक्षणिक और **CSIR लैब** में नए पाठ्यक्रम को वित्तपोषित करना चाहिए।
- Developing such a workforce could create thousands of **skilled jobs**.  
ऐसे कार्यबल का विकास हजारों कौशलयुक्त नौकरियों का सृजन कर सकता है।
- **Fourth, de-risk investment through demand assurance and financing tools.**  
**चौथा, मांग की गारंटी और वित्तीय उपकरणों के माध्यम से निवेश का जोखिम कम करें।**
- The **U.S. Department of Defence's** deal with the U.S.-based **MP Materials**, rare earth minerals and magnetic producers, combining government offtake commitments and price guarantees, offers a model.  
**यू.एस. डिपार्टमेंट ऑफ डिफेंस** का अमेरिका स्थित **MP मटीरियल्स** के साथ समझौता, जिसमें सरकार की खरीद प्रतिबद्धताएँ और मूल्य गारंटी शामिल हैं, एक मॉडल प्रदान करता है।
- India could adapt this by turning its proposed **stockpiling of critical minerals** under the Mission into an **active market-maker**, buying from domestic producers during downturns and releasing during demand surges.  
भारत इसे अपने प्रस्तावित महत्वपूर्ण खनिजों के भंडारण को सक्रिय बाजार निर्माता में बदलकर अपन सकता है, मंदी में घरेलू उत्पादकों से खरीदना और मांग बढ़ने पर रिलीज करना।
- Key sectors such as **defence, pharmaceuticals, and electronics** should be mandated to source part of their inputs domestically, while processors should be encouraged to meet stringent **quality standards**.  
**प्रमुख क्षेत्र** जैसे रक्षा, फार्मास्यूटिकल्स और इलेक्ट्रॉनिक्स को यह निर्देशित किया जाना चाहिए कि वे अपने इनपुट का हिस्सा घरेलू रूप से प्राप्त करें, जबकि प्रसंस्करणकर्ताओं को कड़े गुणवत्ता मानक पूरा करने के लिए प्रोत्साहित किया जाना चाहिए।

#### Fifth, link mineral diplomacy to processing capacity.

#### पाँचवां, खनिज कूटनीति को प्रसंस्करण क्षमता से जोड़ें।

- India's recent overseas acquisitions are significant but focus mainly on getting access to **raw ores**.  
भारत की हाल की विदेशी अधिग्रहण महत्वपूर्ण हैं, लेकिन मुख्य रूप से कच्चे अयस्क तक पहुंच प्राप्त करने पर केंद्रित हैं।
- If India can demonstrate consistent **high-purity refining** across the seven minerals it already handles, it could shift global partnerships from buyer-seller deals to **co-investment alliances**.  
यदि भारत सात खनिजों में लगातार उच्च-शुद्धता रिफाइनिंग दिखा सकता है जिन्हें यह पहले ही संभालता है, तो यह वैश्विक साझेदारियों को खरीदार-बिक्रेता सौदे से सह-निवेश गठजोड़ में बदल सकता है।
- Critical mineral parks could serve as **collaboration hubs** where foreign firms co-invest and co-process.  
**क्रिटिकल मिनरल पार्क** ऐसे सहयोग केंद्र के रूप में कार्य कर सकते हैं जहां विदेशी कंपनियां सह-निवेश और सह-प्रसंस्करण करें।
- With China tightening mineral and technology exports, the real question isn't whether India has enough mines, but whether it can master the art of turning **ores into materials**.  
चीन के खनिज और तकनीकी निर्यात को कड़ा करने के साथ, असली सवाल यह नहीं है कि भारत के पास पर्याप्त खनिज हैं या नहीं, बल्कि यह है कि क्या यह अयस्क को सामग्री में बदलने की कला में माहिर हो सकता है।
- Processing is the **missing link** that will determine if India remains a supplier of **raw resources** or becomes a builder of **resilient and clean industries**.  
**प्रसंस्करण** वह खोई हुई कड़ी है जो तय करेगी कि भारत कच्चे संसाधनों का आपूर्तिकर्ता बना रहेगा या लचीली और स्वच्छ उद्योगों का निर्माता बन जाएगा।



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# Higher duties on cigarettes will be shared with States: FM

**GS III: Economy: Taxation**

**The Hindu Bureau**  
NEW DELHI

Finance Minister Nirmala Sitharaman on Wednesday clarified that the tax hikes she was proposing on cigarettes was not a cess but an excise duty, which would be part of the divisible pool of taxes that are shared with the States.

The Lok Sabha passed the Central Excise (Amendment) Bill, 2025 on Wednesday.

Delivering her reply to the debate on the Bill in the Lok Sabha, Ms. Sitharaman said that the duty on cigarettes had been higher in the pre-Goods and Services Tax (GST) regime. It was then reduced to a "nominal" rate under GST as cigarettes also attracted a compensation cess.

With that compensation cess set to be withdrawn soon once the government repays the interest on loans it had taken to compensate states during the pandemic period, the Centre has introduced this Bill to increase the base excise duty on cigarettes so that the tax incidence on them does not fall.

"This is not a new law, this is not an additional tax or something that the Centre is taking away," Ms. Sitharaman said.

"Many MPs here observed that this is a cess. This is not a cess, this is excise duty. Excise duty existed before GST. The amount will be redistributed to the States as per the Finance Commission's recommendations."

The Finance Minister also sought to address some



Nirmala Sitharaman

MPs' concerns that the new tax would increase the price of beedis and thereby harm the lakhs of beedi workers in the country.

"There is no change in the tax incidence on beedi," the FM clarified. "Not even a single paisa of tax has been increased."

Ms. Sitharaman also spoke about how tax rates on tobacco were increased annually in the pre-GST period, and how tobacco farmers needed to move away from growing tobacco. "Efforts have been made in the past and continue to be made to raise awareness among farmers about the harms of tobacco farming," she explained.

"Under the National Agricultural Development Scheme, the crop diversification programme has been covering 10 major tobacco-producing states—Andhra Pradesh, Bihar, Gujarat, Karnataka, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal—since 2015, and other efforts have been ongoing for decades."

She said between 2018 and 2021-22, more than 1.12 lakh acres of land were shifted away from tobacco cultivation to other crops.

मौजूद था। यह राशि वित्त आयोग की सिफारिशों के अनुसार राज्यों में पुनर्वितरित की जाएगी।"

- The Finance Minister also sought to address some MPs' concerns that the new tax would increase the price of **beedis** and thereby harm the lakhs of **beedi workers** in the country.

## Higher duties on cigarettes will be shared with States: FM

**सिगरेट पर उच्च शुल्क राज्यों के साथ साझा किए जाएंगे: वित्त मंत्री**

• Finance Minister **Nirmala Sitharaman** on **Wednesday** clarified that the tax hikes she was proposing on cigarettes was not a **cess** but an **excise duty**, which would be part of the divisible pool of taxes that are shared with the **States**.

वित्त मंत्री **निर्मला सीतारमण** ने **बुधवार** को स्पष्ट किया कि उन्होंने सिगरेट पर जो कर वृद्धि प्रस्तावित की थी वह **सेस** नहीं बल्कि **उत्पादन शुल्क (excise duty)** है, जो करों के विभाज्य हिस्से का हिस्सा होगा और राज्यों के साथ साझा किया जाएगा।

• The **Lok Sabha** passed the **Central Excise (Amendment) Bill, 2025** on **Wednesday**. **लोकसभा** ने **बुधवार** को **सेंट्रल एक्साइज (संशोधन) बिल, 2025** पास किया।

• Delivering her reply to the debate on the Bill in the **Lok Sabha**, Ms. Sitharaman said that the duty on cigarettes had been higher in the **pre-Goods and Services Tax (GST) regime**.

**लोकसभा** में बिल पर बहस का जवाब देते हुए, श्रीमती सीतारमण ने कहा कि सिगरेट पर शुल्क **पूर्व-गुड्स एंड सर्विसेज टैक्स (GST) व्यवस्था** में अधिक था।

• It was then reduced to a "nominal" rate under **GST** as cigarettes also attracted a **compensation cess**. इसके बाद इसे **GST** के तहत "सामान्य" दर पर घटा दिया गया क्योंकि सिगरेट पर **मुआवजा सेस** भी लगता था।

• With that **compensation cess** set to be withdrawn soon once the government repays the interest on loans it had taken to compensate **states** during the **pandemic period**, the **Centre** has introduced this Bill to increase the base **excise duty** on cigarettes so that the tax incidence on them does not fall.

जैसे ही सरकार **महामारी के दौरान राज्यों को मुआवजा देने के लिए लिए गए ऋण** पर ब्याज चुका देगी, उस **मुआवजा सेस** को जल्द ही वापस लिया जाएगा, और इसीलिए **केंद्र** ने सिगरेट पर मूल **उत्पादन शुल्क (excise duty)** बढ़ाने के लिए यह बिल पेश किया ताकि इन पर कर भार कम न हो।

• "This is not a new law, this is not an additional tax or something that the **Centre** is taking away," Ms. Sitharaman said.

"यह कोई नया कानून नहीं है, यह कोई अतिरिक्त कर नहीं है या ऐसा कुछ नहीं जिसे **केंद्र** ले रहा है," श्रीमती सीतारमण ने कहा।

• "Many MPs here observed that this is a **cess**. This is not a **cess**, this is **excise duty**. **Excise duty** existed before **GST**. The amount will be redistributed to the **States** as per the **Finance Commission's recommendations**."

"यहाँ कई सांसदों ने कहा कि यह एक **सेस** है। यह **सेस** नहीं है, यह **उत्पादन शुल्क (excise duty)** है। **GST** से पहले **excise duty**



वित्त मंत्री ने कुछ सांसदों की यह चिंता भी दूर करने की कोशिश की कि नया कर **बीड़ी** की कीमत बढ़ा देगा और देश में लाखों **बीड़ी मजदूरों** को नुकसान पहुंचाएगा।

- “There is no change in the tax incidence on **beedi**,” the FM clarified. “Not even a single paisa of tax has been increased.”  
“**बीड़ी** पर कर भार में कोई बदलाव नहीं है,” वित्त मंत्री ने स्पष्ट किया। “कर का एक पैसा भी बढ़ाया नहीं गया है।”
- Ms. Sitharaman also spoke about how tax rates on **tobacco** were increased annually in the **pre-GST period**, and how **tobacco farmers** needed to move away from growing **tobacco**. श्रीमती सीतारमण ने यह भी बताया कि **पूर्व-GST अवधि** में **तम्बाकू** पर कर दरें वार्षिक रूप से बढ़ाई जाती थीं, और **तम्बाकू किसान** को **तम्बाकू** की खेती से हटने की आवश्यकता थी।
- “Efforts have been made in the past and continue to be made to raise awareness among **farmers** about the harms of **tobacco farming**,” she explained.  
“**किसानों** में **तम्बाकू खेती** के नुकसान के बारे में जागरूकता बढ़ाने के प्रयास अतीत में किए गए हैं और जारी हैं,” उन्होंने बताया।
- “Under the **National Agricultural Development Scheme**, the crop diversification programme has been covering 10 major **tobacco-producing states**—**Andhra Pradesh, Bihar, Gujarat, Karnataka, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal**—since **2015**, and other efforts have been ongoing for decades.”  
“**राष्ट्रीय कृषि विकास योजना** के तहत, फसल विविधीकरण कार्यक्रम **10 प्रमुख तम्बाकू उत्पादक राज्यों**—**आंध्र प्रदेश, बिहार, गुजरात, कर्नाटक, महाराष्ट्र, ओडिशा, तमिलनाडु, तेलंगाना, उत्तर प्रदेश और पश्चिम बंगाल**—को **2015** से कवर कर रहा है, और अन्य प्रयास दशकों से जारी हैं।”
- She said between **2018** and **2021-22**, more than **1.12 lakh acres** of land were shifted away from **tobacco cultivation** to other crops.  
उन्होंने कहा कि **2018** और **2021-22** के बीच, **1.12 लाख एकड़** से अधिक भूमि को **तम्बाकू की खेती** से हटाकर अन्य फसलों में बदल दिया गया।

S&T

04/12/2025



# Airports witness chaos as IndiGo cancels at least 200 flights due to skewed roster

GS III: S&T

Jagriti Chandra  
NEW DELHI

IndiGo passengers faced chaos on Wednesday as the airline cancelled at least 200 flights and delayed several others by up to 12 hours, triggered by skewed pilot scheduling and cabin crew no-shows in Mumbai, prompting an official apology. The tipping point was reached following weeks of delays.

There was sloganeering against the airline at Delhi airport as passengers gathered at the boarding gate to protest a six-hour delay of a flight to Rajkot. The flight was scheduled to take off at 5.40 a.m. and finally departed at 11.30 a.m. There were similar scenes at other airports such as Mumbai, where passengers were forced to return after waiting for five to eight hours. For instance, the Mumbai to Patna flight scheduled to depart at 11.15 a.m. was delayed multiple times with the latest update suggesting an 8 p.m. departure.

In Bengaluru's Kempegowda International Airport, 62 IndiGo flights were cancelled for the second consecutive day. As many as 31 IndiGo flights were cancelled in Hyderabad. In Delhi, 37 flights were cancelled.

## 'Poor planning'

The crisis in pilot availability blamed by its pilots on poor planning is so severe that rostering teams have been appealing to them for the past several weeks to cancel sick leave and the management has even offered to pay 1.5 times the salary to those who forego their privilege leave. But this has not helped matters and the airline was forced



Flyers fret: Passengers in Mumbai were put to great hardship with massive delays of upto 12 hours. SPECIAL ARRANGEMENT

## Last-minute ticket fare goes up to ₹1.3 lakh

Siddharth Kumar Singh  
HYDERABAD

A last-minute Air India ticket from Hyderabad to Bhopal touched ₹1.3 lakh on Wednesday as widespread IndiGo cancellations at Hyderabad airport pushed passengers towards the few flights still operating on schedule and drove fares sharply upward.

The high fare appeared on a late-night Air India service routed through

Mumbai and Delhi. The journey, which was scheduled to take about nine hours and arrive in Bhopal on Thursday morning, was listed at ₹1.03 lakh fare for economy, slightly higher for premium economy, and ₹1.3 lakh for a business class seat. The airline's website also showed that only one seat was left at this fare.

FULL REPORT  
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to cancel 200 flights on Wednesday and 130 flights on Tuesday, pilots were informed.

The crisis was triggered by the full implementation of the rest and duty norms for pilots from November 1, which was delayed by the government by a year to help airlines plan their crew requirement as they had warned of widespread flight cancellations.

The implementation came only after pilot bodies approached the Delhi

High Court and obtained an order in April 2025.

In a press statement the airline acknowledged this was among "a multitude of unforeseen operational challenges" that resulting in "significant disruption across the network" over the past two days for which it apologised to its customers.

This had a "compounding impact on our operations" in a way the airline had not anticipated, IndiGo said.

multiple times with the latest update suggesting an 8 p.m. departure.

उदाहरण के लिए, मुंबई से पटना जाने वाली उड़ान जो 11.15 a.m. पर प्रस्थान करने वाली थी, कई बार विलंबित हुई और ताज़ा अपडेट में 8 p.m. के प्रस्थान का संकेत दिया गया।

- In Bengaluru's Kempegowda International Airport, 62 IndiGo flights were cancelled for the second consecutive day.

बैंगलुरु के केम्पेगोड़ा अंतरराष्ट्रीय हवाई अड्डे पर लगातार दूसरे दिन 62 इंडिगो उड़ानें रद्द की गईं।

## Airports witness chaos as IndiGo cancels at least 200 flights due to skewed roster

तिरछे रोस्टर के कारण इंडिगो द्वारा कम से कम 200 उड़ानें रद्द करने से हवाई अड्डों पर अफरा-तफरी

- Airports witness chaos as IndiGo cancels at least 200 flights due to skewed roster तिरछे रोस्टर के कारण इंडिगो द्वारा कम से कम 200 उड़ानें रद्द करने से हवाई अड्डों पर अफरा-तफरी

• IndiGo passengers faced chaos on Wednesday as the airline cancelled at least 200 flights and delayed several others by up to 12 hours, triggered by skewed pilot scheduling and cabin crew no-shows in Mumbai, prompting an official apology.

बुधवार को इंडिगो यात्रियों को अफरा-तफरी का सामना करना पड़ा क्योंकि एयरलाइन ने कम से कम 200 उड़ानें रद्द कर दीं और कई अन्य उड़ानों में 12 घंटे तक की देरी हुई, जिसका कारण मुंबई में तिरछी पायलट शेड्यूलिंग और केबिन कू के न आने की घटनाएँ थीं, जिससे आधिकारिक माफी जारी करनी पड़ी।

- The tipping point was reached following weeks of delays.

कई हफ्तों की देरी के बाद स्थिति चरम पर पहुंच गई।

- There was sloganeering against the airline at Delhi airport as passengers gathered at the boarding gate to protest a six-hour delay of a flight to Rajkot.

दिल्ली हवाई अड्डे पर एयरलाइन के खिलाफ नारेबाजी हुई क्योंकि यात्री राजकोट जाने वाली उड़ान में छह घंटे की देरी का विरोध करने के लिए बोर्डिंग गेट पर इकट्ठा हो गए।

- The flight was scheduled to take off at 5.40 a.m. and finally departed at 11.30 a.m.

उड़ान 5.40 a.m. पर उड़ान भरने वाली थी और अंततः 11.30 a.m. पर रवाना हुई।

- There were similar scenes at other airports such as Mumbai, where passengers were forced to return after waiting for five to eight hours.

अन्य हवाई अड्डों जैसे मुंबई में भी ऐसे ही दृश्य देखने को मिले, जहाँ यात्रियों को पाँच से आठ घंटे इंतजार करने के बाद वापस लौटना पड़ा।

- For instance, the Mumbai to Patna flight scheduled to depart at 11.15 a.m. was delayed



- As many as **31 IndiGo flights** were cancelled in **Hyderabad**.  
हैदराबाद में **31 इंडिगो उड़ानें** रद्द की गईं।
- In **Delhi**, **37 flights** were cancelled.  
दिल्ली में **37 उड़ानें** रद्द की गईं।

### ‘Poor planning’ ‘खराब योजना’

- The crisis in pilot availability blamed by its pilots on **poor planning** is so severe that rostering teams have been appealing to them for the past several weeks to cancel sick leave and the management has even offered to pay **1.5 times** the salary to those who forego their privilege leave.  
पायलट उपलब्धता में संकट, जिसे पायलटों ने **खराब योजना** पर दोष दिया, इतना गंभीर है कि रोस्टरिंग टीम पिछले कई हफ्तों से उनसे बीमार अवकाश रद्द करने की अपील कर रही है और प्रबंधन ने तो यहां तक प्रस्ताव दिया है कि जो पायलट अपने प्रिविलेज लीव छोड़ दें, उन्हें **1.5 गुना** वेतन दिया जाएगा।
- But this has not helped matters and the airline was forced to cancel **200 flights** on Wednesday and **130 flights** on Tuesday, pilots were informed.  
लेकिन इससे स्थिति में सुधार नहीं हुआ और पायलटों को बताया गया कि एयरलाइन को बुधवार को **200 उड़ानें** और मंगलवार को **130 उड़ानें** रद्द करनी पड़ीं।
- The crisis was triggered by the full implementation of the rest and duty norms for pilots from **November 1**, which was delayed by the government by a year to help airlines plan their crew requirement as they had warned of widespread flight cancellations.  
यह संकट **1 नवंबर** से पायलटों के लिए विश्राम और ड्यूटी मानकों के पूर्ण कार्यान्वयन के कारण उत्पन्न हुआ, जिसे सरकार ने एक वर्ष के लिए स्थगित किया था ताकि एयरलाइंस अपने कू की आवश्यकता की योजना बना सकें, क्योंकि उन्होंने व्यापक उड़ान रद्द होने की चेतावनी दी थी।
- The implementation came only after pilot bodies approached the **Delhi High Court** and obtained an order in **April 2025**.  
कार्यान्वयन तभी हुआ जब पायलट संगठनों ने **दिल्ली हाई कोर्ट** का दरवाजा खटखटाया और **अप्रैल 2025** में आदेश प्राप्त किया।
- In a press statement the airline acknowledged this was among “a multitude of unforeseen operational challenges” that resulted in “significant disruption across the network” over the past two days for which it apologised to its customers.  
एक प्रेस बयान में एयरलाइन ने स्वीकार किया कि यह “कई अप्रत्याशित संचालन संबंधी चुनौतियों” में से एक थी, जिसके कारण पिछले दो दिनों में “नेटवर्क में महत्वपूर्ण व्यवधान” उत्पन्न हुआ, जिसके लिए उसने अपने ग्राहकों से माफी मांगी।
- This had a “compounding impact on our operations” in a way the airline had not anticipated, IndiGo said.  
इंडिगो ने कहा कि इसका हमारे संचालन पर “संयुक्त प्रभाव” पड़ा, जिसकी एयरलाइन ने उम्मीद नहीं की थी।



# Protest against Bill to revamp Statistical Institute

**GS III: S&T**  
**Jacob Koshy**  
NEW DELHI

More than 1,500 academics have expressed grave concerns and held demonstrations in Kolkata to protest a Union government plan to repeal the Indian Statistical Institute (ISI) Act, 1959 and replace it with a Bill that, opponents say, will significantly alter the functioning of the institute "severely stripping it of its academic autonomy".

The Kolkata-based institute, founded by P.C. Mahalanobis and considered the gold standard of statistical research in India, is an institution that has pioneered novel approaches to population surveys and



The Kolkata-based Indian Statistical Institute is considered the gold standard of statistical research in the country. FILE PHOTO

methods of statistical analysis. It is an Institution of National Importance, and offers undergraduate and postgraduate degree programmes in statistics, mathematics, quantitative economics, computer

science, library and information science, cryptology and security, quality management science and operations research.

With about 1,200 students across its centres, it plays a key role in advancing

leadership in the statistical sciences and allied fields. It has centres in other parts of India.

## Written appeal

The petitioners, in a written appeal to Rao Inderjit Singh, Minister of State, Ministry of Statistics and Implementation, have said that the proposed move "...disturbs the spirit of cooperative federalism" and "violates [the] basic spirit of the agreement between [the] Society and the government".

The petition was drafted on November 12 but has not been reported about yet.

They argue that changes had been introduced without discussion with

the faculty, and there had been no explanation as to why the current bylaws and governance framework required replacement.

The petitioners further warn that the Bill severely undermines academic autonomy as it enables the Board of Governors to override the decisions of the Academic Council, the current statutory authority on academic matters.

Reducing this body of Professors and faculty representatives to a mere advisory group is seen as a direct threat to academic freedom. Concerns have also been raised over the potential disruption of the institute's identity and heritage.

## Protest against Bill to revamp Statistical Institute सांख्यिकी संस्थान में सुधार के विधेयक के खिलाफ विरोध

- Protest against Bill to revamp Statistical Institute सांख्यिकी संस्थान में सुधार के विधेयक के खिलाफ विरोध
- More than 1,500 academics have expressed grave concerns and held demonstrations in Kolkata to protest a Union government plan to repeal the **Indian Statistical Institute (ISI) Act, 1959** and replace it with a Bill that, opponents say, will significantly alter the functioning of the institute "severely stripping it of its **academic autonomy**".  
1,500 से अधिक अकादमिकों ने गंभीर चिंताएँ व्यक्त की हैं और कोलकाता में प्रदर्शन किए हैं ताकि केंद्र सरकार की योजना के विरोध में कि **भारतीय सांख्यिकी संस्थान (ISI) अधिनियम, 1959** को रद्द कर इसे एक नए विधेयक से बदल दिया जाए, जिसके बारे में विरोधियों का कहना है कि इससे संस्थान के कामकाज में बड़ा बदलाव आएगा और इसकी **शैक्षणिक स्वायत्तता** बुरी तरह प्रभावित होगी।
- The Kolkata-based institute, founded by **P.C. Mahalanobis**, considered the gold standard of statistical research in India, is an Institution of National Importance, and offers undergraduate and postgraduate degree programmes in statistics, mathematics, quantitative economics, computer science, library and information science, cryptology and security, quality management science and operations research.  
कोलकाता स्थित यह संस्थान, जिसकी स्थापना **पी.सी. महालनोबिस** ने की थी और जिसे भारत में सांख्यिकीय शोध का स्वर्ण मानक माना जाता है, एक राष्ट्रीय महत्व का संस्थान है, और यह सांख्यिकी, गणित, मात्रात्मक अर्थशास्त्र, कंप्यूटर विज्ञान, पुस्तकालय एवं सूचना विज्ञान, क्रिप्टोलॉजी और सुरक्षा, गुणवत्ता प्रबंधन विज्ञान और संचालन अनुसंधान में स्नातक और स्नातकोत्तर कार्यक्रम प्रदान करता है।
- With about **1,200 students** across its centres, it plays a key role in advancing leadership in the statistical sciences and allied fields. It has centres in other parts of India.  
अपने विभिन्न केंद्रों में लगभग **1,200 छात्रों** के साथ, यह संस्थान सांख्यिकीय विज्ञान और संबंधित क्षेत्रों में नेतृत्व को आगे बढ़ाने में एक महत्वपूर्ण भूमिका निभाता है। इसके केंद्र भारत के अन्य हिस्सों में भी हैं।

## Written appeal लिखित अपील

- The petitioners, in a written appeal to **Rao Inderjit Singh**, Minister of State, Ministry of Statistics and Implementation, have said that the proposed move "...disturbs the spirit of



**cooperative federalism**” and “violates [the] basic spirit of the agreement between [the] Society and the government”.

याचिकाकर्ताओं ने **राव इंदरजीत सिंह**, राज्य मंत्री, सांख्यिकी और कार्यक्रम क्रियान्वयन मंत्रालय को एक लिखित अपील में कहा है कि यह प्रस्तावित कदम “**सहकारी संघवाद** की भावना को बाधित करता है” और “समाज और सरकार के बीच हुए समझौते की मूल भावना का उल्लंघन करता है।”

- The petition was drafted on **November 12** but has not been reported about yet.  
यह याचिका **12 नवंबर** को तैयार की गई थी लेकिन इसके बारे में अभी तक कोई रिपोर्ट नहीं आई है।
- They argue that changes had been introduced without discussion with the faculty, and there had been no explanation as to why the current bylaws and governance framework required replacement.

उनका कहना है कि इन बदलावों को संकाय से चर्चा किए बिना लागू किया गया और इस बात का कोई स्पष्टीकरण नहीं दिया गया कि वर्तमान उपविधियों और प्रशासनिक ढाँचे को बदलने की आवश्यकता क्यों पड़ी।

- The petitioners further warn that the Bill severely undermines **academic autonomy** as it enables the **Board of Governors** to override the decisions of the **Academic Council**, the current statutory authority on academic matters.

याचिकाकर्ताओं ने आगे चेतावनी दी कि यह विधेयक **शैक्षणिक स्वायत्तता** को गंभीर रूप से कमजोर करता है क्योंकि यह **गवर्नर्स बोर्ड** को **अकादमिक परिषद** — जो शैक्षणिक मामलों की मौजूदा वैधानिक प्राधिकरण है — के निर्णयों को निरस्त करने की शक्ति प्रदान करता है।

- Reducing this body of Professors and faculty representatives to a mere advisory group is seen as a direct threat to **academic freedom**. Concerns have also been raised over the potential disruption of the institute’s identity and heritage.

प्रोफेसरों और संकाय प्रतिनिधियों की इस संस्था को मात्र एक सलाहकार समूह में बदलना **शैक्षणिक स्वतंत्रता** के लिए सीधा खतरा माना जा रहा है। संस्थान की पहचान और विरासत को संभावित रूप से प्रभावित करने को लेकर भी चिंताएँ उठाई गई हैं।

PATRIOTIC



# Malaria parasites corkscrew through skin while finding a way to the liver

Malaria sporozoites injected into the skin have to cover hundreds of micrometres to find a capillary that leads them to the liver. Geometric models had hinted that the distance across which a parasite makes a turn matches the radius of small blood vessels, making it easier to loop around them

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Vasudevan Mukunth

**H**elical paths are everywhere in the microscopic realm. Many bacteria and parasites don't simply swim or glide in straight lines. In three dimensions, they trace corkscrew-like tracks through their surroundings. Malaria parasites, for example, glide through soft 3D gels and, in the skin of a bitten host, on paths that look like stretched springs.

For any such organism, the main challenge is noise. Random bursts of energy from their environment and fluctuations in their own force-generating machinery constantly try to twist it off course. Classic work on *Escherichia coli* bacteria has shown that a bacterium can lose its orientation within about a second because of the rotational diffusion, i.e. collisions with surrounding molecules that slowly yet surely randomise its direction.

Yet malaria parasites and other similar microorganisms must stay roughly on track for tens of seconds or more if they're to find nutrients and – in the parasite's case – a blood vessel.

## Do the twist

Earlier physical models typically described such microorganisms as self-propelled 'beads' buffeted by random noise. These models were mostly two-dimensional; sometimes they added a simple, constant torque to make the beads circle around. However, they didn't fully treat 3D helical motion in the presence of noise that had a memory, which is to say noise whose present value depends on its recent past. At the same time, geometry-based work on malaria parasites had shown how their curved, rod-like shape and flexibility helped them loop around obstacles and structures like blood vessels, but without describing how they could move that way in detail.

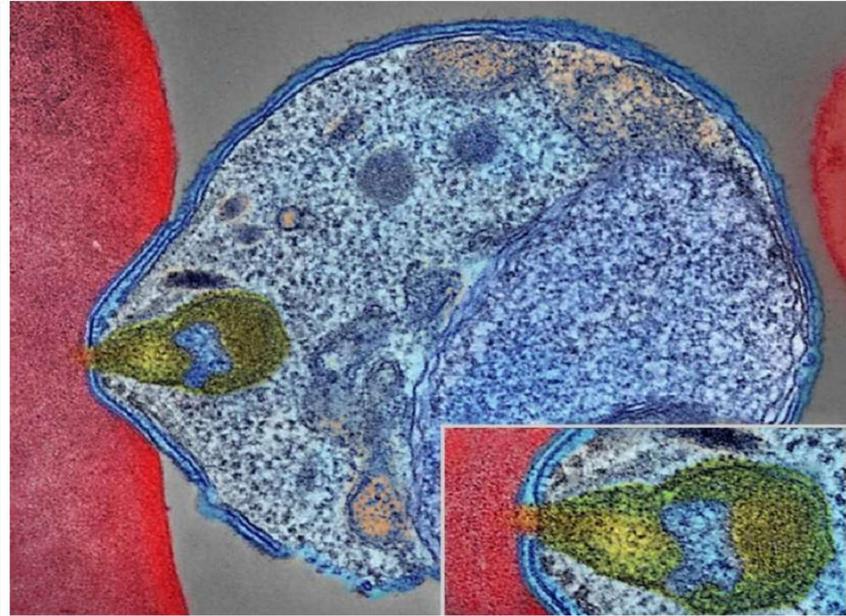
A new study by Heidelberg University researchers may have bridged this gap. They observed malaria parasites gliding through synthetic hydrogels and then reconstructed their paths using a model, publishing their findings in *Nature Physics* on November 24.

"Our new investigations show that malaria parasites move almost exclusively on right-handed helices in 3D environments," Ulrich Schwarz, study coauthor and head of the Physics of Complex Biosystems group at the Institute for Theoretical Physics, Heidelberg University, said in a release.

From the data, the team found changes happening across two time scales: one at around 20s and another at around 100s. The 20s matched the duration of one helical turn and in that time the parasite's internal drive kept pushing in roughly the same way. The 100s was how long the axis of the helix continued to point in one direction.

## When loopy is better

Malaria sporozoites injected into human skin have to cover hundreds of micrometres to find a capillary that leads them to the liver. Older geometric models had already hinted that the natural distance across which a parasite makes a turn roughly matches the radius of small blood vessels, making it easier to loop around them. The new work has added a complementary question to this picture: given the noisy nature of the parasite's



A coloured electron micrograph showing a malaria parasite (blue) attaching to a human red blood cell. The inset shows a detail of the attachment point at higher magnification. NIAID

internal mechanism, can following a helical path actually help it travel farther than a non-looping microorganism moving at the same speed?

The study team built a 3D mathematical model of a chiral active particle, meaning a bead that tends to twist around in a fixed sense as it moves. The particle had a constant forward speed in its own frame of reference and an angular velocity that would, in the absence of noise, make it trace a perfect helix.

The work's novelty lay in how the team treated the rotational noise. Instead of adding white noise, the authors described the angular velocity with an Ornstein-Uhlenbeck (OU) process. Here, the noise is "pulled back" towards a preferred value with a certain relaxation time. This produced "coloured noise," i.e. not just white noise but noise that was partly predictable, mimicking the slowly varying internal processes within the parasite's body. This model's predictions of the bead's average position and its displacement matched those of the parasites moving through the hydrogel.

## Radius and pitch

Importantly, the authors found that in a 3D space and for a reasonable level of noise, a bead moving along a helical path could move a larger distance over more time than a bead travelling straight at the same speed. That is, given enough time, the helix could be "straighter than a straight line" in terms of how far the microorganism spreads out from its origin. This behaviour differed from what many previous models had predicted.

The best-fit parameters of the new model also indicated helical paths with a pitch (the distance between two consecutive turns of the helix) of about 13



Our new investigations show that malaria parasites move almost exclusively on right-handed helices in 3D environments

**ULRICH SCHWARZ**  
Institute for Theoretical Physics, Heidelberg University

micrometres and a radius of about 3 micrometres. Both values fell well within previously reported ranges for these parasites. The shapes of the paths simulated using these parameters also resembled the ones the authors actually measured.

Taken together, the results suggest helical motion isn't just a geometric quirk but a robust strategy for microorganisms like the malaria parasite to travel efficiently in noisy spaces. For a parasite whose internal "engine" fluctuated on the same time scale as its turns, its rotating path could also average out those fluctuations and keep the overall direction of motion more stable.

The conclusion fits with earlier work on sperm cells and algae, where researchers had found helical swimming could help the cells move reliably in the presence of chemical gradients, despite strong noise in curvature and torsion. The new conclusion may also complement geometric models of malaria parasites that have emphasised the importance of their natural curvature and flexibility to help them stick to blood vessels of a comparable radius.

## What goes around...

After a mosquito bite, only a small fraction of the sporozoites need to reach a

capillary for the infection to succeed. And evolution seems to have figured the best way to ensure each parasite covers more ground before losing direction, without also requiring precise control, is to have helical motion with "coloured noise."

"We suspect that this chirality developed during evolution to allow the pathogen to switch between the different tissue compartments in the host body quickly and always in the same way," study coauthor and Heidelberg University professor of integrative parasitology Friedrich Frischknecht said in a release.

Beyond malaria, the model could apply to other microscopic swimmers such as certain algae and colonial choanoflagellates, whose helical paths and noisy propulsion scientists have already documented. The authors suggested the model could also inspire designs for artificial micro and nanobots in medicine: by engineering a controlled rotational component and appropriate internal time scales, engineers could build small devices that navigate complex tissues more effectively than simply moving in a straight line.

A 2014 study by some members of the same team behind the new study treated the sporozoites as flexible rods interacting with obstacles. Subsequent models linked the sporozoites' shape with their ability to glide across certain surfaces. The new model seems to have added the missing ingredient: internal "coloured noise". What next? The authors concluded their paper saying they'd like to connect the timing of internal fluctuations to how organisms move, and then understand how those connections are shaped by where they live and how evolution has honed them.

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## Malaria parasites corkscrew through skin while finding a way to the liver जिगर तक पहुंचने के दौरान मलेरिया परजीवी त्वचा के माध्यम से कॉर्कस्कू जैसे घूमते हैं

- Malaria parasites corkscrew through skin while finding a way to the liver  
जिगर तक पहुंचने का रास्ता ँढ़ते समय मलेरिया परजीवी त्वचा के माध्यम से कॉर्कस्कू जैसी गति करते हैं
- Malaria sporozoites injected into the skin have to cover hundreds of micrometres to find a capillary that leads them to the liver.  
त्वचा में इंजेक्ट किए गए **मलेरिया स्पोरोज़ोइट्स** को जिगर तक ले जाने वाली केशिका ँढ़ने के लिए सैकड़ों माइक्रोमीटर की दूरी तय करनी पड़ती है।
- Geometric models had hinted that the distance across which a parasite makes a turn matches the radius of small blood vessels, making it easier to loop around them  
ज्यामितीय मॉडलों ने संकेत दिया था कि जिस दूरी पर परजीवी मुड़ता है, वह **छोटी रक्त वाहिकाओं** के त्रिज्या के अनुरूप होती है, जिससे उनके चारों ओर घूमना आसान हो जाता है।
- Helical paths are everywhere in the microscopic realm.  
सूक्ष्म जगत में **हेलिकल पथ** हर जगह पाए जाते हैं।
- Many bacteria and parasites don't simply swim or glide in straight lines.  
कई बैक्टीरिया और परजीवी सीधे रेखाओं में तैरते या फिसलते नहीं हैं।
- In three dimensions, they trace corkscrew-like tracks through their surroundings.  
तीन आयामों में वे अपने परिवेश में **कॉर्कस्कू जैसे** पथ बनाते हैं।
- Malaria parasites, for example, glide through soft 3D gels and, in the skin of a bitten host, on paths that look like stretched springs.  
उदाहरण के लिए, मलेरिया परजीवी मुलायम **3D जैल** में और काटे गए मेज़बान की त्वचा में **खींचे हुए स्प्रिंग** जैसे पथों पर फिसलते हैं।
- For any such organism, the main challenge is noise.  
ऐसे किसी भी जीव के लिए मुख्य चुनौती **शोर (noise)** है।
- Random bursts of energy from their environment and fluctuations in their own force-generating machinery constantly try to twist it of course.  
पर्यावरण से आने वाले ऊर्जा के यादृच्छिक विस्फोट और अपनी ही शक्ति-उत्पादक प्रणाली में होने वाले उतार-चढ़ाव लगातार उन्हें मार्ग से हटाने की कोशिश करते हैं।
- Classic work on **Escherichia coli** bacteria has shown that a bacterium can lose its orientation within about a second because of the rotational diffusion, i.e. collisions with surrounding molecules that slowly yet surely randomise its direction.  
**एस्चेरिचिया कोलाई (E. coli)** पर क्लासिक शोध ने दिखाया है कि एक बैक्टीरिया लगभग एक सेकंड में अपना दिशा-बोध खो सकता है, क्योंकि **रोटेशनल डिफ्यूज़न** यानी आसपास के अणुओं से टकराव उसकी दिशा को यादृच्छिक बना देता है।
- Yet malaria parasites and other similar microorganisms must stay roughly on track for tens of seconds or more if they're to find nutrients and — in the parasite's case — a blood vessel.  
फिर भी **मलेरिया परजीवी** और अन्य सूक्ष्मजीवों को पोषक तत्व ँढ़ने और परजीवी के मामले में रक्त वाहिका खोजने के लिए **कई सेकंडों** तक अपने मार्ग पर बने रहना पड़ता है।

### Do the twist घूमने की प्रक्रिया

- Earlier physical models typically described such microorganisms as self-propelled 'beads' by feted by random noise.  
पहले के भौतिक मॉडल ऐसे सूक्ष्मजीवों को स्वयं-चालित **'मणि (beads)'** के रूप में वर्णित करते थे जो यादृच्छिक शोर से प्रभावित होते हैं।
- These models were mostly two-dimensional; sometimes they added a simple, constant torque to make the beads circle around.  
ये मॉडल ज्यादातर **दो-आयामी** थे; कभी-कभी इनमें मोतियों को घुमाने के लिए एक स्थिर टॉर्क भी जोड़ा जाता था।
- However, they didn't fully treat 3D helical motion in the presence of noise that had a memory, which is to say noise whose present value depends on its recent past.  
हालांकि, ये मॉडल स्मृति-युक्त शोर की स्थिति में **3D हेलिकल गति** को पूरी तरह नहीं समझा पाए — यानी ऐसा शोर जिसका वर्तमान मूल्य उसके पिछले मूल्यों पर निर्भर करता है।



- At the same time, geometry-based work on malaria parasites had shown how their curved, rod-like shape and flexibility helped them loop around obstacles and structures like blood vessels, but without describing how they could move that way in detail.  
इस बीच, मलेरिया परजीवी पर आधारित ज्यामितीय शोध ने दिखाया था कि उनकी वक्र छड़ी जैसी आकृति और लचीलापन उन्हें रक्त वाहिकाओं जैसी संरचनाओं के चारों ओर घूमने में मदद करता है, पर यह विस्तार से नहीं बताया गया था कि वे ऐसा कैसे करते हैं।
- A new study by **Heidelberg University** researchers may have bridged this gap.  
**हाइडेलबर्ग विश्वविद्यालय** के शोधकर्ताओं के एक नए अध्ययन ने संभवतः इस अंतर को पाट दिया है।
- They observed malaria parasites gliding through synthetic hydrogels and then reconstructed their paths using a model, publishing their findings in **Nature Physics** on **November 24**.  
उन्होंने मलेरिया परजीवियों को **सिंथेटिक हाइड्रोजेल** में फिसलते हुए देखा और फिर एक मॉडल के जरिए उनके पथों का पुनर्निर्माण किया, और अपने निष्कर्ष **24 नवंबर** को **नेचर फिज़िक्स** में प्रकाशित किए।
- “Our new investigations show that malaria parasites move almost exclusively on **right-handed helices** in 3D environments,” Ulrich Schwarz, study coauthor and head of the Physics of Complex Biosystems group at the Institute for Theoretical Physics, Heidelberg University, said in a release.  
“हमारे नए अध्ययनों से पता चलता है कि मलेरिया परजीवी **दाएं-हाथी हेलिक्स** में 3D वातावरण में चलते हैं,” अध्ययन के सह-लेखक **उलरिच श्वार्ज़** ने कहा।
- From the data, the team found changes happening across two time scales: one at around **20s** and another at around **100s**.  
डेटा से पता चला कि दो समय-सीमाओं पर बदलाव होते हैं: एक लगभग **20 सेकंड** पर और दूसरा लगभग **100 सेकंड** पर।
- The 20s matched the duration of one helical turn and in that time the parasite’s internal drive kept pushing in roughly the same way.  
20 सेकंड एक हेलिकल घुमाव की अवधि के समान था और इस समय में परजीवी की आंतरिक शक्ति लगभग समान दिशा में धकेलती रहती थी।
- The 100s was how long the axis of the helix continued to point in one direction.  
100 सेकंड वह समय था जब तक **हेलिक्स की धुरी** एक ही दिशा में इंगित करती रहती थी।

### When loopy is better जब घुमाव बेहतर होता है

- Malaria sporozoites injected into human skin have to cover hundreds of micrometres to find a capillary that leads them to the liver.  
मानव त्वचा में इंजेक्ट किए गए **मलेरिया स्पोरोज़ोइट्स** को जिगर तक ले जाने वाली केशिका ढूँढने के लिए सैकड़ों माइक्रोमीटर तय करने पड़ते हैं।
- Older geometric models had already hinted that the natural distance across which a parasite makes a turn roughly matches the radius of small blood vessels, making it easier to loop around them.  
पुराने ज्यामितीय मॉडल संकेत देते थे कि परजीवी द्वारा मोड़ लेने की प्राकृतिक दूरी **छोटी रक्त वाहिकाओं के त्रिज्या** के समान होती है।
- The new work has added a complementary question to this picture: given the noisy nature of the parasite’s internal mechanism, can following a helical path actually help it travel farther than a non-looping microorganism moving at the same speed?  
नए शोध ने एक नया प्रश्न जोड़ा है: परजीवी की शोर-युक्त आंतरिक प्रणाली को देखते हुए, क्या **हेलिकल पथ** अपनाते से यह समान गति वाले बिना घूमने वाले सूक्ष्मजीवों की तुलना में अधिक दूरी तय कर सकता है?
- The study team built a 3D mathematical model of a **chiral active particle**, meaning a bead that tends to twist around in a fixed sense as it moves.  
अध्ययन टीम ने एक **काइरल सक्रिय कण** का 3D गणितीय मॉडल बनाया — यानी ऐसा मोती जो चलते समय निश्चित दिशा में घूमने की प्रवृत्ति रखता है।
- The particle had a constant forward speed in its own frame of reference and an angular velocity that would, in the absence of noise, make it trace a perfect helix.  
कण की अपनी संदर्भ-फ्रेम में गति स्थिर थी और कोणीय वेग ऐसा था कि यदि शोर न हो तो वह एक **पूर्ण हेलिक्स** बनाता।



- The work's novelty lay in how the team treated the rotational noise. इस काम की नवीनता इस बात में थी कि टीम ने **घूर्णन शोर** को कैसे संभाला।
- Instead of adding white noise, the authors described the angular velocity with an **Ornstein-Uhlenbeck (OU) process**. व्हाइट नॉइज़ जोड़ने के बजाय, लेखकों ने कोणीय वेग को **ऑर्नस्टीन-उहलेनबेक (OU) प्रक्रिया** से वर्णित किया।
- Here, the noise is "pulled back" towards a preferred value with a certain relaxation time. इसमें शोर को एक **विशिष्ट विश्राम-समय** के साथ एक पसंदीदा मान की ओर "खींचा" जाता है।
- This produced **coloured noise**, i.e. not just white noise but noise that was partly predictable, mimicking the slowly varying internal processes within the parasite's body. इससे **रंगा हुआ (coloured) शोर** उत्पन्न हुआ — यानी ऐसा शोर जो आंशिक रूप से पूर्वानुमेय था और परजीवी के भीतर की **धीमी आंतरिक प्रक्रियाओं** की नकल करता है।
- This model's predictions of the bead's average position and its displacement matched those of the parasites moving through the hydrogel. इस मॉडल द्वारा अनुमानित औसत स्थिति और विस्थापन **हाइड्रोजेल** में चलते परजीवियों से मेल खाते थे।

### Radius and pitch त्रिज्या और पिच

- Importantly, the authors found that in a 3D space and for a reasonable level of noise, a bead moving along a helical path could move a larger distance over more time than a bead travelling straight at the same speed. महत्वपूर्ण रूप से, लेखकों ने पाया कि **3D स्थान** में और उचित स्तर के शोर पर, हेलिकल पथ पर चलने वाला कण समान गति से सीधे चलने वाले कण की तुलना में **अधिक दूरी** तय कर सकता है।
- That is, given enough time, the helix could be "straighter than a straight line" in terms of how far the microorganism spreads out from its origin. अर्थात् पर्याप्त समय मिलने पर, **हेलिक्स** उत्पत्ति से दूर फैलाव के संदर्भ में **सीधी रेखा से भी अधिक सीधी** साबित हो सकती है।
- This behaviour differed from what many previous models had predicted. यह व्यवहार कई पिछले मॉडलों की भविष्यवाणियों से भिन्न था।
- The best-fit parameters of the new model also indicated helical paths with a pitch (the distance between two consecutive turns of the helix) of about 13 नए मॉडल के सर्वोत्तम पैरामीटरों ने भी लगभग **13** की पिच (हेलिक्स के दो क्रमिक घुमावों के बीच की दूरी) वाले हेलिकल पथ का संकेत दिया।

### (Continuation) (जारी)

- micrometres and a radius of about **3 micrometres**. माइक्रोमीटर और लगभग **3 माइक्रोमीटर** की त्रिज्या।
- Both values fell well within previously reported ranges for these parasites. दोनों मान इन परजीवियों के लिए पहले से रिपोर्ट की गई सीमाओं के भीतर थे।
- The shapes of the paths simulated using these parameters also resembled the ones the authors actually measured. इन मानों का उपयोग कर सिमुलेट किए गए पथों के आकार उन पथों से मिलते-जुलते थे जिन्हें लेखकों ने वास्तव में मापा था।
- Taken together, the results suggest helical motion isn't just a geometric quirk but a **robust strategy** for microorganisms like the malaria parasite to travel efficiently in **noisy spaces**. सभी परिणाम मिलकर यह सुझाव देते हैं कि हेलिकल गति केवल एक ज्यामितीय विचित्रता नहीं बल्कि मलेरिया परजीवी जैसे सूक्ष्मजीवों के लिए **शोर-युक्त स्थानों** में प्रभावी ढंग से चलने की एक **मज़बूत रणनीति** है।
- For a parasite whose internal "engine" fluctuated on the same time scale as its turns, its rotating path could also average out those fluctuations and keep the overall direction of motion more stable. जिस परजीवी का आंतरिक "इंजन" उसके घुमाव के समयमान पर उतार-चढ़ाव करता है, उसके लिए यह घूमता हुआ पथ इन उतार-चढ़ावों को औसत कर गति की दिशा को अधिक स्थिर रख सकता है।



- The conclusion fits with earlier work on **sperm cells** and **algae**, where researchers had found helical swimming could help the cells move reliably in the presence of chemical gradients, despite strong noise in curvature and torsion.  
यह निष्कर्ष पहले के **शुक्राणु कोशिकाओं** और **शैवाल** पर हुए शोध से मेल खाता है, जहां पाया गया था कि हेलिकल तैराकी रासायनिक ढलानों की मौजूदगी में कोशिकाओं को विश्वसनीय रूप से आगे बढ़ने में मदद कर सकती है, भले ही **वक्रता** और **मोड़ (torsion)** में शोर अधिक हो।
- The conclusion may also complement geometric models of malaria parasites that have emphasised the importance of their natural curvature and flexibility to help them stick to blood vessels of a comparable radius.  
यह निष्कर्ष मलेरिया परजीवियों के ज्यामितीय मॉडलों को भी पूरक कर सकता है, जो उनकी प्राकृतिक वक्रता और **लचीलापन** को समान त्रिज्या वाली रक्त वाहिकाओं से चिपकने में महत्वपूर्ण मानते हैं।

## What goes around...

### जो घूमता है...

- After a mosquito bite, only a small fraction of the sporozoites need to reach a capillary for the infection to succeed.  
मच्छर के काटने के बाद संक्रमण को सफल होने के लिए केवल कुछ **स्पोरोज़ोइट्स** को ही किसी केशिका तक पहुंचना होता है।
- And evolution seems to have figured the best way to ensure each parasite covers more ground before losing direction, without also requiring precise control, is to have **helical motion** with “**coloured noise**.”  
और विकास ने संभवतः यह सुनिश्चित करने का सर्वोत्तम तरीका खोज लिया है कि प्रत्येक परजीवी दिशा खोने से पहले अधिक दूरी तय करे—वह तरीका है **हेलिकल गति** के साथ “**रंगा हुआ शोर (coloured noise)**।”
- “We suspect that this **chirality** developed during evolution to allow the pathogen to switch between the different tissue compartments in the host body quickly and always in the same way,” study coauthor and **Heidelberg University** professor of integrative parasitology **Friedrich Frischknecht** said in a release.  
“हम संदेह करते हैं कि यह **काइरैलिटी** विकास के दौरान इसलिए विकसित हुई ताकि रोगजनक मेजबान शरीर के विभिन्न ऊतक भागों के बीच तेजी से और हमेशा एक ही तरीके से जा सके,” **हाइडेलबर्ग विश्वविद्यालय** के प्रोफेसर और अध्ययन सह-लेखक **फ्रेडरिक फ्रिशकनेच्** ने कहा।
- Beyond malaria, the model could apply to other **microscopic swimmers** such as certain algae and colonial **choanoflagellates**, whose helical paths and noisy propulsion scientists have already documented.  
मलेरिया के अलावा, यह मॉडल अन्य **सूक्ष्म तैराकों** जैसे कुछ शैवाल और उपनिवेशीय **कोएनोफ्लैजेलेट्स** पर भी लागू हो सकता है, जिनकी हेलिकल गति और शोर-युक्त प्रणोदन पहले ही दर्ज किए जा चुके हैं।
- The authors suggested the model could also inspire designs for **artificial micro and nanobots** in medicine: by engineering a controlled rotational component and appropriate internal time scales, engineers could build small devices that navigate complex tissues more effectively than simply moving in a straight line.  
लेखकों ने सुझाव दिया कि यह मॉडल चिकित्सा क्षेत्र में **कृत्रिम माइक्रो और नैनोबॉट्स** के डिज़ाइन को भी प्रेरित कर सकता है—जहां नियंत्रित घूर्णन घटक और उपयुक्त आंतरिक समयमान बनाकर ऐसे छोटे उपकरण बनाए जा सकते हैं जो जटिल ऊतकों के भीतर सीधी रेखा में चलने की तुलना में अधिक प्रभावी ढंग से नेविगेट कर सकें।
- A **2014 study** by some members of the same team behind the new study treated the sporozoites as flexible rods interacting with obstacles.  
इसी टीम के कुछ सदस्यों के द्वारा किया गया **2014 का अध्ययन** स्पोरोज़ोइट्स को अवरोधों के साथ संपर्क करने वाली **लचीली छड़ें** मानता था।
- Subsequent models linked the sporozoites' shape with their ability to glide across certain surfaces.  
बाद के मॉडलों ने स्पोरोज़ोइट्स के आकार को कुछ सतहों पर ग्लाइड करने की उनकी क्षमता से जोड़ा।
- The new model seems to have added the missing ingredient: internal “**coloured noise**.”  
नए मॉडल ने वह लापता तत्व जोड़ दिया है: आंतरिक “**रंगा हुआ शोर**”।



## What next? अब आगे क्या?

- The authors concluded their paper saying they'd like to connect the timing of internal fluctuations to how organisms move, and then understand how those connections are shaped by where they live and how evolution has honed them.  
लेखकों ने अपने पेपर का निष्कर्ष देते हुए कहा कि वे आंतरिक उतार-चढ़ाव के समय-मान को जीवों की गति से जोड़ना चाहते हैं, और फिर समझना चाहते हैं कि उनका निवास-स्थान और विकास ने उन संबंधों को कैसे आकार दिया है।

# Why has Airbus ordered upgrades to its aircraft?

What happened on a JetBlue flight, which left some of the passengers injured? Are elevator aileron computers of the Airbus A320 family of aircraft susceptible to solar radiation? How many aircraft were affected in India? How long does it take to upgrade the software and hardware?

## EXPLAINER

### EXPLAINER

Murali N. Krishnaswamy

#### The story so far:

Airbus ordered software and hardware upgrades to an estimated 6,000 of its widely flown Airbus A320 family of aircraft across the world. This followed from an investigation of an inflight incident, on October 30, 2025, involving JetBlue flight B61230 from Cancun Mexico to Newark in the U.S., a distance of about 2,500 kilometres with a flight time of about three hours 30 minutes. The airline is a U.S.-based low-cost airline.

#### What happened to the JetBlue flight?

Flight B6-1230 was in U.S. airspace at about 35,000 feet when the aircraft experienced what was termed as an inflight upset that left some of the passengers injured and in need of medical aid on the ground. The crew, who reported flight control issues, decided to land in Tampa, Florida about 25 minutes after the incident, which was identified as an "uncommanded pitch-down event even as the autopilot was engaged".

In investigations in the U.S., involving the Federal Aviation Administration as well as the National Transportation Safety Board, one of the aircraft's two elevator aileron computers (ELAC) was identified to have been faulty.

#### What does the ELAC do?

The Airbus A320 family (like in the other Airbus aircraft families) has a fly-by-wire system, where flight crew moves/inputs through the sidesticks are converted to electronic signals. These are processed by the aircraft's flight control computers. Of these, the ELACs control the elevator and aileron controls which make the aircraft pitch up or down or bank left or right.

#### What was the issue?

David Kaminski-Morrow, Air Transport Editor, FlightGlobal, told *The Hindu* that the issue relates to a possible vulnerability in a relatively new software update



▲ **Revamp:** An Airbus A320 aircraft at IGI Airport, in New Delhi in 2016. FILE PHOTO

specifically developed for the A320 aircraft family. This software version is intended for the ELAC. The software upgrade incorporates new protective features for the aircraft's 'flight envelope', which is intended to assist the pilot during abnormal situations.

Airbus believes that this system is susceptible to solar radiation where energetic particles entering the earth's atmosphere can alter digital data and affect the avionics of aircraft, which, in turn, could corrupt information being transmitted by the ELAC flight-control computer and cause unexpected consequences. The nature of the suspected vulnerability in this case has not been disclosed, he said.

He said that Airbus feels that the software needs to be more resilient to such risks. The A320 operators affected

have been instructed to ensure that the ELAC is in a particular configuration which, in most cases, involves uninstalling the new software and going back to using a previous version. On

November 28, Airbus, through an Alert Operators Transmission, advised airlines operating the Airbus A320 family with ELAC B hardware (software version L104) to replace it with software version L103+.

The European Union Aviation Safety Agency (EASA) also issued an emergency

Airworthiness Directive highlighting the issue and recommendation.

#### What has happened in India?

India's regulator, the Directorate General of Civil Aviation (DGCA), moved quickly to ensure that Airbus operators in India – Indigo, Air India and its low-cost subsidiary Air India Express – complied

with the directive. In a stringent order, it said that no aircraft should continue in service without meeting the required safety standards. The DGCA circular of November 29, put the number of affected aircraft in India at 338 jets: Indigo (200), Air India (113), Air India Express (25).

In the case of Indigo, the upgrade was done at the airline's base stations in Delhi, Bengaluru, Mumbai, Chennai, Hyderabad and Kolkata. For Air India, the aircraft affected were a mix of new and older Airbus A320 variants and the upgrade was done at its base stations in New Delhi, Bengaluru, Mumbai, Hyderabad, Kolkata and Chennai. Air India Express had the "precautionary safety upgrade" done at base stations in Delhi, Bengaluru and Chennai. Contrary to expectations of major flight disruptions in India, the three operators completed the work quickly, with hardly any impact on schedules.

#### How has it been globally?

Aerospace firm Thales, the supplier of the ELAC, said that its hardware "complied fully with Airbus specifications and regulatory certifications, and that the vulnerable functionality involves software outside the company's responsibility".

Globally, most airlines have completed the work, with estimates of the number of aircraft left to be 100 or less. Several airlines revised the number of planes impacted as well as the time it would take for the work to be completed, which Airbus had estimated to be between two to three hours an aircraft. One operator, Colombia's Avianca, stopped flight bookings until December 8, but has revised the date to December 5, after receiving software support from France for its Airbus fleet.

A media report said that the fix involved uploading the previous software version with a cable from a device called a data loader. In some instances, the delays to the upgrade have been due to airlines not having enough data loaders. In some older aircraft, the report said that new hardware would have to be installed, which would cause delays. An additional issue was airline maintenance capabilities as well as global supply chain issues.

## THE GIST

Flight B6-1230 was in U.S. airspace at about 35,000 feet when the aircraft experienced what was termed as an inflight upset that left some of the passengers injured and in need of medical aid on the ground.

In investigations in the U.S., one of the aircraft's two elevator aileron computers (ELAC) was identified to have been faulty.

Aerospace firm Thales, the supplier of the ELAC, said that its hardware "complied fully with Airbus specifications and regulatory certifications, and that the vulnerable functionality involves software outside the company's responsibility".

## Why has Airbus ordered upgrades to its aircraft?

### एयरबस ने अपने विमानों के लिए अपग्रेड क्यों आदेशित किए?

- Airbus ordered **software and hardware upgrades** to an estimated **6,000 of its widely flown Airbus A320 family of aircraft** across the world.  
एयरबस ने दुनिया भर में अपने अनुमानित **6,000 व्यापक रूप से उड़ाए जाने वाले Airbus A320 परिवार के विमानों** के लिए **सॉफ्टवेयर और हार्डवेयर अपग्रेड** का आदेश दिया।
- This followed from an **investigation of an in-flight incident**, on October 30, 2025, involving **JetBlue flight B61230 from Cancun Mexico to Newark in the U.S.**, a distance of about **2,500 kilometres** with a flight time of about **three hours 30 minutes**.  
यह **इन-फ्लाइट घटना की जांच** के बाद हुआ, जो **30 अक्टूबर, 2025** को हुई, जिसमें **JetBlue की उड़ान B61230 Cancun, Mexico से Newark, U.S.** गई, लगभग **2,500 किलोमीटर** की दूरी और उड़ान समय लगभग **तीन घंटे 30 मिनट** था।



- The airline is a **U.S.-based low-cost airline**.  
यह एयरलाइन एक यू.एस.-आधारित कम लागत वाली एयरलाइन है।

### What happened to the JetBlue flight?

#### JetBlue की उड़ान में क्या हुआ?

- Flight **B6-1230** was in **U.S. airspace at about 35,000 feet** when the aircraft experienced what was termed as an **in-flight upset** that left some of the **passengers injured** and in need of **medical aid** on the ground.  
उड़ान **B6-1230** लगभग **35,000 फीट** की ऊँचाई पर U.S. की हवाई सीमा में थी, जब विमान में **इन-फ्लाइट अपसेट** हुआ, जिससे कुछ यात्रियों को चोटें आईं और उन्हें **जमीन पर चिकित्सा सहायता** की आवश्यकता पड़ी।
- The **crew**, who reported **flight control issues**, decided to land in **Tampa, Florida** about **25 minutes after the incident**, which was identified as an “**uncommanded pitch-down event even as the autopilot was engaged**”.  
कू, जिन्होंने **उड़ान नियंत्रण समस्याओं** की रिपोर्ट दी, ने घटना के लगभग **25 मिनट** बाद **Tampa, Florida** में उतरने का निर्णय लिया, जिसे “**स्वचालित पायलट सक्रिय होने के बावजूद अनियंत्रित पिच-डाउन घटना**” के रूप में पहचाना गया।
- In investigations in the **U.S.**, involving the **Federal Aviation Administration** as well as the **National Transportation Safety Board**, one of the aircraft's two **elevator aileron computers (ELAC)** was identified to have been **faulty**.  
**U.S.** में की गई जांचों में, जिसमें **Federal Aviation Administration** और **National Transportation Safety Board** शामिल थे, विमान के दो में से एक **elevator aileron कंप्यूटर (ELAC)** को खराब पाया गया।

### What does the ELAC do?

#### ELAC क्या करता है?

- The Airbus A320 family (like in the other Airbus aircraft families) has a **fly-by-wire system**, where **flight crew moves/inputs through the sidesticks** are converted to **electronic signals**.  
Airbus A320 परिवार (अन्य Airbus विमानों की तरह) में **फ्लाई-बाय-वाइर सिस्टम** है, जहां **फ्लाइट कू के साइडस्टिक इनपुट** को **इलेक्ट्रॉनिक सिग्नल** में बदला जाता है।
- These are processed by the aircraft's **flight control computers**.  
इनको विमान के **फ्लाइट कंट्रोल कंप्यूटर्स** द्वारा संसाधित किया जाता है।
- Of these, the **ELACs control the elevator and aileron controls** which make the aircraft **pitch up or down or bank left or right**.  
इनमें से, **ELACs एलीवेटर और एयरलॉन नियंत्रण** को नियंत्रित करते हैं, जो विमान को **ऊपर या नीचे झुकने या बाएं या दाएं बैंक करने** में मदद करते हैं।

### What was the issue?

#### समस्या क्या थी?

- David Kaminski-Morrow, **Air Transport Editor, FlightGlobal**, told The Hindu that the issue relates to a possible **vulnerability in a relatively new software update** specifically developed for the A320 aircraft family.  
David Kaminski-Morrow, **Air Transport Editor, FlightGlobal** ने The Hindu को बताया कि यह मुद्दा A320 विमान परिवार के लिए विशेष रूप से विकसित **नई सॉफ्टवेयर अपडेट में संभावित कमजोरियों** से संबंधित है।
- This software version is intended for the **ELAC**.  
यह सॉफ्टवेयर संस्करण **ELAC** के लिए है।
- The software upgrade incorporates new **protective features** for the aircraft's '**flight envelope**', which is intended to assist the pilot during **abnormal situations**.  
सॉफ्टवेयर अपग्रेड में विमान के '**फ्लाइट एनवेलप**' के लिए नए **सुरक्षा फीचर्स** शामिल हैं, जो **असामान्य परिस्थितियों** में पायलट की मदद के लिए डिज़ाइन किए गए हैं।



- Airbus believes that this system is susceptible to **solar radiation** where **energetic particles entering the earth's atmosphere** can alter **digital data** and affect the **avionics of aircraft**, which, in turn, could **corrupt information being transmitted by the ELAC flight-control computer** and cause **unexpected consequences**.  
Airbus का मानना है कि यह सिस्टम सौर विकिरण के प्रति संवेदनशील है, जहां ऊर्जावान कण जो पृथ्वी के वातावरण में प्रवेश करते हैं वे डिजिटल डेटा को बदल सकते हैं और विमान के एवियोनिक्स को प्रभावित कर सकते हैं, जो बदले में ELAC फ्लाइट-कंट्रोल कंप्यूटर द्वारा भेजी जा रही जानकारी को भ्रष्ट कर सकता है और अनपेक्षित परिणाम उत्पन्न कर सकता है।
- The nature of the suspected vulnerability in this case has not been disclosed, he said.  
उन्होंने कहा कि इस मामले में संभावित कमजोरी का स्वरूप सार्वजनिक नहीं किया गया है।
- He said that Airbus feels that the software needs to be **more resilient to such risks**.  
उन्होंने कहा कि Airbus का मानना है कि सॉफ्टवेयर को ऐसे जोखिमों के प्रति अधिक लचीला होना चाहिए।
- The **A320 operators affected** have been instructed to ensure that the **ELAC** is in a particular **configuration** which, in most cases, involves **uninstalling the new software** and going back to using a **previous version**.  
प्रभावित A320 ऑपरेटरों को निर्देश दिया गया है कि वे सुनिश्चित करें कि ELAC एक विशेष कॉन्फिगरेशन में हो, जो अधिकांश मामलों में नए सॉफ्टवेयर को अनइंस्टॉल करने और पिछले संस्करण का उपयोग करने को शामिल करता है।
- On November 28, Airbus, through an **Alert Operators Transmission**, advised airlines operating the Airbus A320 family with **ELAC B hardware (software version L104)** to replace it with **software version L103+**.  
28 नवंबर को, Airbus ने Alert Operators Transmission के माध्यम से, Airbus A320 परिवार को ऑपरेट करने वाली एयरलाइनों को ELAC B हार्डवेयर (सॉफ्टवेयर संस्करण L104) के साथ सॉफ्टवेयर संस्करण L103+ से बदलने की सलाह दी।
- The **European Union Aviation Safety Agency (EASA)** also issued an **emergency Airworthiness Directive** highlighting the issue and recommendation.  
European Union Aviation Safety Agency (EASA) ने भी आपातकालीन एयरवर्थिनेस डायरेक्टिव जारी किया, जिसमें इस मुद्दे और सिफारिश को उजागर किया गया।

### What has happened in India? भारत में क्या हुआ?

- India's regulator, the **Directorate General of Civil Aviation (DGCA)**, moved quickly to ensure that Airbus operators in India — **Indigo, Air India and its low-cost subsidiary Air India Express** — complied with the directive.  
भारत के नियामक, सिविल एविएशन महानिदेशालय (DGCA), ने तेजी से कदम उठाए ताकि भारत में Airbus ऑपरेटर — Indigo, Air India और इसकी कम लागत वाली सहायक एयर इंडिया एक्सप्रेस — निर्देश का पालन करें।
- In a stringent order, it said that **no aircraft should continue in service** without meeting the required **safety standards**.  
एक कड़े आदेश में कहा गया कि कोई भी विमान आवश्यक सुरक्षा मानकों को पूरा किए बिना सेवा में नहीं रह सकता।
- The DGCA circular of November 29, put the number of affected aircraft in India at **338 jets**: Indigo (200), Air India (113), Air India Express (25).  
DGCA की 29 नवंबर की परिपत्र ने भारत में प्रभावित विमानों की संख्या 338 जेट्स बताई: Indigo (200), Air India (113), Air India Express (25)।
- In the case of Indigo, the upgrade was done at the airline's **base stations in Delhi, Bengaluru, Mumbai, Chennai, Hyderabad and Kolkata**.  
Indigo के मामले में, अपग्रेड एयरलाइन के बेस स्टेशन में किया गया: दिल्ली, बेंगलुरु, मुंबई, चेन्नई, हैदराबाद और कोलकाता।
- For Air India, the aircraft affected were a mix of **new and older Airbus A320 variants** and the upgrade was done at its base stations in **New Delhi, Bengaluru, Mumbai, Hyderabad, Kolkata and Chennai**.  
Air India के लिए, प्रभावित विमान नई और पुरानी Airbus A320 वेरिएंट्स का मिश्रण थे और अपग्रेड इसके बेस स्टेशनों में किया गया: नई दिल्ली, बेंगलुरु, मुंबई, हैदराबाद, कोलकाता और चेन्नई।



- Air India Express had the “**precautionary safety upgrade**” done at base stations in **Delhi, Bengaluru and Chennai**.  
Air India Express ने “**सावधानीपूर्वक सुरक्षा अपग्रेड**” किया, बेस स्टेशनों में: **दिल्ली, बेंगलुरु और चेन्नई**।
- Contrary to expectations of **major flight disruptions in India**, the three operators completed the work quickly, with hardly any **impact on schedules**.  
भारत में **महत्वपूर्ण उड़ान व्यवधानों** की उम्मीदों के विपरीत, तीनों ऑपरेटरों ने काम जल्दी पूरा किया, और **शेड्यूल पर लगभग कोई प्रभाव नहीं** पड़ा।

### How has it been globally? वैश्विक स्तर पर स्थिति कैसी रही?

- Aerospace firm **Thales**, the supplier of the ELAC, said that its **hardware “complied fully with Airbus specifications and regulatory certifications”**, and that the vulnerable functionality involves **software outside the company’s responsibility**.  
एयरोस्पेस कंपनी **Thales**, ELAC की आपूर्तिकर्ता, ने कहा कि इसका **हार्डवेयर “पूरी तरह Airbus विनिर्देशों और नियामक प्रमाणपत्रों के अनुरूप”** था, और संवेदनशील कार्यक्षमता में **कंपनी की जिम्मेदारी के बाहर का सॉफ्टवेयर** शामिल है।
- Globally, most airlines have completed the work, with estimates of the number of aircraft left to be **100 or less**.  
वैश्विक स्तर पर, अधिकांश एयरलाइनों ने काम पूरा कर लिया है, शेष विमानों की संख्या का अनुमान **100 या उससे कम** है।
- Several airlines revised the number of planes impacted as well as the time it would take for the work to be completed, which Airbus had estimated to be between **two to three hours an aircraft**.  
कई एयरलाइनों ने प्रभावित विमानों की संख्या और काम पूरा करने के समय को संशोधित किया, जिसे Airbus ने **प्रत्येक विमान के लिए दो से तीन घंटे** का अनुमान लगाया था।
- One operator, **Colombia’s Avianca**, stopped flight bookings until **December 8**, but has revised the date to **December 5**, after receiving **software support from France** for its Airbus fleet.  
एक ऑपरेटर, **कोलंबिया की Avianca**, ने उड़ान बुकिंग **8 दिसंबर तक** रोक दी, लेकिन Airbus बेड़े के लिए **फ्रांस से सॉफ्टवेयर सहायता** प्राप्त करने के बाद इसे **5 दिसंबर** कर दिया।
- A media report said that the fix involved **uploading the previous software version** with a cable from a device called a **data loader**.  
एक मीडिया रिपोर्ट में कहा गया कि इस फिक्स में **पूर्व सॉफ्टवेयर संस्करण अपलोड करना** शामिल था, एक डिवाइस से कनेक्टेड केबल के जरिए जिसे **data loader** कहते हैं।
- In some instances, the delays to the upgrade have been due to airlines **not having enough data loaders**.  
कुछ मामलों में, अपग्रेड में देरी का कारण एयरलाइनों के पास **पर्याप्त data loaders का न होना** था।
- In some older aircraft, the report said that **new hardware** would have to be installed, which would cause delays.  
कुछ पुराने विमानों में, रिपोर्ट में कहा गया कि **नया हार्डवेयर** स्थापित करना होगा, जिससे देरी होगी।
- An additional issue was **airline maintenance capabilities** as well as **global supply chain issues**.  
एक अतिरिक्त समस्या थी **एयरलाइन मेंटेनेंस क्षमता** और **वैश्विक सप्लाई चेन मुद्दे**।



# Why is volcanic ash a safety concern for flights?

How has the eruption of the Hayli Gubbi volcano in northern Ethiopia affected flights? What has the Director General of Civil Aviation ordered? How does the ash affect the engines of aircraft?

GS III: S&T

Jagriti Chandra

## The story so far:

Last week, the Director General of Civil Aviation (DGCA), India's aviation regulator, ordered airlines to brace for the impact of volcanic ash travelling from Ethiopia after volcano Hayli Gubbi erupted for the first time in 12,000 years.

## How did it travel?

Hayli Gubbi volcano in northern Ethiopia erupted on November 23 for the first time in nearly 12,000 years, sending thick plumes of ash up to 14 km into the sky, and across the Red Sea towards Yemen and Oman. It even drifted towards Iran. The volcanic ash reached India's western border on November 24 at 5.50pm and moved out of the country's airspace by

10.30pm on November 25. Moving at around 100-120 km/hour at an altitude of 15,000 to 25,000 feet the plume carried volcanic ash, sulphur dioxide and tiny particles of glass and rock, travelling over Rajasthan, parts of Gujarat, Delhi-NCR, Punjab and Uttar Pradesh before crossing over to China.

## How does it impact aircraft?

A jet engine works by sucking in air, squeezing it, mixing it with fuel, burning it, and pushing hot gases out the back to produce thrust.

The engine runs extremely hot at temperatures of 1,600 degrees Celsius while turning very fast, with air racing through it at 600 mph. When volcanic ash gets into this environment, the silicate components melt and re-solidify at high temperatures creating a glassy deposit on

hot parts, which blocks tiny cooling holes choking off flow within the engine. This can lead to engines losing power or shutting down.

## What did the DGCA order state?

The DGCA issued an advisory urging airlines to steer clear of affected altitudes and regions to ensure safety. Airlines were also advised to report any suspected impact of ash on engine performance or cabin smoke or odour. Airports were ordered to inspect runways for contamination and suspend or restrict flight operations, if need be.

Air India cancelled at least nine flights on November 24 and 25, including those originating from Dubai, Doha and Dammam and said it was carrying out precautionary checks on aircraft.

Akasa also cancelled flights to and from

Jeddah, Kuwait and Abu Dhabi.

## How have flights been affected?

In 1982, a British Airways Boeing 747 flying at 37,000 ft enroute from London to Auckland flew through a volcanic ash cloud from Mount Galunggung near Jakarta. All four engines failed one after another due to the ash. As engines control the pressurisation system, the oxygen levels in the passenger cabin started to drop and passenger oxygen masks were deployed. With mountains blocking the way to the emergency airport, it seemed like the plane would have to ditch in the Indian Ocean. Luckily, after descending more than 25,000 feet, the pilots managed to restart one engine and then the other three, although one engine had to be shut down again. With enough power to reach the airport safely, the crew still faced the difficult task of landing with windscreens clouded almost completely by volcanic ash.

In 1989, a KLM Boeing 747-400 flying to Anchorage, Alaska, hit ash from the nearby Mount Redoubt eruption. All four engines shut down suddenly at 24,000 ft. The crew descended 14,000 ft and had to perform the engine restart procedure a number of times before it was able to successfully land the plane safely. But the engines worth \$80 million were severely damaged and had to be scrapped.

## THE GIST

Hayli Gubbi volcano in northern Ethiopia erupted on November 23 for the first time in nearly 12,000 years, sending thick plumes of ash up to 14 km into the sky.

The DGCA issued an advisory urging airlines to steer clear of affected altitudes and regions to ensure safety.

In 1989, a KLM Boeing 747-400 flying to Anchorage, Alaska, hit ash from the nearby Mount Redoubt eruption. All four engines shut down suddenly at 24,000 ft.

## Why is volcanic ash a safety concern for flights?

### वोल्केनिक राख उड़ानों के लिए सुरक्षा चिंता क्यों है?

- Last week, the Director General of Civil Aviation (DGCA), India's aviation regulator, ordered airlines to brace for the impact of volcanic ash travelling from Ethiopia after the Hayli Gubbi volcano erupted for the first time in 12,000 years. पिछले सप्ताह, भारत के सिविल एविएशन महानिदेशक (DGCA), ने एयरलाइनों को तैयार रहने का आदेश दिया क्योंकि Ethiopia से वोल्केनिक राख भारत की ओर बढ़ रही थी, जब Hayli Gubbi ज्वालामुखी ने 12,000 वर्षों में पहली बार विस्फोट किया।

## How did it travel?

### यह कैसे फैली?

- Hayli Gubbi volcano in northern Ethiopia erupted on November 23 for the first time in nearly 12,000 years, sending thick plumes of ash up to 14 km into the sky, and across the Red Sea towards Yemen and Oman. Hayli Gubbi ज्वालामुखी, उत्तरी Ethiopia में 23 नवंबर को विस्फोट हुआ, लगभग 12,000 वर्षों में पहली बार, जिससे मोटी राख की धुंध 14 किमी तक आकाश में फैल गई, और Red Sea के पार Yemen और Oman की ओर बढ़ी।
- It even drifted towards Iran. यह Iran की ओर भी बही।
- The volcanic ash reached India's western border on November 24 at 5.50pm and moved out of the country's airspace by 10.30pm on November 25. वोल्केनिक राख भारत की पश्चिमी सीमा तक 24 नवंबर को 5.50 बजे पहुंची और देश की हवाई सीमा से 25 नवंबर को 10.30 बजे बाहर चली गई।
- Moving at around 100-120 km/hour at an altitude of 15,000 to 25,000 feet, the plume carried volcanic ash, sulphur dioxide and tiny particles of glass and rock, travelling over Rajasthan, parts of Gujarat, Delhi-NCR, Punjab and Uttar Pradesh before crossing over to China. लगभग 100-120 किमी/घंटा की गति से 15,000 से 25,000 फीट की ऊँचाई पर, यह राख वोल्केनिक राख, सल्फर डाइऑक्साइड और छोटे कांच व चट्टान के कण ले गई, और Rajasthan, Gujarat के हिस्से, Delhi-NCR, Punjab और Uttar Pradesh से होकर China की ओर गई।

## How does it impact aircraft?

### यह विमानों को कैसे प्रभावित करती है?



- A jet engine works by sucking in air, squeezing it, mixing it with fuel, burning it, and pushing hot gases out the back to produce thrust.  
एक जेट इंजन काम करता है हवा को खींचकर, उसे दबाकर, ईंधन के साथ मिलाकर, जलाकर और गर्म गैसों को पीछे धकेलकर जोर पैदा करने के लिए।
- The engine runs extremely hot at temperatures of 1,600 degrees Celsius while turning very fast, with air racing through it at 600 mph.  
इंजन अत्यधिक गर्म चलता है, तापमान 1,600 डिग्री सेल्सियस पर, तेज़ गति से घूमते हुए, और हवा इसमें 600 mph की गति से दौड़ती है।
- When volcanic ash gets into this environment, the silicate components melt and re-solidify at high temperatures creating a glassy deposit on hot parts, which blocks tiny cooling holes choking off flow within the engine.  
जब वोल्केनिक राख इस वातावरण में प्रवेश करती है, तो सिलिकेट घटक पिघलते हैं और उच्च तापमान पर फिर से ठोस हो जाते हैं, जिससे गर्म हिस्सों पर कांच जैसा जमा बन जाता है, जो छोटे कूलिंग होल्स को बंद कर देता है और इंजन में फ्लो को रोक देता है।
- This can lead to engines losing power or shutting down.  
इससे इंजन पावर खो सकते हैं या बंद हो सकते हैं।

### What did the DCGA order state?

#### DGCA के आदेश में क्या कहा गया?

- The DGCA issued an advisory urging airlines to steer clear of affected altitudes and regions to ensure safety.  
DGCA ने एक सलाह जारी की, जिसमें एयरलाइनों को प्रभावित ऊंचाई और क्षेत्रों से दूर रहने की सलाह दी।
- Airlines were also advised to report any suspected impact of ash on engine performance or cabin smoke or odor.  
एयरलाइनों को यह भी सलाह दी गई कि वे इंजन प्रदर्शन, केबिन में धुआँ या गंध पर किसी भी संदेहास्पद प्रभाव की रिपोर्ट करें।
- Airports were ordered to inspect runways for contamination and suspend or restrict flight operations, if need be.  
एयरपोर्ट को आदेश दिया गया कि वे रनवे की सफाई की जांच करें और आवश्यक होने पर उड़ान संचालन को निलंबित या सीमित करें।
- Air India cancelled at least nine flights on November 24 and 25, including those originating from Dubai, Doha and Dammam, and said it was carrying out precautionary checks on aircraft.  
Air India ने कम से कम नौ उड़ानों को 24 और 25 नवंबर को रद्द कर दिया, जिनमें Dubai, Doha और Dammam से शुरू होने वाली उड़ानें शामिल थीं, और कहा कि यह विमानों पर सावधानीपूर्वक जांच कर रहा था।
- Akasa also cancelled flights to and from Jeddah, Kuwait and Abu Dhabi.  
Akasa ने भी Jeddah, Kuwait और Abu Dhabi के लिए और वहां से उड़ानें रद्द कीं।

### How have flights been affected?

#### उड़ानों पर इसका क्या प्रभाव पड़ा है?

- In 1982, a British Airways Boeing 747 flying at 37,000 ft enroute from London to Auckland flew through a volcanic ash cloud from Mount Galunggung near Jakarta.  
1982 में, एक British Airways Boeing 747, जो 37,000 फीट की ऊँचाई पर London से Auckland जा रही थी, Mount Galunggung, Jakarta के पास वोल्केनिक राख के बादल से गुज़री।
- All four engines failed one after another due to the ash.  
सभी चार इंजन राख के कारण एक के बाद एक फेल हो गए।
- As engines control the pressurisation system, the oxygen levels in the passenger cabin started to drop and passenger oxygen masks were deployed.  
जैसा कि इंजन प्रेशराइजेशन सिस्टम को नियंत्रित करते हैं, यात्री केबिन में ऑक्सीजन स्तर गिरने लगे और यात्री ऑक्सीजन मास्क लगाए गए।



- With mountains blocking the way to the **emergency airport**, it seemed like the plane would have to **ditch in the Indian Ocean**.  
पर्वतों के कारण **आपातकालीन हवाई अड्डे** का रास्ता बंद होने के कारण, ऐसा लगा कि विमान को **Indian Ocean में उतरना पड़ेगा**।
- Luckily, after descending more than **25,000 feet**, the pilots managed to **restart one engine and then the other three**, although one engine had to be **shut down again**.  
सौभाग्य से, **25,000 फीट से अधिक नीचे उतरने के बाद**, पायलटों ने **एक इंजन को पुनः चालू किया और फिर अन्य तीन को**, हालांकि एक इंजन को **फिर से बंद करना पड़ा**।
- With enough power to reach the airport safely, the crew still faced the **difficult task of landing with windscreens clouded almost completely by volcanic ash**.  
सुरक्षित रूप से हवाई अड्डे तक पहुँचने के लिए पर्याप्त शक्ति के साथ, कू को **वोल्केनिक राख से लगभग पूरी तरह से धुंधले विंडस्क्रीन के साथ लैंडिंग करने की कठिन चुनौती** का सामना करना पड़ा।
- In 1989, a **KLM Boeing 747-400** flying to **Anchorage, Alaska**, hit ash from the nearby **Mount Redoubt eruption**.  
1989 में, एक **KLM Boeing 747-400**, जो **Anchorage, Alaska** जा रही थी, ने पास के **Mount Redoubt विस्फोट** की राख से टकराई।
- All **four engines shut down suddenly at 24,000 ft**.  
सभी **चार इंजन अचानक 24,000 फीट** पर बंद हो गए।
- The crew descended **14,000 ft** and had to perform the **engine restart procedure** a number of times before it was able to **successfully land the plane safely**.  
कू ने **14,000 फीट नीचे उतरा** और कई बार **इंजन पुनः चालू करने की प्रक्रिया** करनी पड़ी, इससे पहले कि विमान को **सुरक्षित रूप से सफलतापूर्वक लैंड कराया जा सके**।
- But the engines worth **\$80 million** were severely **damaged and had to be scrapped**.  
लेकिन **\$80 मिलियन** मूल्य के इंजन गंभीर रूप से **नष्ट हो गए और उन्हें स्कैप करना पड़ा**।

DM

04/12/2025



GS III: Disaster Management

## Sting in the tail

Ditwah devastated Sri Lanka, and exposed infrastructure gaps in India

**D**uring its slow crawl over Sri Lanka in November, Cyclone Ditwah was a rain machine that repeatedly swept over the same areas for days, eventually precipitating a national disaster with widespread flooding. Fourteen lakh people were affected, and at least 474 were killed. After crossing Sri Lanka, the system re-entered the Bay of Bengal and briefly reintensified, bringing heavy rains to north Tamil Nadu and south Andhra Pradesh. By December 1, the storm's remnant parked itself off Chennai's coast as a deep depression. The next day, after around 18 cm of rain over 24 hours, the city woke to flooded streets and widespread waterlogging. While that much rain would test any urban drainage system, public frustration has mounted. That Ditwah was tricky to predict made matters worse. Chennai's storm water network has been rebuilt and extended after the 2015 floods, and again since 2023, but it cannot be flood-proof. Integrated projects in local basins are designed to handle intense bursts rather than hours of heavy rain. The GCC has said that it has spent ₹5,200 crore over four years to add around 1,100 km of new drains, with three-fourths of the work done. A separate endeavour to fix smaller broken links is incomplete, leaving many streets waterlogged. Chennai's flat layout, increasing paved area, and the three rivers running through it from catchments in Tiruvallur and Kancheepuram also mean that when a storm system inundates those basins and Chennai together, water levels will rise quickly. Recent floods in north Chennai exposed the encroachment and shoddy desilting of the Kosasthalaiyar. With its ability to tolerate flooding diminished, the GCC had to shut some drains and pump stagnant waters against reverse flow. By lingering near Chennai, the new storm had similar effects.

The Thiruppugazh Committee appointed after the 2021 floods produced a 600-page report with basin-wise recommendations and numerous measures. The State government has cited this report while justifying design changes and drain upgrades, building artificial water bodies, and seeking central funds for an 'Integrated Urban Flood Management' project, yet the report remains out of public view. There is also no verifiable consolidated implementation plan with a deadline. Flood maps and elevation models exist for the Chennai basin but they are not a shared reference for enforcement and relief efforts, while proper zoning and limits on construction continue to elude residents. Thus, the rains underline an unresolved story while spotlighting gaps in infrastructure and transparency. As the upgrades take shape, the State must publish the report and ensure hazard maps and basin-wide coordination efforts as well as temporary solutions such as pumps keep pace with the storms that routinely test them.

with three-fourths of the work done.

GCC ने कहा कि उसने चार वर्षों में लगभग 1,100 किमी नए नालों को जोड़ने के लिए ₹5,200 करोड़ खर्च किए हैं, जिसमें तीन-चौथाई काम पूरा हो चुका है।

## Sting in the tail अंत में झटका

• Ditwah devastated **Sri Lanka**, and exposed **infrastructure gaps in India**  
डिटवाह ने श्रीलंका को तबाह किया, और भारत में अवसंरचना की कमजोरियों को उजागर किया

• During its slow crawl over **Sri Lanka** in November, **Cyclone Ditwah** was a rain machine that repeatedly swept over the same areas for days, eventually precipitating a national disaster with widespread flooding.

नवंबर में श्रीलंका के ऊपर धीरे-धीरे चलते हुए, साइक्लोन डिटवाह एक बारिश मशीन था जिसने कई दिनों तक लगातार एक ही क्षेत्रों को ढकेला, और अंततः व्यापक बाढ़ के साथ राष्ट्रीय आपदा को जन्म दिया।

• Fourteen lakh people were affected, and at least 474 were killed.

चौदह लाख लोग प्रभावित हुए, और कम से कम 474 की मौत हुई।

• After crossing **Sri Lanka**, the system re-entered the **Bay of Bengal** and briefly reintensified, bringing heavy rains to north **Tamil Nadu** and south **Andhra Pradesh**.

श्रीलंका पार करने के बाद, यह प्रणाली बंगाल की खाड़ी में वापस आई और थोड़ी देर के लिए फिर से तीव्र हुई, जिससे उत्तर तमिलनाडु और दक्षिण आंध्र प्रदेश में भारी बारिश हुई।

• By **December 1**, the storm's remnants parked itself off **Chennai's coast** as a deep depression.

1 दिसंबर तक, तूफान का शेष भाग चेन्नई की तटरेखा के पास एक गहरी अवसाद के रूप में स्थित था।

• The next day, after around **18 cm of rain over 24 hours**, the city woke to flooded streets and widespread waterlogging.

अगले दिन, लगभग 24 घंटों में 18 सेमी बारिश के बाद, शहर बाढ़ग्रस्त सड़कों और व्यापक जलजमाव के साथ जागा।

• While that much rain would test any urban drainage system, public frustration has mounted.

इतनी बारिश किसी भी शहरी जल निकासी प्रणाली की परीक्षा ले सकती है, और जनता में निराशा बढ़ गई है।

• That Ditwah was tricky to predict made matters worse.

यह कि डिटवाह का पूर्वानुमान कठिन था, ने स्थिति को और बिगाड़ दिया।

• **Chennai's storm water network** has been rebuilt and extended after the **2015 floods**, and again since **2023**, but it cannot be flood-proof.

चेन्नई के तूफानी जल नेटवर्क को 2015 की बाढ़ के बाद फिर से बनाया और बढ़ाया गया, और 2023 से फिर से, लेकिन यह पूरी तरह बाढ़-प्रतिरोधी नहीं हो सकता।

• Integrated projects in local basins are designed to handle intense bursts rather than hours of heavy rain.

स्थानीय जलाशयों में एकीकृत परियोजनाएँ तीव्र विस्फोट को संभालने के लिए बनाई गई हैं, न कि घंटों की भारी बारिश के लिए।

• The **GCC** has said that it has spent ₹5,200 crore over four years to add around **1,100 km of new drains**,



- A separate endeavour to fix smaller broken links is incomplete, leaving many streets waterlogged.  
छोटे टूटे लिंक को ठीक करने का अलग प्रयास अधूरा है, जिससे कई सड़कों पर जलजमाव रह गया है।
- **Chennai's flat layout**, increasing paved area, and the three rivers running through it from catchments in **Tiruvallur** and **Kancheepuram** also mean that when a storm system inundates those basins and Chennai together, water levels will rise quickly.  
**चेन्नई की समतल योजना**, बढ़ता हुआ **पक्का क्षेत्र**, और **तीन नदियाँ** जो **तिरुवल्लुर** और **कांचीपुरम** के जल संग्रह क्षेत्रों से होकर गुजरती हैं, का मतलब है कि जब कोई **तूफानी प्रणाली** उन जलाशयों और चेन्नई को एक साथ भर देगी, तो जल स्तर जल्दी बढ़ जाएगा।
- Recent floods in **north Chennai** exposed the **encroachment** and **shoddy desilting** of the **Kosasthalaiyar**.  
हाल की **उत्तरी चेन्नई** की बाढ़ ने **कसस्थलैयार** में **अतिक्रमण** और **खराब डी-सिल्टिंग** को उजागर किया।
- With its ability to tolerate flooding diminished, the **GCC** had to shut some drains and pump stagnant waters against reverse flow.  
बाढ़ सहन करने की क्षमता कम होने के कारण, **GCC** को कुछ नालों को बंद करना पड़ा और **स्थिर पानी** को विपरीत दिशा में पंप करना पड़ा।
- By lingering near Chennai, the new storm had similar effects.  
चेन्नई के पास बने रहने से, नए तूफान का **समान प्रभाव** पड़ा।
- The **Thiruppugazh Committee** appointed after the **2021 floods** produced a **600-page report** with basin-wise recommendations and numerous measures.  
**थिरुप्पुगज़ समिति**, जिसे **2021 की बाढ़** के बाद नियुक्त किया गया, ने **600 पृष्ठों** की रिपोर्ट बनाई जिसमें जलाशय-वार सिफ़ारिशें और कई उपाय थे।
- The State government has cited this report while justifying design changes and drain upgrades, building artificial water bodies, and seeking central funds for an '**Integrated Urban Flood Management**' project, yet the report remains out of public view.  
राज्य सरकार ने डिज़ाइन बदलाव और नालों के अपग्रेड, **कृत्रिम जल निकाय** बनाने, और '**इंटीग्रेटेड अर्बन फ्लड मैनेजमेंट**' परियोजना के लिए केंद्रीय निधि मांगते समय इस रिपोर्ट का हवाला दिया, लेकिन यह रिपोर्ट अभी भी **सार्वजनिक दृश्य से बाहर** है।
- There is also no verifiable consolidated implementation plan with a deadline.  
साथ ही कोई **सत्यापित समेकित कार्यान्वयन योजना** नहीं है जिसमें समय सीमा हो।
- Flood maps and elevation models exist for the **Chennai basin** but they are not a shared reference for enforcement and relief efforts, while proper zoning and limits on construction continue to elude residents.  
**चेन्नई जलाशय** के लिए बाढ़ नक्शे और ऊँचाई मॉडल मौजूद हैं, लेकिन वे **अनुपालन और राहत प्रयासों** के लिए साझा संदर्भ नहीं हैं, जबकि उचित **ज़ोनिंग** और **निर्माण सीमा** अब भी निवासियों से दूर हैं।
- Thus, the rains underline an unresolved story while spotlighting gaps in infrastructure and transparency.  
इस प्रकार, यह बारिश **अवसुलझी कहानी** को उजागर करती है और **अवसंरचना और पारदर्शिता में कमियों** को भी सामने लाती है।
- As the upgrades take shape, the State must publish the report and ensure hazard maps and basin-wide coordination efforts as well as temporary solutions such as pumps keep pace with the storms that routinely test them.  
जब अपग्रेड तैयार होंगे, राज्य को यह रिपोर्ट **प्रकाशित** करनी चाहिए और सुनिश्चित करना चाहिए कि **जोखिम मानचित्र, जलाशय-व्यापी समन्वय प्रयास**, और **अस्थायी उपाय** जैसे पंप, उन तूफानों के साथ **समय पर काम** करें जो उन्हें नियमित रूप से परखते हैं।



# Economic offenders who fled India owe ₹39,000 crores

Just nine Fugitive Economic Offenders owed ₹58,000 crore, of which ₹19,000 crore was recovered

GS III: IS

## DATA POINT

Sambavi Parthasarathy

**J**ust nine Fugitive Economic Offenders (FEOs) owed Indian banks over ₹58,000 crore in principal and interest. Despite having arrest warrants issued against them, these FEOs have left India and refuse to return to avoid criminal prosecution. Of this, the principal amount owed is ₹26,645 crore, while interest accounts for ₹31,437 crore. To date, banks have recovered just over ₹19,000 crore – roughly 33% of the total dues (Chart 1).

Earlier this week, the Ministry of Finance informed Parliament that 15 individuals had been declared FEOs as of October 31. Nine of them are involved in large-scale financial fraud, and the amounts they owe have been made public.

State Bank of India (SBI) is owed over ₹22,000 crore, followed by Punjab National Bank and Bank of India (Chart 2). Notably, the SBI has achieved the highest recovery rate among these lenders, retrieving close to 52%. This is largely attributed to effective recovery measures, including liquidation, in Vijay Mallya's account. In contrast, the recovery rate for other banks remains below 40%.

In terms of total dues owed initially (principal plus interest), businessman Mallya tops the list with nearly ₹27,000 crore (Chart 3). He is followed by the Sandesara family (Sterling Group) and Nirav Modi. Over 56% of amount owed by Mallya has been recovered till date, date show, while for others, the rate is much lower at 17% for the Sandesara family and 7% in the case of Modi.

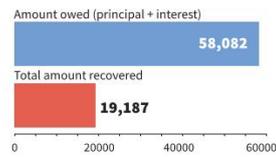
Charts 4, 5, and 6 detail the loan exposure and recovered amount for the top offenders. SBI led in exposure to and recovered amount for the top offenders. SBI led in exposure to and recovered amount for the top offenders. SBI led in exposure to and recovered amount for the top offenders.

## Amounts owed by and recovered from fugitives

The data for the charts were sourced from Parliament Questions and Answers



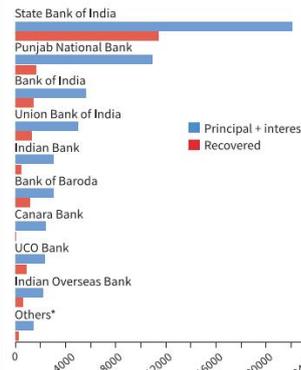
**CHART 1:** Amount owed and recovered by Indian banks from select FEOs. Figures in ₹crore



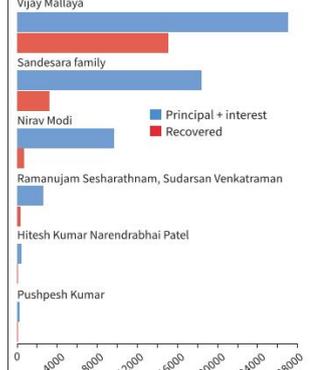
This analysis includes the two fugitive economic offenders who have negotiated loan settlement under One Time Settlement (OTS). In the graphs, members of the Sandesara family refers to amount borrowed by/recovered from Nitin J. Sandesara, Chetan J. Sandesara, and Dipi C. Sandesara as mentioned in the parliament document

\*In chart 2, others include Bank of Maharashtra, Punjab and Sind Bank, and Central Bank of India

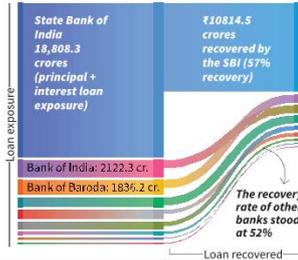
**CHART 2:** Amount owed to the banks and amount recovered. Figures in ₹crore



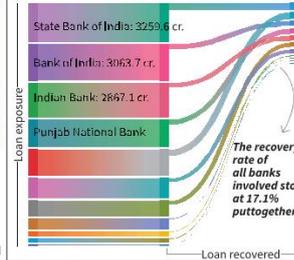
**CHART 3:** Amount owed by the offenders and amount recovered. Figures in ₹crore



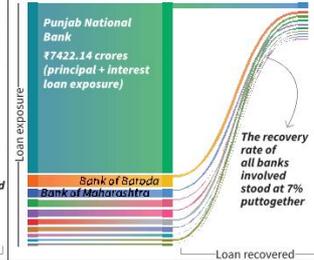
**CHART 4:** Loan exposure of various banks and the recovered amount in accounts related to Vijay Mallya



**CHART 5:** Loan exposure and the recovered amount in accounts related to the Sandesara family



**CHART 6:** Loan exposure and the recovered amount in accounts related to Nirav Modi



## Economic offenders who fled India owe ₹39,000 crores भारत से फरार आर्थिक अपराधियों का बकाया ₹39,000 करोड़

- Just nine Fugitive Economic Offenders owed ₹58,000 crore, of which ₹19,000 crore was recovered  
केवल नौ फरार आर्थिक अपराधियों का बकाया ₹58,000 करोड़ था, जिसमें से ₹19,000 करोड़ की वसूली हो चुकी है
- Just nine Fugitive Economic Offenders (FEOs) owed Indian banks over ₹58,000 crore in principal and interest.  
केवल नौ फरार आर्थिक अपराधियों (FEOs) का भारतीय बैंकों के प्रति मुख्यधन और ब्याज सहित ₹58,000 करोड़ से अधिक का बकाया था।
- Despite having arrest warrants issued against them, these FEOs have left India and refuse to return to avoid criminal prosecution.  
इनके खिलाफ गिरफ्तारी वारंट जारी होने के बावजूद, ये FEOs भारत छोड़कर चले गए हैं और अपराधिक अभियोजन से बचने के लिए लौटने से इनकार कर रहे हैं।
- Of this, the principal amount owed is ₹26,645 crore, while interest accounts for ₹31,437 crore.  
इसमें, मुख्यधन ₹26,645 करोड़ है, जबकि ब्याज ₹31,437 करोड़ का है।



- To date, banks have recovered just over ₹19,000 crore — roughly 33% of the total dues (Chart 1).  
अब तक, बैंकों ने केवल ₹19,000 करोड़ से थोड़ा अधिक की वसूली की है — जो कुल बकाया का लगभग 33% है (चार्ट 1)।
- Earlier this week, the **Ministry of Finance** informed **Parliament** that 15 individuals had been declared FEOs as of October 31.  
इस सप्ताह की शुरुआत में, **वित्त मंत्रालय** ने **संसद** को सूचित किया कि 31 अक्टूबर तक 15 व्यक्तियों को FEO घोषित किया गया था।
- Nine of them are involved in **large-scale financial fraud**, and the amounts they owe have been made public.  
इनमें से नौ लोग **बड़े पैमाने पर वित्तीय धोखाधड़ी** में शामिल हैं, और उनका बकाया सार्वजनिक किया गया है।
- **State Bank of India (SBI)** is owed over ₹22,000 crore, followed by **Punjab National Bank** and **Bank of India** (Chart 2).  
**स्टेट बैंक ऑफ इंडिया (SBI)** का बकाया ₹22,000 करोड़ से अधिक है, इसके बाद **पंजाब नेशनल बैंक** और **बैंक ऑफ इंडिया** का क्रम है (चार्ट 2)।
- Notably, the SBI has achieved the **highest recovery rate** among these lenders, retrieving close to 52%.  
ध्यान देने योग्य है कि SBI ने इन ऋणदाताओं में **सबसे अधिक वसूली दर** प्राप्त की है, लगभग 52% की वसूली की।
- This is largely attributed to **effective recovery measures**, including **liquidation**, in Vijay Mallya's account.  
यह मुख्य रूप से **प्रभावी वसूली उपायों** के कारण है, जिसमें विजय माल्या के खाते में **लिक्विडेशन** शामिल है।
- In contrast, the recovery rate for other banks remains below 40%.  
इसके विपरीत, अन्य बैंकों की वसूली दर 40% से कम बनी हुई है।
- In terms of **total dues owed initially** (principal plus interest), businessman **Mallya** tops the list with nearly ₹27,000 crore (Chart 3).  
प्रारंभिक **कुल बकाया** (मुख्यधन + ब्याज) के मामले में, व्यवसायी **माल्या** सूची में सबसे ऊपर हैं, लगभग ₹27,000 करोड़ के साथ (चार्ट 3)।
- He is followed by the **Sandesara family (Sterling Group)** and **Nirav Modi**.  
इसके बाद **संदेसारा परिवार (स्टर्लिंग ग्रुप)** और **नीरव मोदी** का क्रम है।
- Over 56% of the amount owed by **Mallya** has been recovered till date, while for others, the rate is much lower at 17% for the **Sandesara family** and 7% in the case of **Modi**.  
अब तक **माल्या** के बकाया का 56% से अधिक वसूला जा चुका है, जबकि अन्य के लिए दर काफी कम है: **संदेसारा परिवार** के लिए 17% और **मोदी** के मामले में 7%।
- Charts 4, 5, and 6 detail the **loan exposure** and **recovered amount** for the top offenders.  
चार्ट 4, 5 और 6 में शीर्ष अपराधियों के लिए **ऋण जोखिम** और **वसूली की गई राशि** का विवरण दिया गया है।
- **SBI** led in exposure to **Mallya**, whereas **PNB** bore the brunt of **Modi's defaults**.  
**SBI** का **माल्या** के मामले में सबसे अधिक जोखिम था, जबकि **PNB** ने **मोदी के डिफॉल्ट** का भार उठाया।
- For the **Sandesara family**, the exposure was shared among multiple banks.  
**संदेसारा परिवार** के लिए, जोखिम कई बैंकों में साझा किया गया था।