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# PATRIOTIC IAS

## DAILY CURRENT AFFAIRS

### THE HINDU NEWSPAPER

## 04 JUNE 2026

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PCS Special:	04 June 2026
04J6	28 lakh women to get monthly dole as Bengal govt. rolls out Annapurna Bhandar scheme अन्नपूर्णा भंडार योजना लागू होने पर बंगाल सरकार 28 लाख महिलाओं को मासिक सहायता देगी
04J6	Japan's fertility rate falls to a record low जापान की प्रजनन दर रिकॉर्ड निम्न स्तर पर पहुँची
04J6	QUIZ
04J6	Denmark PM presents new govt., with majority of women Ministers डेनमार्क की प्रधानमंत्री ने नई सरकार प्रस्तुत की, जिसमें महिला मंत्रियों का बहुमत है
04J6	Praggnanandhaa does the double over Carlsen प्रज्ञानानंदा ने कार्लसन पर दूसरी बार भी जीत दर्ज की



# 28 lakh women to get monthly dole as Bengal govt. rolls out Annapurna Bhandar scheme

PCS

**Shiv Sahay Singh**  
KOLKATA

West Bengal Chief Minister Suwendu Adhikari on Wednesday rolled out the Annapurna Bhandar scheme that will provide monthly aid of ₹3,000 to eligible women in the 25 to 60 age group in the State.

Mr. Adhikari handed over cheques to five beneficiaries at the State Secretariat to mark the launch of the direct benefit transfer scheme. He said 28,25,769 women have been approved to receive aid.

Beneficiaries have been given 90 days to register under the scheme.

Doubling the aid of ₹1,500 provided by the previous Trinamool Congress government under its Lakshmir Bhandar scheme to ₹3,000 was one of the promises made by the BJP during the campaign for



CM Suwendu Adhikari (right) handing over cheques to beneficiaries at the launch of the Annapurna Bhandar scheme on Wednesday. PTI

the Assembly poll.

Women and Child Development Minister Agnimitra Paul said fresh applications are being considered due to "corruption" in the implementation of the Lakshmir Bhandar scheme under which 2.2 crore women received aid.

Chief Secretary Manoj Agarwal said the list of beneficiaries of the new scheme will be made pu-

blic and people can file objections if non-deserving persons are receiving aid.

The newly elected BJP government had come under Opposition attack over the introduction of a "tedious" 11-page application form for the Annapurna Bhandar scheme and the declaration that existing beneficiaries of the Lakshmir Bhandar scheme will have to apply afresh.

## 04J6. 28 lakh women to get monthly dole as Bengal govt. rolls out Annapurna Bhandar scheme

अन्नपूर्णा भंडार योजना लागू होने पर बंगाल सरकार 28 लाख महिलाओं को मासिक सहायता देगी

- West Bengal Chief Minister Suwendu Adhikari on Wednesday rolled out the **Annapurna Bhandar scheme** that will provide monthly aid of **₹3,000** to eligible women in the **25 to 60 age group** in the State.

पश्चिम बंगाल के मुख्यमंत्री सुवेंदु अधिकारी ने बुधवार को अन्नपूर्णा भंडार योजना शुरू की, जिसके तहत राज्य की 25 से 60 वर्ष आयु वर्ग की पात्र महिलाओं को प्रति माह ₹3,000 की सहायता प्रदान की जाएगी।

- Mr. Adhikari handed over cheques to five beneficiaries at the **State Secretariat** to mark the launch of the **direct benefit transfer scheme**.

श्री अधिकारी ने प्रत्यक्ष लाभ अंतरण (DBT) योजना के शुभारंभ के अवसर पर राज्य सचिवालय में पाँच लाभार्थियों को चेक सौंपे।

- Doubling the aid of **₹1,500** provided by the previous **Trinamool Congress government** under its **Lakshmir Bhandar scheme** to **₹3,000** was one of the promises made by the **BJP**



during the campaign for the **Assembly poll**.

पूर्व तृणमूल कांग्रेस सरकार द्वारा लक्ष्मी भंडार योजना के तहत दी जाने वाली ₹1,500 की सहायता को बढ़ाकर ₹3,000 करना भाजपा द्वारा विधानसभा चुनाव प्रचार के दौरान किए गए प्रमुख वादों में से एक था।

## Japan's fertility rate falls to a record low

PCS

**1.14** Japan's fertility rate fell again last year to a record low, official data showed.

Japan has one of the world's lowest birth rates, as well as a falling and ageing population, leading to labour shortages, a ballooning social security bill and a shrinking tax base. The number of babies born in the country fell by nearly 15,000.

## 04J6. Japan's fertility rate falls to a record low

### जापान की प्रजनन दर रिकॉर्ड निम्न स्तर पर पहुँची

• Japan's fertility rate fell again last year to a record low, official data showed.

आधिकारिक आँकड़ों के अनुसार, पिछले वर्ष जापान की प्रजनन दर (Fertility Rate) फिर घटकर रिकॉर्ड निम्न स्तर पर पहुँच गई।

• Japan has one of the world's lowest birth rates, as well as a falling and ageing population, leading to labour shortages, a ballooning social security bill and a shrinking tax base.

जापान में दुनिया की सबसे कम जन्म दरों में से एक है, साथ ही वहाँ की जनसंख्या घट रही है और वृद्ध हो रही है, जिसके कारण श्रमिकों की कमी, बढ़ता हुआ

सामाजिक सुरक्षा व्यय तथा घटता हुआ कर आधार (Tax Base) जैसी समस्याएँ उत्पन्न हो रही हैं।

## Top 5 Countries/Regions with the Lowest Fertility Rates

Rank	Country/Region	Fertility Rate*
1	South Korea	~0.8
2	Singapore	~0.97
3	Hong Kong	~1.0
4	Macau	~1.03
5	Taiwan	~1.06

## Top 5 Countries with the Highest Fertility Rates

Rank	Country	Fertility Rate*
1	Niger	~6.6
2	Chad	~6.2
3	Somalia	~6.1
4	Democratic Republic of the Congo	~6.0
5	Central African Republic	~5.9



### Questions and Answers to the previous day's daily

- quiz:** 1. This Indian diplomat's speech at the Security Council across three meetings over two days in 1957 lasted more than eight hours. **Ans: V.K. Krishna Menon**
2. Who was Venezuela's President Hugo Chavez referring to when he said "Yesterday, the devil came here — right here. And it smells of sulphur still today." **Ans: George W. Bush**
3. Which Spanish artist painted the original 1937 masterpiece "Guernica"? **Ans: Pablo Picasso**
4. "I have come with a freedom fighter's gun in one hand and an olive branch in the other. Do not let the olive branch fall from my hand". Who said this? **Ans: Yasser Arafat**
5. This Zimbabwean President, during his General Assembly speech in 2015, declared "We are not gays". **Ans: Robert Mugabe**
6. Visual: This Soviet leader is said to have banged his shoe on his desk during a heated UN discussion in 1960. **Ans: Nikita Khrushchev**

## 04J6. QUIZ: PCS Special

### 1. V.K. Krishna Menon – The Longest Speech in UN History

- **V.K. Krishna Menon**, India's Permanent Representative to the United Nations and later Defence Minister, delivered one of the most remarkable speeches in diplomatic history during the **UN Security Council debates on Kashmir in January 1957**.
- Spread across three meetings over two days, the speech lasted for more than **eight hours**, setting a record recognized by the United Nations and Guinness World Records.
- Menon meticulously defended India's legal and constitutional position on Jammu and Kashmir, making the speech a landmark in India's diplomatic history and earning him the title "**Hero of Kashmir**."

### 3. Pablo Picasso and Guernica

- **Pablo Picasso**, one of the most influential artists of the twentieth century, painted "**Guernica**" in 1937.
- The masterpiece was inspired by the bombing of the Spanish town of Guernica during the **Spanish Civil War**.
- Created in black, white and grey tones, the painting depicts human suffering, destruction and the horrors of war.
- Today, *Guernica* is regarded as a universal symbol of peace and resistance against violence.
- It remains one of the most celebrated anti-war artworks and is displayed at the **Museo Reina Sofía in Madrid, Spain**.

### 4. Yasser Arafat's Olive Branch Speech

- The famous statement, "**I have come with a freedom fighter's gun in one hand and an olive branch in the other. Do not let the olive branch fall from my hand**," was delivered by **Yasser Arafat** at the **United Nations General Assembly on 13 November 1974**.
- As Chairman of the **Palestine Liberation Organization (PLO)**, Arafat used the speech to seek international recognition of Palestinian aspirations and statehood.
- The olive branch symbolized peace, while the gun represented resistance.

### 5. Robert Mugabe's "We Are Not Gays" Statement

- During his speech at the **UN General Assembly in September 2015**, Zimbabwean President **Robert Mugabe** declared, "We are not gays," while criticizing Western countries for linking aid and international cooperation to LGBTQ+ rights.
- Mugabe had long been known for his opposition to same-sex marriage and LGBTQ+ rights, which he argued were inconsistent with Zimbabwe's cultural values.
- The remark generated significant international debate and criticism, highlighting the broader global divide over human rights, cultural sovereignty and social values in international politics.



## Denmark PM presents new govt., with majority of women Ministers



REUTERS

**PCS**  
Denmark's Prime Minister Mette Frederiksen on Wednesday presented her new Cabinet, which for the first time in Danish history included more women than men. Eleven out of the 21 Ministers were women and the list also included familiar names from Ms. Frederiksen's former government. AFP

## 04J6. Denmark PM presents new govt., with majority of women Ministers

डेनमार्क की प्रधानमंत्री ने नई सरकार प्रस्तुत की, जिसमें महिला मंत्रियों का बहुमत है

• **Denmark's Prime Minister Mette Frederiksen** on Wednesday presented her new Cabinet, which for the first time in Danish history included more women than men.

डेनमार्क की प्रधानमंत्री मेटे फ्रेडरिकसेन ने बुधवार को अपनी नई कैबिनेट प्रस्तुत की, जिसमें डेनमार्क के इतिहास में पहली बार पुरुषों की तुलना में अधिक महिलाएँ शामिल हैं।

• **Eleven out of the 21 Ministers were women** and the list also included familiar names from Ms. Frederiksen's former government.

21 मंत्रियों में से 11 महिलाएँ हैं और इस सूची में सुश्री फ्रेडरिकसेन की पूर्व सरकार के परिचित नाम भी शामिल हैं।

## Praggnanandhaa does the double over Carlsen

Victory with black pieces takes the Indian GM to the third spot; So outsmarts Keymer to stay on top; Firouzja gets the better of Gukesh; Assaubayeva beats Divya to move closer to the title

**PCS**  
C. Shyam Sundar  
OSLO

Indian Grandmaster R. Praggnanandhaa did it again. He beat the World No.1 Magnus Carlsen for a second time in the same tournament, outwitting him in the eighth round of Norway Chess, in the classical game, to close in on the leader Wesley So.

The stunning victory with black pieces on Tuesday at Deichman Bjorvika gave Praggnanandhaa three points and took him to third spot with 12 points, two behind So.

Frenchman Alireza Firouzja occupied the second place with 13 points, after he handed World champion D. Gukesh his third defeat of the tournament.

So pulled away from the field by outsmarting Vincent Keymer in the Armageddon after the classical match ended in a stalemate.

"It's more important for the tournament that I get this win than thinking that it's Magnus. Of course, it's great to do it against Magnus, but I think winning any game at this stage of the tournament is good," a delighted Praggnanandhaa



**Rare feat:** Pragg became one of the very few players to have beaten Carlsen thrice in classical chess. NORWAY CHESS

said after making it two out of two (in classical games) in the tournament, which Carlsen has dominated like no other winning it seven times.

The 20-year-old Indian GM had beaten the Norwegian ace in the third round, before doing the double.

With this win, Praggnanandhaa became one of the very few players to have beaten the 35-year-old Carlsen thrice in classical chess.

Carlsen had started the

tournament with a loss to Firouzja before sinking to defeats against Pragg and So subsequently.

In the women's event, Kazakh GM Bibisara Assaubayeva inched closer to winning the title, pipping Indian GM Divya Deshmukh in a game which she was fighting to survive.

She has opened up a five-point lead over Ukraine's Anna Muzychuk, who fell in the Armageddon to Koneru Humpy.

The matches will res-

ume on Thursday after Wednesday's rest day.

**The results: Eighth round:**  
**Open:** Alireza Firouzja (Fra, 13) bt D. Gukesh (8), Magnus Carlsen (Nor, 9) lost to R. Praggnanandhaa (12), Wesley So (USA, 14) bt Vincent Keymer (Ger, 10).

**Women:** Zhu Jiner (Chn, 10) bt Ju Wenjun (Chn, 9), Divya Deshmukh (10) lost to Bibisara Assaubayeva (Kaz, 15.5), Anna Muzychuk (Ukr, 10.5) lost to Koneru Humpy (8) in Armageddon.

(The writer is in Oslo at the invitation of Norway Chess).

## 04J6. Praggnanandhaa does the double over Carlsen

प्रज्ञानानंदा ने कार्लसन पर दूसरी बार भी जीत दर्ज की

• **Victory with black pieces** takes the Indian GM to the **third spot**.

काले मोहरों से मिली जीत ने भारतीय ग्रैंडमास्टर को तीसरे स्थान पर पहुँचा दिया।

• **Firouzja gets the better of Gukesh.**

फिरूज़जा ने गुकेश को पराजित किया।

• He beat **World No.1 Magnus Carlsen** for a second time in the same tournament.

उन्होंने इसी टूर्नामेंट में दूसरी बार विश्व नंबर-1 मैग्नस कार्लसन को हराया।



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<b>GS Paper 1: Geography</b>		<b>04 June 2026</b>
<b>TOPICS COVERED</b>		
<b>04J6</b>	<b>Cabinet gives its nod for new coastal highway in Odisha</b> कैबिनेट ने ओडिशा में नए तटीय राजमार्ग को मंजूरी दी	
<b>04J6</b>	<b>QUIZ</b>	
<b>04J6</b>	<b>Iran strikes Kuwait's main airport, Bahrain base after U.S. hits Qeshm</b> अमेरिका द्वारा क़ेश्म पर हमले के बाद ईरान ने कुवैत के मुख्य हवाई अड्डे और बहरीन स्थित अड्डे पर हमला किया	
<b>04J6</b>	<b>Romania wants to boost air defence after drone strike blamed on Russia</b> रूस पर आरोपित ड्रोन हमले के बाद रोमानिया वायु रक्षा मजबूत करना चाहता है	

# Cabinet gives its nod for new coastal highway in Odisha

GS I: Geography

Press Trust of India  
NEW DELHI

The Union Cabinet on Wednesday approved the construction of a new coastal highway from Rameshwar to Paradeep in Odisha at a total project cost of ₹8,300.79 crore.

The new coastal highway will be constructed on a hybrid annuity model, in two packages, with a combined total length of 160.18 km, an official statement said. It will pass through Khurda, Puri, Kendrapada and Jagatsinghpur districts of Odisha. The project will enhance regional mobility and promote socio-economic development, the statement said, while also leading to substantial reductions in fuel consumption, carbon emissions, and vehicle operating costs.

The project was among the announcements made by Union Minister of Information and Broadcasting Ashwini Vaishnaw in New Delhi on Wednesday.

The Union Cabinet also

**It also approved two National Highway widening projects in Telangana at a cost of ₹7,597.16 crore**

gave the green signal for two major National Highway widening projects in Telangana spanning a total length of 190.76 km at a cost of ₹7,597.16 crore.

The widening of the Armoor-Jagtial-Mancherial Section of NH-63 will be on a hybrid annuity model and the Jagtial-Karimnagar Section of NH-563 will be carried out on a build-operate-transfer model to the four-lane standard in Telangana.

Upon completion, the official statement said, travel time is expected to reduce by about an hour and 30 minutes between Armoor and Mancherial and by about 45 minutes between Jagtial and Karimnagar, while providing safe, fast, and uninterrupted connectivity for both passenger and freight traffic.

## 04J6. Cabinet gives its nod for new coastal highway in Odisha

कैबिनेट ने ओडिशा में नए तटीय राजमार्ग को मंजूरी दी

The Union Cabinet on Wednesday approved the construction of a new coastal highway from Rameshwar to Paradeep in Odisha at a total project cost of ₹8,300.79 crore.

बुधवार को केंद्रीय मंत्रिमंडल ने ओडिशा में रामेश्वर से पारादीप तक एक नए तटीय राजमार्ग के निर्माण को ₹8,300.79 करोड़ की कुल परियोजना लागत पर मंजूरी दी।

The widening of the Armoor-Jagtial-Mancherial Section of NH-63 will be on a hybrid annuity model.

एनएच-63 के आर्मूर-जगतियाल-मंचेरियल खंड का चौड़ीकरण हाइब्रिड एन्युटी मॉडल पर किया जाएगा।

The Jagtial-Karimnagar Section of NH-563 will be carried out on a build-operate-transfer model to the four-lane standard in Telangana.

एनएच-563 के जगतियाल-करिमनगर खंड का विकास तेलंगाना में बिल्ड-ऑपरेट-ट्रांसफर मॉडल के तहत चार-लेन मानक के अनुसार किया जाएगा।

## 04J6. QUIZ

Answers to to May 28 quiz:

- Gulf in Arctic Russia at end of longest unobstructed sea route - **Ans: Khatanga**
- Point on land farthest from any coastline - **Ans: Continental pole of inaccessibility**
- Most remote island, a South Atlantic Norwegian territory - **Ans: Bouvet Island**
- Name of underwater channel adept at transmitting sound - **Ans: SOFAR**
- Line marking belt of highest mean surface temperature - **Ans: Thermal equator**

Visual: Null Island



### 1. Khatanga Gulf – End of the Longest Unobstructed Sea Route

- **Khatanga Gulf** is located on the northern coast of Siberia in Arctic Russia, where the **Khatanga River** flows into the **Laptev Sea**, a marginal sea of the Arctic Ocean.
- It gained attention in geographical studies because it lies near one end of the world's longest theoretically unobstructed straight-line sea route, stretching across vast oceanic expanses without intersecting land.
- The region is characterized by extreme Arctic conditions, seasonal sea ice, and strategic importance for Russia's Northern Sea Route, which is becoming increasingly significant due to Arctic warming and expanding maritime navigation opportunities.

### 2. Continental Pole of Inaccessibility – Farthest Point from Any Coastline

- The **Continental Pole of Inaccessibility** refers to the location on Earth that is farthest from any ocean or coastline.
- It is situated in northwestern China, near the border region of the **Xinjiang Uyghur Autonomous Region** and Kazakhstan.
- This point lies approximately 2,645 kilometres from the nearest coastline, making it the most inland location on the planet.
- The concept is widely used in geography to study continentality, climate, and remoteness.
- Due to its great distance from oceans, the region experiences extreme temperature variations and a highly continental climate.

### 3. Bouvet Island – The World's Most Remote Island

- **Bouvet Island** is an uninhabited volcanic island located in the South Atlantic Ocean and is administered as a dependent territory of **Norway**.
- Situated roughly midway between Antarctica and southern Africa, it is often regarded as the **most remote island in the world because no permanently inhabited landmass exists within thousands of kilometres**.
- About 93 percent of the island is covered by glaciers, making human settlement extremely difficult.
- Owing to its ecological significance and pristine environment, Bouvet Island has been designated as a protected nature reserve by Norway.



### 4. SOFAR Channel – Nature's Underwater Sound Highway

- The **SOFAR (Sound Fixing and Ranging) Channel** is a horizontal layer in the ocean where sound waves can travel extremely long distances with minimal energy loss.
- This phenomenon occurs because variations in water temperature and pressure create a zone of minimum sound velocity, causing sound waves to refract back toward the channel's centre.
- The SOFAR Channel plays a crucial role in oceanographic research, submarine communication, marine mammal studies, and underwater monitoring systems.
- Scientists use it to track underwater events, including earthquakes, volcanic eruptions, and whale migrations across vast ocean basins.

### 5. Thermal Equator – Belt of Highest Mean Surface Temperature

- The **Thermal Equator** is an imaginary line connecting places that experience the highest average annual temperatures on Earth.



- Unlike the geographic equator, it shifts northward and southward with seasonal changes in solar heating and land–sea distribution.
- It generally lies north of the geographic equator because the Northern Hemisphere contains larger landmasses that heat more rapidly than oceans.
- The thermal equator explains global temperature patterns, pressure belts, monsoon circulation, and the seasonal migration of climatic zones.

## Iran strikes Kuwait's main airport, Bahrain base after U.S. hits Qeshm

Embassy of India in Kuwait says an Indian national was killed in the strike; 63 others wounded; the attack occurred soon after the airport had reopened following a months-long closure; U.S. targeted Iran's ground control station on Qeshm Island

GS I: Geography  
Associated Press  
DUBAI

**K**uwait briefly shut its main airport on Wednesday after Iranian drones heavily damaged a passenger terminal, killed one person and wounded dozens – the latest in back-and-forth attacks by Iran and the U.S. that test a fragile ceasefire.

The strike reinforced the risks to residents and travellers in Gulf countries that had considered themselves relative havens before the war, now in its fourth month.

A spokesperson for Kuwait's Defence Ministry, Brig. Gen. Saud Abdulaziz



**Unsafe haven:** Prime Minister Sheikh Ahmad al-Abdullah al-Sabah inspecting the Kuwaiti airport after an attack on Wednesday. AFP

Al-Otaibi, said "a number of hostile drones" targeted a passenger building at Kuwait International Airport. It had opened only on Monday after a months-

long closure because of the war.

India's embassy said the person killed was an Indian national. In a post on X, the Embassy of India in

Kuwait said it is "closely coordinating" with the Kuwaiti authorities to extend all possible support to the bereaved family.

Authorities said 63 people were wounded, including passengers and workers, and some suffered serious injuries.

Kuwait's Defence Ministry said it destroyed over a dozen missiles and a similar number of drones from Iran. The airport partially reopened later, with Kuwait Airways flights resuming at a different terminal, according to civil aviation authorities.

The Foreign Ministry said Kuwait will "neither accept nor tolerate" the at-

tacks and was kicking out two Iranian diplomats.

The U.S. military said U.S. and Bahraini forces intercepted missiles aimed at the Gulf kingdom, home to the U.S. Navy's 5th fleet.

Iran's paramilitary Revolutionary Guard acknowledged that it targeted the headquarters of the 5th Fleet and U.S. military facilities in another country, but did not name Kuwait.

The U.S. military also said it launched strikes on an Iranian military ground control station on Qeshm Island in the Strait of Hormuz.

Iran's Foreign Ministry condemned the U.S. strikes on the island.

**04J6. Iran strikes Kuwait's main airport, Bahrain base after U.S. hits Qeshm**  
अमेरिका द्वारा केशम पर हमले के बाद ईरान ने कुवैत के मुख्य हवाई अड्डे और बहरीन स्थित अड्डे पर हमला किया

- The **U.S.** targeted Iran's ground control station on **Qeshm Island**.  
अमेरिका ने केशम द्वीप पर ईरान के ग्राउंड कंट्रोल स्टेशन को निशाना बनाया।



# Romania wants to boost air defence after drone strike blamed on Russia

GS I: Geography  
Agence France-Presse  
PARIS

Romania's Foreign Minister said on Wednesday her country needed to bolster its air defences with the help of its allies, days after two people were wounded in a drone strike on an apartment block close to the Ukraine border that was blamed on Russia.

Oana Toiu said there was no suggestion yet that Russia had intentionally targeted the 10-storey block in Galati last Friday, but Moscow bore "responsibility" for the strike over four years into the invasion of its neighbour.

"It is quite clear that we need to increase air monitoring and air defence cap-



Romania's Foreign Minister Oana Toiu says Bucharest is in talks with NATO on boosting its capabilities in the short term. REUTERS

abilities throughout the eastern flank (of NATO)," she told reporters in Paris.

"But for us the pressure is even higher," she said, adding that NATO and EU member Romania had had a long border with Ukraine that stretched along the

Danube river and out into the Black Sea.

Ms. Toiu said it would be one to two more years before new equipment arrived from Romania's own defence procurement.

But she added Bucharest was in talks with NATO

on boosting its capabilities in the short term, as well as working with Kyiv on a joint anti-drone air defence project.

She said Romania had been aware of an incoming drone on May 29 but air force pilots decided not to shoot it down out of concern that an air defence missile could itself cause damage on the ground.

While this was the first such incident to cause casualties inside Romania, Ms. Toiu said there had been more than 40 instances of drone incursions inside the territory.

"There is a common understanding that we need to have better air defence of the eastern flank and not just Romania," she said.

## 04J6. Romania wants to boost air defence after drone strike blamed on Russia रूस पर आरोपित ड्रोन हमले के बाद रोमानिया वायु रक्षा मजबूत करना चाहता है

- She added that **NATO** and **EU** member Romania had a long border with **Ukraine** that stretched along the **Danube River** and out into the **Black Sea**.  
उन्होंने कहा कि नाटो और यूरोपीय संघ (EU) का सदस्य रोमानिया, यूक्रेन के साथ लंबी सीमा साझा करता है, जो डेन्यूब नदी के साथ-साथ काला सागर तक फैली हुई है।

<b>GS Paper II: Polity</b>		<b>04 June 2026</b>
<b>TOPICS COVERED</b>		
<b>04J6</b>	<b>Why judicial holidays are necessary</b> न्यायिक अवकाश क्यों आवश्यक हैं	



# Why judicial holidays are necessary

GS II: Polity

**T**he debate over judicial holidays has resurfaced in recent weeks, with critics questioning why courts observe extended breaks. The assumption is that judges, like most professionals, step away from work during these periods. That assumption is largely wrong. For most judges, a holiday is rarely a holiday in any conventional sense.

The public sees only the visible part of the work: judges presiding over courtrooms, hearing arguments, questioning lawyers and delivering orders. What they do not see is the considerably longer phase that begins after court hours, when judges return home to write judgments. This work often stretches past midnight. Each judgment requires close analysis of facts, application of legal principles, reference to precedent, and precision in language, since every word carries legal weight.

A single decision can affect lives, businesses, reputations and personal liberty.

## A time for uninterrupted work

This pattern is not unique to India. Justice Ruth Bader Ginsburg, who was a judge of the United States Supreme Court for 27 years, was known to arrive at her chambers shortly after lunch and work late into the night. Her former law clerk Goodwin Liu, now a Justice of the California Supreme Court, has spoken of receiving voicemails from her at two or three in the morning, when she was at the height of her writing. From oral argument to majority opinion, she averaged 60 days, the fastest pace on her Bench. When she underwent surgery for colon cancer in 1999, and again for pancreatic cancer in 2009, she scheduled her procedures so as not to miss a single day on the Bench.

In India, the workload is no less demanding. Justice D.Y. Chandrachud, during his eight-year tenure in the Supreme Court, authored over 600



**Kapil Sibal**

Senior lawyer and Member of the Rajya Sabha

A judge's duty does not pause when courts close. It continues through late night drafting, early morning preparation, and constant engagement with the law

judgments and sat on more than 1,200 Benches before retiring as the 50th Chief Justice of India in November 2024. Few professions outside the Bench demand such sustained intellectual output year after year, and that too with little public recognition of the labour involved.

The mornings begin no easier. Long before court assembles, judges are reading voluminous case files, studying precedents and preparing for the day's hearings. By the time proceedings open, hours of unseen work have already gone in.

Judicial breaks, then, are not periods of rest but working windows. During these breaks, judges complete pending judgments, study lengthy case records and prepare for matters of constitutional importance. With case backlogs continuing to rise across courts, these are often the only stretches available for uninterrupted work.

Families bear much of the strain. Spouses and children of judges describe a familiar pattern: even on holidays, judges are occupied with their laptops, files or video calls with law clerks. The time supposed to be shared in company with their family is regularly interrupted by judicial work. Thus, judicial service is not only an individual commitment. It becomes a shared one for the household.

## Not as lucrative

The economic side of the Bench is also not discussed often. While judges receive a structured and respectable salary, it is not comparable to what senior lawyers earn at the top end of the bar. A senior advocate may earn in a single hearing what a judge earns over several months. Judges, in turn, carry the greater burden of decision-making and accountability.

Many take the Bench after giving up lucrative practices, choosing service to the nation over personal financial gain.

The pressures do not end with

the workload. Judicial decisions are scrutinised publicly and legally. Judges must remain neutral and detached, even when the cost of doing so is high.

## The unseen cost

In his autobiography, *Neither Roses Nor Thorns*, Justice H.R. Khanna recalled the night before he delivered his lone dissent in the *ADM Jabalpur* case during the Emergency. Sitting in the moonlight in his compound with the Ganges flowing in front of them, he turned to his younger sister and said, "I have prepared a judgment which is going to cost me the Chief Justiceship of India." He was right. The following year he was superseded for the top post by Justice M.H. Beg, who had ruled with the majority, and resigned soon after.

His dissent, eventually vindicated when the Supreme Court overruled *ADM Jabalpur* in the *Puttaswamy* verdict of 2017, is now remembered as one of the bravest decisions in Indian judicial history.

The dedication asked of a judge does not end with retirement either. Lord Denning, whom Margaret Thatcher described as probably the greatest English judge of modern times, served on the Bench for 38 years and delivered around 2,000 reported judgments before retiring at 83. He continued writing books on the law till his 100th birthday.

Closer home, Justice V.R. Krishna Iyer kept producing books, articles and lectures on jurisprudence long after his retirement from the Supreme Court, almost until his death at 99 in 2014.

The debate on judicial holidays deserves a more informed footing. A judge's duty does not pause when courts close. It continues through late night drafting, early morning preparation, and constant engagement with the law.

Before questioning the system, it may help to first understand what it actually asks of those who serve in it.

## 04J6. Why judicial holidays are necessary

### न्यायिक अवकाश क्यों आवश्यक हैं

- In his autobiography, **Neither Roses Nor Thorns**, Justice H.R. Khanna recalled the night before he delivered his lone dissent in the **ADM Jabalpur case** during the Emergency. अपनी आत्मकथा **Neither Roses Nor Thorns** में न्यायमूर्ति एच.आर. खन्ना ने उस रात का उल्लेख किया है जब उन्होंने आपातकाल के दौरान एडीएम जबलपुर मामले में अपना एकमात्र असहमति निर्णय देने से पूर्व समय बित्ताया था।



TELEGRAM CHANNEL: <https://t.me/patrioticIAS>

YOUTUBE CHANNEL: <https://www.youtube.com/@PatrioticIAS>

CONTACT: 9971932488



- The following year he was **superseded for the top post by Justice M.H. Beg**, who had ruled with the majority, and resigned soon after.  
अगले वर्ष बहुमत के पक्ष में निर्णय देने वाले न्यायमूर्ति **एम.एच. बेग** को उनसे ऊपर नियुक्त कर दिया गया और उसके तुरंत बाद उन्होंने इस्तीफा दे दिया।
- His dissent, eventually vindicated when the Supreme Court overruled **ADM Jabalpur in the Puttaswamy verdict of 2017**, is now remembered as one of the bravest decisions in Indian judicial history.  
उनकी असहमति, जिसे अंततः **2017 के पुट्टास्वामी निर्णय** में सर्वोच्च न्यायालय द्वारा **एडीएम जबलपुर निर्णय** को निरस्त किए जाने पर मान्यता मिली, आज भारतीय न्यायिक इतिहास के सबसे साहसिक निर्णयों में से एक मानी जाती है।
- Closer home, **Justice V.R. Krishna Iyer kept producing books, articles and lectures on jurisprudence long after his retirement from the Supreme Court**, almost until his death at **99** in 2014.  
भारत में न्यायमूर्ति **वी.आर. कृष्ण अय्यर** ने सर्वोच्च न्यायालय से सेवानिवृत्ति के बाद भी विधिशास्त्र पर पुस्तकें, लेख और व्याख्यान लिखना जारी रखा, लगभग अपनी **99 वर्ष** की आयु में 2014 में मृत्यु तक।

GS Paper II: Governance		04 June 2026
TOPICS COVERED		
04J6	After a long wait, Tamil Nadu gets a regular DGP लंबे इंतजार के बाद तमिलनाडु को नियमित डीजीपी मिला	
04J6	Is shoot-to-disable the new normal? क्या निष्क्रिय करने के लिए गोली चलाना नया सामान्य बन गया है?	



# After a long wait, Tamil Nadu gets a regular DGP

GS II: Governance

S. Vijay Kumar  
CHENNAI

After months of delay caused by litigation and repeated postponements, Tamil Nadu finally has a regular Director-General of Police and Head of the Police Force (DGP/HoPF).

On Wednesday, Mahesh Kumar Aggarwal, a 1994-batch IPS officer, assumed charge as the DGP, nearly 10 months after the vacancy arose.

Dr. Aggarwal was given a guard of honour at the DGP's office in Chennai. Later, he met Governor Rajendra Vishwanath Arlekar at the Lok Bhavan, and Chief Minister C. Joseph Vijay at the Secretariat.

Dr. Aggarwal was on Central government deputation, and was serving as Special Director-General of the Border Security Force. He had served in several important positions, including that of Chennai City Police Commissioner.

## Prime focus

After assuming charge as the DGP, Dr. Aggarwal told the media that prime importance would be given to curbing the drug menace, preventing crimes against women and children, and maintaining law and order.

Dr. Aggarwal succeeds Sandeep Rai Rathore, who was appointed to the post by the Election Commission of India (EC) in the run-up to the Assembly election in April.

With about six years of service left, Dr. Aggarwal is the youngest police officer



Mahesh Kumar Aggarwal

to occupy the top post, and will have a minimum tenure of two years under the Supreme Court's guidelines in the Prakash Singh case. There is, however, no bar on his continuing in the post until superannuation.

## Protracted process

The appointment brings to a close a protracted process marked by administrative delays, legal challenges, and disagreements between the State government and the Union Public Service Commission (UPSC).

The post should have ideally been filled on September 1, 2025, following the retirement of the then DGP, Shankar Jiwai. However, the process was delayed for multiple reasons.

Going by the Supreme Court guidelines, the State government is required to initiate the selection process well in advance, and forward a list of eligible DGP-rank officers to the UPSC at least six months before the vacancy arises. In this case, the proposal was reportedly sent only a few days before Mr. Jiwai's retirement in the last week of August 2025.

## 04J6. After a long wait, Tamil Nadu gets a regular DGP

लंबे इंतजार के बाद तमिलनाडु को नियमित डीजीपी मिला

- With about **six years of service** left, Dr. Aggarwal is the youngest police officer to occupy the top post, and **will have a minimum tenure of two years under the Supreme Court's guidelines in the Prakash Singh case.**

लगभग छह वर्ष की सेवा शेष होने के साथ, डॉ. अग्रवाल इस शीर्ष पद पर पहुंचने वाले सबसे युवा पुलिस अधिकारी हैं और प्रकाश सिंह मामले में सुप्रीम कोर्ट के दिशानिर्देशों के अनुसार उनका न्यूनतम कार्यकाल दो वर्ष होगा।

- There is, however, no bar on his continuing in the post until **superannuation.**

हालाँकि, उनके सेवानिवृत्ति तक इस पद पर बने रहने पर कोई रोक नहीं है।

- Going by the **Supreme Court guidelines**, the State government is required to initiate the selection process well in advance, and forward a list of eligible **DGP-rank officers to the UPSC at least six months before the vacancy arises.**

सुप्रीम कोर्ट के दिशानिर्देशों के अनुसार, राज्य सरकार को चयन प्रक्रिया काफी पहले शुरू करनी होती है और रिक्ति उत्पन्न होने से कम से कम छह महीने पहले पात्र डीजीपी रैंक अधिकारियों की सूची UPSC को भेजनी होती है।



# Is shoot-to-disable the new normal?

Why is Operation Langda a pragmatic strategy? Has a sporadic enforcement tactic become a routine practice? What makes it legally defensible? To what extent does the State endorse half-encounters? Is it a self-sustaining system? Why are piecemeal reforms insufficient?

GS II: Governance

## EXPLAINER

G.S. Bajpai  
Vibhuti Sharma

### The story so far:

The "leg-shot" doctrine appears to have become the new normal in Uttar Pradesh, emerging as a genuine crime-control model that Herbert Packer advocated in 1968, in his work – *The Limits of the Criminal Sanction*. Between 2017 and 2025, the State Police recorded over 16,000 encounter operations. In about 97% of cases, the accused survived with a bullet wound to the leg. At this scale, the question is no longer whether something unusual happened, but what it means when the unusual becomes routine.

### What is Operation Langda?

A motorcycle is intercepted on a highway. The accused attempts to flee. Shots are fired. He is injured, typically in the leg, and taken into custody. This sequence, which now recurs across the State, is now known as "Operation Langda", or "half-encounters", from the Hindi word *langda* (lame), a policing methodology cultivated by the Uttar Pradesh Police since 2017 under its "zero-tolerance" framework. What may initially have appeared as a sporadic enforcement tactic has, over time, acquired the characteristics of a routine practice governed by a dual logic of incapacitation and punishment.

Refined through repetition, encounters have evolved into a recognisable policing pattern marked by targeted leg injury, standardised reporting, official endorsement and overt punitive logic.

### How are half-encounters structured?

A study by the Centre for Criminology and Victimology at National Law University Delhi, based on official U.P. Police data and 100 verified encounter cases (January 2025–May 2026), found that these incidents follow a



In Uttar Pradesh, encounters have evolved into a recognisable policing pattern marked by targeted leg injury, standardised reporting, official endorsement and overt punitive logic. P11

near-identical sequence: intelligence received, suspect intercepted, alleged attempt to flee or fire, police response in self-defence, gunshot to the leg, arrest, and recovery of a locally made pistol. This seven-step sequence is the standardised operational template of Operation Langda, repeated across more than 30 districts over nearly a decade.

What distinguishes the practice is its focus on incapacitation rather than lethality. By visibly disabling accused persons, it functions as both a disciplinary mechanism and an assertion of state authority. The standardised language of police reports further normalises this extra-procedural punishment by presenting it as routine law enforcement. Nearly 80% of 100 cases in the micro-level dataset used either "retaliation" or "self-defence" as the major justificatory framing, no matter what the alleged offence is.

The consistency of this framing across widely different offences suggests a standardised narrative template rather than case-specific accounts. This helps

reproduce the practice across districts as a recognisable policing methodology.

In most of the 100 cases examined, media reports reproduced the police version without critical scrutiny. Critical coverage emerged only when direct counter-evidence challenged the official narrative. As a result, these incidents entered the news cycle largely as routine law-and-order events, that functioned as transmission rather than scrutiny.

The emergence of this methodology must be understood against the institutional constraints faced by the Uttar Pradesh Police. Prior to 2017, conviction rates in several categories of violent crimes were below 20%, while investigative capacity lagged far behind caseloads. In this environment, 'half-encounters' present a pragmatic alternative.

Crucially, shooting to disable rather than kill makes the practice more legally defensible. The accused survives to be produced in court, the officer can claim self-defence, and the state records an arrest rather than a death. This

distinguishes the U.P. model from the typical "fake encounter" tradition. It is also a reason why the practice continues to enjoy official support. State data show declines in crimes such as dacoity and robbery, but these gains do not address concerns over due process and the erosion of the rule of law.

Uttar Pradesh publicly treats encounter statistics as indicators of law-and-order achievements. Through official recognition and accelerated promotions, an exceptional tactic has become an accepted metric of policing performance. The incentive structure is reflected in the data: 2,739 encounter operations were recorded in 2025 alone – the highest annual figure in the dataset.

This official endorsement contrasts sharply with established judicial standards. In *People's Union for Civil Liberties v. State of Maharashtra (2014)*, the Supreme Court laid down sixteen principles and mandated an independent inquiry in every case. While these remain the legal benchmark, they have not been systematically applied in the State.

In January 2026, the Allahabad High Court observed that "half-encounter" practices were often driven by official rewards and promotions. The court reiterated that the power to punish belongs exclusively to the judiciary.

### What makes reform so difficult?

The central problem is that "Operation Langda" is that it operates as a self-sustaining system. Political endorsement, professional incentives, media transmission and the chronic weaknesses of the criminal justice process do not merely tolerate the practice, they reproduce it. Piecemeal reforms will not be enough. What is most striking is how a practice that sits outside legal norms has, through routine and reward, become part of how the state governs. Any durable reform must dismantle the interlocking incentives and channels that produce it.

G.S. Bajpai is the Vice Chancellor of the National Law University, Delhi. Vibhuti Sharma is an Academic Fellow, NLU Delhi. Views are personal.

## THE GIST

Encounters have evolved into a recognisable policing pattern marked by targeted leg injury, standardised reporting, official endorsement and overt punitive logic.

The consistency of this framing across widely different offences suggests a standardised narrative template rather than case-specific accounts.

The emergence of this methodology must be understood against the institutional constraints faced by the Uttar Pradesh Police.

The central problem is that 'Operation Langda' it operates as a self-sustaining system.

## 04J6. Is shoot-to-disable the new normal?

क्या निष्क्रिय करने के लिए गोली चलाना नया सामान्य बन गया है?

- Between 2017 and 2025, the State Police recorded over 16,000 encounter operations. 2017 से 2025 के बीच राज्य पुलिस ने 16,000 से अधिक मुठभेड़ अभियानों का अभिलेखन किया।
- In about 97% of cases, the accused survived with a bullet wound to the leg. लगभग 97 प्रतिशत मामलों में आरोपी पैर में गोली लगने के बावजूद जीवित बच गए।
- At this scale, the question is no longer whether something unusual happened, but what it means when the unusual becomes routine. इस स्तर पर प्रश्न यह नहीं रह जाता कि कोई असामान्य घटना हुई या नहीं, बल्कि यह कि जब असामान्य घटनाएँ नियमित हो जाएँ तो उसका क्या अर्थ है।

## What is Operation Langda?

ऑपरेशन लंगड़ा क्या है?

- Prior to 2017, conviction rates in several categories of violent crimes were below 20%, while investigative capacity lagged far behind caseloads. 2017 से पूर्व अनेक प्रकार के हिंसक अपराधों में दोषसिद्धि दर 20 प्रतिशत से कम थी, जबकि जाँच क्षमता मामलों की संख्या की तुलना में बहुत पीछे थी।
- In this environment, 'half-encounters' present a pragmatic alternative. ऐसे वातावरण में 'हाफ-एनकाउंटर' एक व्यावहारिक विकल्प के रूप में प्रस्तुत किए जाते हैं।



- Crucially, shooting to disable rather than kill makes the practice more legally defensible. महत्वपूर्ण रूप से, मृत्यु कारित करने के बजाय आरोपी को अक्षम बनाने हेतु गोली चलाना इस पद्धति को विधिक दृष्टि से अधिक बचावयोग्य बनाता है।
- The accused survives to be produced in court, the officer can claim **self-defence**, and the state records an arrest rather than a death. आरोपी जीवित रहता है और उसे न्यायालय में प्रस्तुत किया जा सकता है, अधिकारी **आत्मरक्षा** का दावा कर सकता है तथा राज्य मृत्यु के बजाय गिरफ्तारी का अभिलेखन करता है।
- State data show declines in crimes such as **dacoity** and **robbery**, but these gains do not address concerns over **due process** and the erosion of the **rule of law**. राज्य के आँकड़े **डकैती** और **लूट** जैसे अपराधों में कमी दर्शाते हैं, किन्तु ये उपलब्धियाँ **विधिक प्रक्रिया** तथा **कानून के शासन** के क्षरण से संबंधित चिंताओं का समाधान नहीं करतीं।

### Policing performance and judicial standards

#### पुलिस प्रदर्शन और न्यायिक मानदंड

- Uttar Pradesh publicly treats encounter statistics as indicators of law-and-order achievements. उत्तर प्रदेश सार्वजनिक रूप से मुठभेड़ संबंधी आँकड़ों को कानून-व्यवस्था की उपलब्धियों के संकेतक के रूप में प्रस्तुत करता है।
- In **People's Union for Civil Liberties v. State of Maharashtra (2014)**, the Supreme Court laid down **sixteen principles** and mandated an independent inquiry in every case. **पीपुल्स यूनियन फॉर सिविल लिबर्टीज बनाम महाराष्ट्र राज्य (2014)** मामले में सर्वोच्च न्यायालय ने **सोलह सिद्धांत** निर्धारित किए तथा प्रत्येक मामले में स्वतंत्र जाँच को अनिवार्य बनाया।
- While these remain the legal benchmark, they have not been systematically applied in the State. यद्यपि ये सिद्धांत अभी भी विधिक मानक बने हुए हैं, किन्तु राज्य में उनका व्यवस्थित रूप से अनुप्रयोग नहीं किया गया है।

GS Paper III: Economy		04 June 2026
TOPICS COVERED		
04J6	U.S. moots 12.5% tariff on India for failure to enforce 'forced labour' regulations भारत द्वारा 'जबरन श्रम' नियमों को प्रभावी ढंग से लागू न करने पर अमेरिका ने 12.5% टैरिफ का प्रस्ताव रखा	
04J6	Base and framework आधार और रूपरेखा	
04J6	How India scaled its startup industry from 2016 to 2025 भारत ने 2016 से 2025 के बीच अपने स्टार्टअप उद्योग का विस्तार कैसे किया	
04J6	Cabinet approves ₹10,000 cr. ATF price stabilisation fund कैबिनेट ने ₹10,000 करोड़ के ATF मूल्य स्थिरीकरण कोष को मंजूरी दी	
04J6	Wheat procurement surges 17% to 35 million tonnes, exceeds 2026-27 season goal गेहूं खरीद 17% बढ़कर 35 मिलियन टन पहुँची, 2026-27 सीजन का लक्ष्य पार	
04J6	RBI debunks reports on gold sale, says reserves are 'steady at 880.52 tonnes' आरबीआई ने सोना बेचने की खबरों का खंडन किया, कहा भंडार '880.52 टन पर स्थिर' है	



04J6	<b>S. America's stealthy ascent to key crude oil swing supplier</b> कच्चे तेल के प्रमुख संतुलनकारी आपूर्तिकर्ता के रूप में दक्षिण अमेरिका का शांत उदय
04J6	<b>AI unlikely to be the demand booster that copper bulls expect</b> एआई तांबा समर्थकों की अपेक्षा के अनुसार मांग बढ़ाने वाला कारक बनने की संभावना नहीं
04J6	<b>Brazil takes a historic HDI leap with focused planning and public spending</b> केंद्रित योजना और सार्वजनिक व्यय के साथ ब्राज़ील ने HDI में ऐतिहासिक छलांग लगाई

# U.S. moots 12.5% tariff on India for failure to enforce 'forced labour' regulations

GS III: Economy

T.C.A. Sharad Raghavan  
WASHINGTON

The U.S. government has proposed to levy a tariff of 12.5% on imports from 54 countries, including India, that it says have "failed to impose and effectively enforce" prohibitions on the import of goods produced using forced labour.

In response, the Indian government has said it "remains engaged" with the U.S. government regarding this development as well as the finalisation of an Interim Agreement on trade.

The office of the U.S. Trade Representative (USTR) had, in March this year, launched an investigation under Section 301 of the U.S. Trade Act of 1974 to look into whether its trade partners were taking enough steps to stop the import of goods made using forced labour.

The latest tariff announcements, as part of this investigation, are not final as yet.

Countries, including India, can submit requests to take part in public hearings by June 22, submit written comments by July 6, and participate in the public hearings on July 7.

## Tool to impose tariff

According to trade experts, investigations under Section 301 was seen as a tool for the U.S. to impose tariffs on its imports after the country's Supreme Court in February struck down the reciprocal tariffs – including the 50% levied on India – that had been imposed by U.S. President Donald Trump.

"The results of this investigation indicate that

## Blow-by-blow | A timeline of U.S. tariff-related events

- Feb. 20, 2026: U.S. Supreme Court scraps reciprocal tariffs. Trump imposes 10% 150-day tariffs on all imports
- March 2026: U.S. Trade Representative launches investigations on partners
- June 1-4: U.S. negotiators visit India to finalise trade deal
- June 2: USTR announces findings of investigations related to forced labour



- June 22: Deadline to submit requests to take part in public hearings on the case
- July 6: Deadline to submit written comments
- July 7: Date of public hearings related to the investigation
- July 24: Expiry of 10% U.S. tariffs

the acts, policies and practices of India related to the failure to impose and effectively enforce a forced labour import prohibition are unreasonable and burden or restrict U.S. commerce," the USTR report said.

The proposed tariffs put India in the same tariff bracket as several of its competitors, including Bangladesh, China, Malaysia, Thailand, and Vietnam.

The proposal by the USTR also includes a separate mechanism for textile and apparel products, under which a certain volume of imports from selected economies would be allowed to enter the U.S. at lower tariff rates.

According to Agneshwar Sen, trade policy leader at EY India, the impact of these tariffs on India could be multidimensional.

"In the near term, exporters in labour-intensive industries such as textiles, garments, carpets, leather products, and brassware could face at least an additional 10% levy under Section 301, adding to their existing tariff exposure," Mr.

Sen said. "India should therefore submit detailed written representations by July 6 and participate proactively in the July 7 public hearing to challenge these conclusions," he added.

## Govt. response

"India remains engaged with the U.S. on the matter as a part of Section 301 proceedings," the Ministry of Commerce and Industry said in a statement on Wednesday. "India is also parallelly engaged with the U.S. for finalisation of a framework agreement as was announced on February 2, 2026, and in accordance with the joint statement released on February 7, 2026," it added.

A negotiating team from the U.S. is currently in India on a three-day visit that will conclude on June 4.

According to the Ministry of Commerce and Industry, the purpose of the trip is to "finalise the details" pertaining to the Interim Agreement between the two countries and take forward the negotiations on a broader Bilateral Trade Agreement (BTA).

## 04J6. U.S. moots 12.5% tariff on India for failure to enforce 'forced labour' regulations

भारत द्वारा 'जबरन श्रम' नियमों को प्रभावी ढंग से लागू न करने पर अमेरिका ने 12.5% टैरिफ का प्रस्ताव रखा

- The **U.S. government** has proposed to levy a **tariff of 12.5%** on imports from **54 countries**, including **India**, that it says have "failed to impose and effectively enforce" prohibitions on the import of goods produced using **forced labour**.

अमेरिकी सरकार ने भारत सहित 54 देशों से आयात पर 12.5% टैरिफ लगाने का प्रस्ताव दिया है, जिनके बारे में उसका कहना है कि वे **जबरन श्रम (Forced Labour)** से बने उत्पादों के आयात पर प्रतिबंधों को लागू करने और प्रभावी रूप से प्रवर्तित करने में विफल रहे हैं।

- The office of the **U.S. Trade Representative (USTR)** had, in **March** this year, launched an investigation under **Section 301 of the U.S. Trade Act of 1974** to look into whether its trade partners were taking enough steps to stop the import of goods made using **forced labour**.

**यू.एस. ट्रेड रिप्रेजेंटेटिव (USTR)** के कार्यालय ने इस वर्ष मार्च में **यू.एस. ट्रेड एक्ट, 1974** की धारा 301 के तहत यह जांच शुरू की थी कि उसके व्यापारिक साझेदार **जबरन श्रम** से बने उत्पादों के आयात को रोकने के लिए पर्याप्त कदम उठा रहे हैं या नहीं।

- According to trade experts, investigations under **Section 301** were seen



as a tool for the U.S. to impose tariffs on its imports after the country's **Supreme Court in February** struck down the reciprocal tariffs — including the **50%** levied on India — that had been imposed by **U.S. President Donald Trump**.

व्यापार विशेषज्ञों के अनुसार, धारा 301 के तहत जांच को अमेरिका द्वारा आयात पर टैरिफ लगाने के एक साधन के रूप में देखा गया, क्योंकि देश के सर्वोच्च न्यायालय ने फरवरी में भारत पर लगाए गए 50% टैरिफ सहित डोनाल्ड ट्रंप द्वारा लगाए गए पारस्परिक टैरिफ को निरस्त कर दिया था।

- The proposed tariffs put **India** in the same tariff bracket as several of its competitors, including **Bangladesh, China, Malaysia, Thailand, and Vietnam**.

प्रस्तावित टैरिफ भारत को उसके कई प्रतिस्पर्धी देशों जैसे बांग्लादेश, चीन, मलेशिया, थाईलैंड और वियतनाम के समान टैरिफ श्रेणी में रखता है।

- “In the near term, exporters in **labour-intensive industries such as textiles, garments, carpets, leather products, and brassware** could face at least an additional **10% levy** under Section 301, adding to their existing tariff exposure,” Mr. Sen said.

श्री सेन ने कहा कि निकट भविष्य में वस्त्र, परिधान, कालीन, चमड़ा उत्पाद और पीतल उद्योग जैसे श्रम-प्रधान क्षेत्रों के निर्यातकों को धारा 301 के तहत कम से कम 10% अतिरिक्त शुल्क का सामना करना पड़ सकता है, जिससे उनका वर्तमान टैरिफ बोझ और बढ़ जाएगा।

## 04J6. Base and framework आधार और रूपरेखा

- Earlier this week, the **Ministry of Statistics and Programme Implementation** released the latest **Index of Industrial Production (IIP)**, a key barometer of India's industrial health.

इस सप्ताह के प्रारम्भ में सांख्यिकी एवं कार्यक्रम कार्यान्वयन मंत्रालय ने नवीनतम औद्योगिक उत्पादन सूचकांक (IIP) जारी किया, जो भारत के औद्योगिक स्वास्थ्य का एक प्रमुख संकेतक है।

- The **April 2026 print** assumes added significance as it is the **first release under the new 2022-23 base series** and the second full month following the **U.S.-Israeli war on Iran**.

अप्रैल 2026 का आँकड़ा विशेष महत्व रखता है क्योंकि यह नई 2022-23

आधार श्रृंखला के अंतर्गत पहला प्रकाशन है तथा ईरान पर अमेरिका-

इजराइल युद्ध के बाद का दूसरा पूर्ण माह भी है।

- Capital goods output** expanded by a robust **16% year-on-year**, reflecting the continuing effects of elevated public capital expenditure and infrastructure spending.

पूँजीगत वस्तुओं के उत्पादन में वर्ष-दर-वर्ष 16% की मजबूत वृद्धि दर्ज की गई, जो उच्च सार्वजनिक पूँजीगत व्यय तथा अवसंरचना निवेश के निरंतर प्रभाव को दर्शाती है।

- By contrast, **consumer durables output** grew only **4.3%**, while **consumer non-durables** expanded by a modest **2.8%**, suggesting that rising fuel and energy costs may be exerting pressure on household consumption.

इसके विपरीत, उपभोक्ता टिकाऊ वस्तुओं के उत्पादन में केवल 4.3% की वृद्धि हुई, जबकि उपभोक्ता गैर-टिकाऊ वस्तुओं में मात्र 2.8% की वृद्धि

### GS III: Economy

## Base and framework Industrial fundamentals have remained resilient, but are not broad-based

Earlier this week, the Ministry of Statistics and Programme Implementation released the latest Index of Industrial Production (IIP), a key barometer of India's industrial health. The April 2026 print assumes added significance as it is the first release under the new 2022-23 base series and the second full month following the U.S.-Israeli war on Iran. Industrial output grew 4.9% year-on-year in April. While direct comparisons with earlier data should be treated with caution given the extensive revisions to the index's basket, weights and methodology, the numbers suggest that India's industrial fundamentals have remained relatively resilient despite disruptions to global oil and gas supply chains. A granular reading, however, reveals that this resilience is far from broad-based. Capital goods output expanded by a robust 16% year-on-year, reflecting the continuing effects of elevated public capital expenditure and infrastructure spending. By contrast, consumer durables output grew only 4.3%, while consumer non-durables expanded by a modest 2.8%, suggesting that rising fuel and energy costs may be exerting pressure on household consumption.

More significant than the headline growth number, however, is the extensive overhaul of the IIP itself. The revised series seeks to better reflect the structure of a rapidly changing economy. New products and sectors have been incorporated and several obsolete items dropped. A fourth major sector – water supply, sewerage and waste management – has been introduced with a weight of 2.02%. The electricity category has been expanded into Electricity and Gas Supply, with its weight rising to 10.87% from 7.99% earlier. Manufacturing remains the dominant component of the index, though its weight has declined marginally to 76.06% from 77.63%. More notable is the reduction in the weight of mining and quarrying to 11.05% from 14.37%. These shifts suggest that the importance of value-added infrastructure and utility services in gauging industrial activity has expanded, while the relative significance of primary resource extraction has diminished. Together, these changes better capture India's emergence as a components and value-added manufacturing hub integrated into global supply chains. Most importantly, the government has indicated its intention to move towards a chain-linked framework with more frequent updates to sectoral weights. Such a system would allow official statistics to better keep pace with structural changes in the economy, making the IIP a more accurate and timely gauge of industrial health.



दर्ज की गई, जो यह संकेत देती है कि ईंधन एवं ऊर्जा लागत में वृद्धि घरेलू उपभोग पर दबाव डाल रही हो सकती है।

- **New products and sectors have been incorporated and several obsolete items dropped.** नई वस्तुओं और क्षेत्रों को इसमें सम्मिलित किया गया है तथा कई अप्रासंगिक मदों को हटा दिया गया है।
- **A fourth major sector — water supply, sewerage and waste management — has been introduced with a weight of 2.02%.**

एक चौथा प्रमुख क्षेत्र — जलापूर्ति, सीवरेज एवं अपशिष्ट प्रबंधन — को 2.02% भार के साथ सम्मिलित किया गया है।

- **The electricity category has been expanded into Electricity and Gas Supply, with its weight rising to 10.87% from 7.99% earlier.**

विद्युत श्रेणी का विस्तार कर उसे विद्युत एवं गैस आपूर्ति के रूप में शामिल किया गया है, जिसका भार पूर्व के 7.99% से बढ़कर 10.87% हो गया है।

- **Manufacturing remains the dominant component of the index, though its weight has declined marginally to 76.06% from 77.63%.**

विनिर्माण क्षेत्र अभी भी सूचकांक का प्रमुख घटक बना हुआ है, यद्यपि इसका भार 77.63% से घटकर 76.06% हो गया है।

- More notable is **the reduction in the weight of mining and quarrying to 11.05% from 14.37%.** इससे भी अधिक उल्लेखनीय खनन एवं उत्खनन क्षेत्र के भार में कमी है, जो 14.37% से घटकर 11.05% हो गया है।

- **These shifts suggest that the importance of value-added infrastructure and utility services in gauging industrial activity has expanded, while the relative significance of primary resource extraction has diminished.**

ये परिवर्तन संकेत देते हैं कि औद्योगिक गतिविधियों के आकलन में मूल्य-वर्धित अवसंरचना एवं उपयोगिता सेवाओं का महत्व बढ़ा है, जबकि प्राथमिक संसाधन निष्कर्षण का सापेक्ष महत्व घटा है।

- **Together, these changes better capture India's emergence as a components and value-added manufacturing hub integrated into global supply chains.**

सामूहिक रूप से ये परिवर्तन भारत के वैश्विक आपूर्ति शृंखलाओं से एकीकृत घटक एवं मूल्य-वर्धित विनिर्माण केंद्र के रूप में उभरने को अधिक प्रभावी ढंग से प्रतिबिंबित करते हैं।

- **Most importantly, the government has indicated its intention to move towards a chain-linked framework with more frequent updates to sectoral weights.**

सबसे महत्वपूर्ण बात यह है कि सरकार ने क्षेत्रीय भारों के अधिक नियमित अद्यतन के साथ शृंखला-संबद्ध ढाँचे (Chain-linked Framework) की ओर बढ़ने की अपनी मंशा व्यक्त की है।

- **Such a system would allow official statistics to better keep pace with structural changes in the economy, making the IIP a more accurate and timely gauge of industrial health.**

ऐसी प्रणाली आधिकारिक आँकड़ों को अर्थव्यवस्था में होने वाले संरचनात्मक परिवर्तनों के साथ बेहतर सामंजस्य स्थापित करने में सक्षम बनाएगी, जिससे IIP औद्योगिक स्वास्थ्य का अधिक सटीक एवं समयोचित संकेतक बन सकेगा।



# How India scaled its startup industry from 2016 to 2025

The Startup India scheme has been a success due to a supportive policy environment, robust startup growth, and a positive investment climate

GS II: Economy

## DATA POINT

Thillai Rajan A.  
Chinni Chaitanya  
Vamika Perumal

The Indian startup economy has truly come of age in the 10 years since Prime Minister Narendra Modi gave the clarion call during his Independence Day address on August 15, 2015, to make India the "Number 1" country in startups, and thereby sowed the seeds of significant directional change.

The three traits that make startups different from conventional businesses are an emphasis on innovation, the use of technology, and market opportunity. To distinguish startups from other businesses, the Department for Promotion of Industry and Internal Trade (DPIIT) started recognising companies that aligned with government guidelines as startups. Despite DPIIT recognition not being mandatory for startups to operate, there has been a significant growth in startups applying for its recognition. From 288 in 2016, which was just 3% of the total startups functioning then, the DPIIT's coverage has increased to 77% in 2025. The growing willingness to join the formal startup ecosystem has been an important measure of success for India's startup story.

Another indicator of success has been the penetration of startup culture across the length and breadth of the country. There has been a remarkable shift in startup formation from Tier 1 cities to Tier 3 towns. In 2016, Tier 1 cities dominated the startup landscape, accounting for about 65% of the total startups set up that year, while Tier 3 towns accounted for only about 15%. In 2020, these shares changed to 49% and 27%, respectively. However, the biggest change happened in 2025, when Tier 1 cities accounted for just 18% of new startups, whereas Tier 3 towns made up for 71%. This shift high-

lights the spread of innovation beyond major urban hubs.

The age and gender distributions of startup founders reveal a strong presence of the youth. A substantial portion of founders across both genders (approximately 66% are male founders and 59% female founders) are under 40. The embrace of entrepreneurship early in one's career signals a favourable and supportive ecosystem for startups. The data shows that women embark on their entrepreneurial journeys relatively later and their proportion increases notably with age. While women account for about 21% of the founders in the under-30 age group, they account for 33% in the 50-plus age group. Creating a supportive environment for women to pursue entrepreneurship has been an important policy imperative. The Compound Annual Growth Rate (CAGR) of women founders stood at 20%, compared with 14% for men, underlining the strong trend of women increasingly pursuing entrepreneurship.

### The funding landscape

A surge in the confidence to invest in Indian startups has been yet another defining feature of the 2016-25 period. In 2016, India had 10,000 startups, of which 2,000 were funded ventures. The numbers have increased dramatically in 2025 with a total of 2,50,000 startups, of which 75,000 are funded ventures. This is an increase of 25-fold and 38-fold respectively.

Trends indicate that a supportive policy environment, robust startup growth, and a positive investment climate in the first 10 years of the Startup India scheme have created several moments of success. The decade from 2016 to 2025 has firmly placed India among the top four in the league of startup nations.

Thillai Rajan A., Chinni Chaitanya and Dr. Vamika Perumal, the Centre for Research on Startups, Indian Institute of Technology Madras

## Startup surge

The data were sourced from the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Corporate Affairs (MCA), and YNOS Venture Engine



Chart 1: The growth in the number of DPIIT-recognised startups between 2016 and 2025

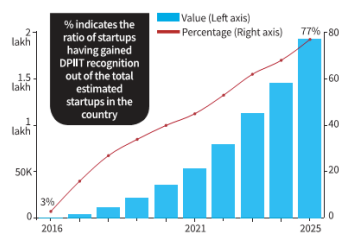


Chart 2: The number of startups set up in Tier 1, Tier 2, and Tier 3 cities and towns in 2016, 2020, and 2025

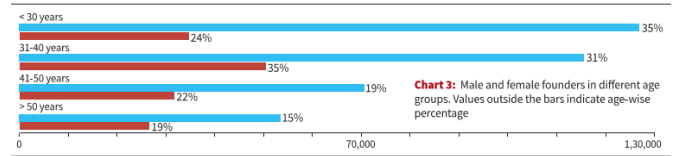
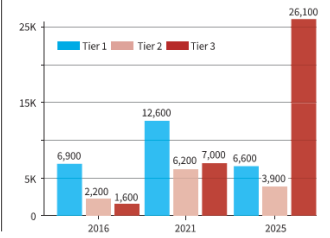


Chart 4: The growth in male and female founders between 2016 and 2025

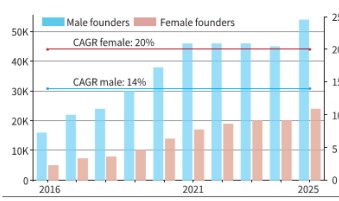
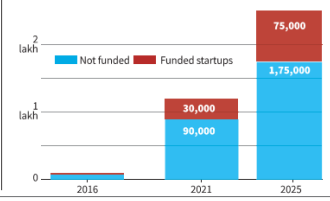


Chart 5: The growth in startup formation and funded startups between 2016 and 2025



## 04J6. How India scaled its startup industry from 2016 to 2025

भारत ने 2016 से 2025 के बीच अपने स्टार्टअप उद्योग का विस्तार कैसे किया

- The **Startup India scheme** has been a success due to a supportive **policy environment**, robust **startup growth**, and a positive **investment climate**.
- स्टार्टअप इंडिया योजना सहायक नीतिगत वातावरण, मजबूत स्टार्टअप वृद्धि तथा अनुकूल निवेश माहौल के कारण सफल रही है।
- The **three traits that make startups different from conventional businesses** are an emphasis on **innovation**, the use of **technology**, and **market opportunity**.

स्टार्टअप्स को पारंपरिक व्यवसायों से अलग बनाने वाली तीन प्रमुख विशेषताएँ हैं — नवाचार, प्रौद्योगिकी का उपयोग, और बाज़ार अवसरों पर विशेष ध्यान।

- To distinguish startups from other businesses, the **Department for Promotion of Industry and Internal Trade (DPIIT)** started recognising companies that aligned with government **guidelines as startups**.

स्टार्टअप्स को अन्य व्यवसायों से अलग पहचान देने के लिए उद्योग एवं आंतरिक व्यापार संवर्धन विभाग (DPIIT) ने सरकारी दिशानिर्देशों के अनुरूप कंपनियों को स्टार्टअप के रूप में मान्यता देना प्रारम्भ किया।

- From **288 in 2016**, which was just **3%** of the total startups functioning then, the DPIIT's coverage has increased to **77% in 2025**.



वर्ष 2016 में 288 स्टार्टअप्स, जो उस समय कुल कार्यरत स्टार्टअप्स का केवल 3 प्रतिशत थे, DPIIT से मान्यता प्राप्त थे, जबकि वर्ष 2025 में यह कवरेज बढ़कर 77 प्रतिशत हो गया।

- However, the biggest change happened in 2025, when Tier 1 cities accounted for just 18% of new startups, whereas Tier 3 towns made up for 71%.  
हालाँकि, सबसे बड़ा परिवर्तन वर्ष 2025 में हुआ, जब टियर-1 शहरों की हिस्सेदारी घटकर केवल 18 प्रतिशत रह गई, जबकि टियर-3 कस्बों की हिस्सेदारी बढ़कर 71 प्रतिशत हो गई।
- A substantial portion of founders across both genders (approximately 66% male founders and 59% female founders) are under 40.  
दोनों लिंगों के संस्थापकों का एक बड़ा भाग (लगभग 66 प्रतिशत पुरुष संस्थापक और 59 प्रतिशत महिला संस्थापक) 40 वर्ष से कम आयु का है।
- While women account for about 21% of the founders in the under-30 age group, they account for 33% in the 50-plus age group.  
जहाँ 30 वर्ष से कम आयु वर्ग में महिलाओं की हिस्सेदारी लगभग 21 प्रतिशत है, वहीं 50 वर्ष से अधिक आयु वर्ग में यह बढ़कर 33 प्रतिशत हो जाती है।
- The Compound Annual Growth Rate (CAGR) of women founders stood at 20%, compared with 14% for men, underlining the strong trend of women increasingly pursuing entrepreneurship.  
महिला संस्थापकों की चक्रवृद्धि वार्षिक वृद्धि दर (CAGR) 20 प्रतिशत रही, जबकि पुरुषों के लिए यह 14 प्रतिशत थी, जो महिलाओं द्वारा बढ़ते स्तर पर उद्यमिता अपनाने की प्रवृत्ति को रेखांकित करती है।

### The funding landscape

#### वित्तपोषण का परिदृश्य

- In 2016, India had 10,000 startups, of which 2,000 were funded ventures.  
वर्ष 2016 में भारत में 10,000 स्टार्टअप्स थे, जिनमें से 2,000 को वित्तपोषण प्राप्त था।
- The numbers have increased dramatically in 2025 with a total of 2,50,000 startups, of which 75,000 are funded ventures.  
वर्ष 2025 में यह संख्या उल्लेखनीय रूप से बढ़कर 2,50,000 स्टार्टअप्स हो गई, जिनमें से 75,000 को वित्तपोषण प्राप्त है।
- The decade from 2016 to 2025 has firmly placed India among the top four startup nations in the world.  
2016 से 2025 का दशक भारत को विश्व के शीर्ष चार स्टार्टअप देशों में स्थापित करने में सफल रहा है।



# Cabinet approves ₹10,000 cr. ATF price stabilisation fund

One-time budgetary support to oil companies is aimed at backing airlines in the backdrop of escalating jet fuel prices due to the West Asia conflict; fund to be offered as interest-free advances

GS III: Economy

The Hindu Bureau  
NEW DELHI

Seeking to cushion airlines in the backdrop of escalating jet fuel prices due to the West Asia conflict, the Union Cabinet on Wednesday approved a one-time budgetary support of ₹10,000 crore to oil-marketing companies (OMCs) towards a price stabilisation fund.

The budgetary support would be made available to scheduled airlines in India for both domestic and international operations and would be provided in the form of interest-free advances to OMCs.

Union Petroleum Minister Hardeep Singh Puri said that the price stabilisation fund would help stabilise (aviation turbine fuel) ATF prices in the backdrop of the West Asia conflict.

"The fund will help stabilise ATF prices for scheduled Indian carriers and will prevent disruption of airline operations while protecting air passengers from fare spikes driven by the geopolitical conflict involving several energy producers," read his social media post.

The budgetary support would function like a self-sustaining revolving fund.

The Cabinet has sought that once the international ATF prices moderate, the differential amount shall be recovered from the oil-marketing companies

## Cushioning effect

Petroleum Minister Hardeep Singh Puri says the price stabilisation fund will prevent disruption of airline operations and protect air passengers from fare spikes



■ The scheme will be implemented via an MoU between OMCs and participating airlines

■ Airlines can procure ATF only from those OMCs — either for up to three years or until advance amount is fully recovered

■ Once international ATF prices moderate, differential amount will be recovered from OMCs and returned to govt. exchequer

■ The budgetary support would function like a self-sustaining revolving fund

(OMCs) and returned to the government exchequer.

It would be implemented through an MoU between OMCs and participating airlines and would mandate the latter to procure ATF only from OMCs — either for up to three years or until the advance amount is fully recovered.

## Under-recovery

Officials at the Union Petroleum Ministry had informed on Monday that State-run OMCs were presently incurring an under-recovery of ₹30 on every litre of ATF meant for domestic scheduled carriers.

Further, the government observed that international ATF prices surged nearly 2.5 times from ₹60.5 per litre in March to ₹142 per litre in May.

ATF prices for domestic scheduled carriers were

hiked 9% April 1 this year and have been kept unaltered since then.

In fact, Air India, along with its low-cost subsidiary Air India Express and Indigo, together cut down 250 daily domestic flights from June amid rising prices of jet fuel. The move was expected to further escalate airfares.

The government informed that to protect air commuters from a potential sudden price shock, it had capped the ATF prices at ₹75.6 per litre.

## 'No adequate cushion'

However, the continuing crisis did not offer adequate cushion.

"ATF accounts for nearly 40% of airline operating costs and during periods of extreme fuel volatility, can constitute up to 60% of total operating expenditure," it said.

## Crude oil futures hit record high of ₹9,260 per barrel

NEW DELHI

Crude oil prices surged by ₹310 to a fresh record high of ₹9,260 per barrel in futures trade on Wednesday, tracking strong gains in global benchmarks amid the escalating tensions in West Asia. On the MCX, the most-active June crude oil contract climbed by ₹310, or 3.46%, to an all-time high of ₹9,260 per barrel. "Crude oil extended its rally for a third consecutive session on Wednesday as regional escalation intensified overnight," brokerage firm Kotak Neo said. PTI

## Refined fuel exports fall to lowest since 2022

NEW DELHI

India's exports of refined petroleum products fell to about 9,30,000 bpd in May, their lowest level since October 2022, as refinery maintenance, changing production priorities and stronger domestic demand curtailed overseas shipments. Exports declined to around 9,30,000 bpd, down to levels last seen when shipments averaged 9,26,000 bpd in October 2022, reflecting a combination of lower refinery throughput and growing focus on supply to the domestic market, according to data analytics firm Kpler. PTI

## 04J6. Cabinet approves ₹10,000 cr. ATF price stabilisation fund

कैबिनेट ने ₹10,000 करोड़ के ATF मूल्य स्थिरीकरण कोष को मंजूरी दी

- **One-time budgetary support to oil companies** is aimed at backing airlines in the backdrop of escalating jet fuel prices due to the **West Asia conflict**; fund to be offered



as interest-free advances.

तेल कंपनियों को एकमुश्त बजटीय सहायता का उद्देश्य पश्चिम एशिया संघर्ष के कारण बढ़ती जेट ईंधन कीमतों की पृष्ठभूमि में एयरलाइनों को समर्थन देना है; यह कोष ब्याज-मुक्त अग्रिम के रूप में प्रदान किया जाएगा।

- Seeking to cushion airlines in the backdrop of escalating **jet fuel prices** due to the **West Asia conflict**, the **Union Cabinet** on Wednesday approved a one-time budgetary support of **₹10,000 crore** to **oil-marketing companies (OMCs)** towards a **price stabilisation fund**.  
पश्चिम एशिया संघर्ष के कारण बढ़ती जेट ईंधन कीमतों के बीच एयरलाइनों को राहत देने के लिए केंद्रीय मंत्रिमंडल ने बुधवार को तेल विपणन कंपनियों (OMCs) को **मूल्य स्थिरीकरण कोष** हेतु **₹10,000 करोड़** की एकमुश्त बजटीय सहायता को मंजूरी दी।
- Union Petroleum Minister **Hardeep Singh Puri** said that the **price stabilisation fund would help stabilise aviation turbine fuel (ATF) prices** in the backdrop of the **West Asia conflict**.  
केंद्रीय पेट्रोलियम मंत्री **हरदीप सिंह पुरी** ने कहा कि **मूल्य स्थिरीकरण कोष पश्चिम एशिया संघर्ष** की पृष्ठभूमि में **एविएशन टरबाइन फ्यूल (ATF)** की कीमतों को स्थिर रखने में मदद करेगा।
- The budgetary support would function like a **self-sustaining revolving fund**.  
यह बजटीय सहायता एक **स्व-निर्वाहक रिवाँल्विंग फंड** की तरह कार्य करेगी।
- The Cabinet has sought that once the international **ATF prices** moderate, the differential amount shall be recovered from the **oil-marketing companies (OMCs)** and returned to the government exchequer.  
मंत्रिमंडल ने निर्देश दिया है कि जब अंतरराष्ट्रीय **ATF कीमतें** सामान्य होंगी, तब अंतर की राशि **तेल विपणन कंपनियों (OMCs)** से वसूलकर सरकारी खजाने में वापस जमा की जाएगी।

## Wheat procurement surges 17% to 35 million tonnes, exceeds 2026-27 season goal

GS III: Economy  
Press Trust of India  
NEW DELHI

The government's wheat procurement rose 17% to over 35 million tonnes (MT) in the 2026-27 rabi marketing season, surpassing both the target of 34.5 MT and the previous year's procurement of 30 MT, a senior Food Ministry official said on Wednesday.

"Wheat procurement crossed 35 million tonnes so far this season. We have exceeded the target. Procurement in major producing states has been completed," the official said.

The Food Corporation of India (FCI) and State agencies procure wheat at the minimum support price (MSP) to meet the National Food Security Act and other welfare



**Bumper harvest:** Procurement in major producing states has been completed, says a Food Ministry official. PTI

schemes' needs.

### Lower mandi rates

Higher procurement was aided by mandi rates ruling below the MSP on robust domestic production of 120.65 MT, sustained despite localised crop damage from unseasonal rainfall and hailstorms.

State-wise, Punjab led procurement at 12.1 MT, up from 11.9 MT in the previous season. Madhya Pradesh showed a sharp jump to 10.4 MT from 7.8 MT. While wheat procurement season runs from April through March, much of the procurement is done in the first few months itself.

**04J6. Wheat procurement surges 17% to 35 million tonnes, exceeds 2026-27 season goal**

**गेहूं खरीद 17% बढ़कर 35 मिलियन टन पहुँची, 2026-27 सीजन का लक्ष्य पार**

• "Wheat procurement crossed **35 million tonnes** so far this season. We have exceeded the target. Procurement in major producing states has been completed," the official said.

अधिकारी ने कहा, "इस सीजन में अब तक **गेहूं खरीद 35 मिलियन टन** को पार कर चुकी है। हमने लक्ष्य से अधिक खरीद की है। प्रमुख उत्पादक राज्यों में खरीद प्रक्रिया पूरी हो चुकी है।"

• The **Food Corporation of India (FCI)** and **State agencies** procure wheat at the **Minimum Support Price (MSP)** to meet the **National Food Security Act** and other welfare schemes' needs.



भारतीय खाद्य निगम (FCI) और राज्य एजेंसियाँ न्यूनतम समर्थन मूल्य (MSP) पर गेहूँ खरीदती हैं ताकि राष्ट्रीय खाद्य सुरक्षा अधिनियम तथा अन्य कल्याणकारी योजनाओं की आवश्यकताओं को पूरा किया जा सके।

## Lower mandi rates

### कम मंडी दरें

- While the **wheat procurement season** runs from **April through March**, much of the procurement is done in the **first few months** itself.  
हालाँकि गेहूँ खरीद सीजन अप्रैल से मार्च तक चलता है, लेकिन अधिकांश खरीद शुरुआती कुछ महीनों में ही पूरी कर ली जाती है।

# RBI debunks reports on gold sale, says reserves are 'steady at 880.52 tonnes'

GS III: Economy

Press Trust of India

MUMBAI

Debunking reports of gold sale, the Reserve Bank of India (RBI) said there is no change in the physical stock of gold, which remains unchanged at 880.52 tonne.

The clarification from the RBI comes following reports it may have sold gold amounting to approximately \$12 billion to shield foreign-currency reserves from the impact of the ongoing conflict in West Asia.

"The RBI emphasises that these reports are not



**Clearing the air:** The clarification comes amid reports that RBI may have sold gold worth \$12 billion. REUTERS

correct," the central bank said in a statement.

Members of the public are, therefore, advised to rely on official information

published by the RBI from time to time in such matters, it said.

Once considered among Asia's more stable curren-

cies, the rupee has now become one of the worst-performing emerging market currencies this year, pressured by a toxic mix of expensive oil, capital outflows, widening trade deficits and a surging U.S. dollar. It has depreciated about 7% so far in 2026 and is down roughly 6% since the outbreak of the Iran conflict in late February.

India's forex reserves dropped \$7.511 billion to \$681.384 billion during the week ended May 22. India's forex reserve stood at \$686.801 billion in the week to January 2, 2026.

## 04J6. RBI debunks reports on gold sale, says reserves are 'steady at 880.52 tonnes'

आरबीआई ने सोना बेचने की खबरों का खंडन किया, कहा भंडार '880.52 टन पर स्थिर' है

- Debunking reports of **gold sale**, the **Reserve Bank of India (RBI)** said there is no change in the physical stock of **gold**, which remains unchanged at **880.52 tonne**.

सोना बेचने की खबरों का खंडन करते हुए **भारतीय रिज़र्व बैंक (RBI)** ने कहा कि सोने के भौतिक भंडार में कोई परिवर्तन नहीं हुआ है और यह **880.52 टन** पर स्थिर है।

- Once considered among **Asia's more stable currencies**, the **rupee** has now become one of the worst-performing **emerging market currencies** this year, pressured by a toxic mix of expensive oil, capital outflows, widening trade deficits and a surging **U.S. dollar**.

कभी एशिया की अधिक स्थिर मुद्राओं में गिने जाने वाला **रुपया**, इस वर्ष महंगे तेल, पूंजी निकासी, बढ़ते व्यापार घाटे और मजबूत होते **अमेरिकी डॉलर** के दबाव के कारण सबसे खराब प्रदर्शन करने वाली **उभरते बाजारों की मुद्राओं** में शामिल हो गया है।



## S. America's stealthy ascent to key crude oil swing supplier



**Beyond barriers:** The region has delivered the largest increase in oil exports of any producing bloc. REUTERS

GS III: Economy  
Reuters  
LITTLETON, COLORADO

While oil markets fixate on the disruptions to West Asia exports and surging U.S. supply in 2026, South America is quietly emerging as a key new source of global crude flows.

Led by Brazil, Guyana and Venezuela, the region has delivered the largest increase in oil exports of any producing bloc so far this year, reshaping global trade patterns and reinforcing the Atlantic basin's role in global supply.

The shift has been gradual, dispersed and largely uncoordinated. But in aggregate, it is turning South America into a de facto swing supplier hiding in plain sight.

The collapse in crude exports from the Middle East so far this year has rightly dominated oil market attention. Producers in the region have accounted for around 43% of all seaborne oil exports over the past decade, data from commodities intelligence firm Kpler shows, anchoring global crude trade.

But the near-total closure of the Strait of Hormuz since March has slashed shipments from the region by more than a quarter during January to May compared to the year before, leaving a supply shortfall of roughly 675 million barrels.

That gap is too large for any single producer to quickly replace, forcing markets to lean heavily on inventories. It has also amplified the importance of rising supply elsewhere—notably from South America. Several exporters have lifted shipments this year, helping to offset part of the disruption. But nowhere has the increase been more pronounced than in South America, where total exports have posted their largest ever year-over-year gain, rising by around 155 million barrels to eclipse the growth of all other regions combined.

### Rapid rise

Among the 10 nations to increase crude oil exports the most so far in 2026, the United States ranks top, registering a nearly 112-million-barrel increase during January to May compared to the same months in 2025, according to Kpler.

However, South America's contribution has been both broader and more structurally significant. Brazil, Guyana and Venezuela have posted the next largest annual increases in crude shipments this year, collectively adding around 145 million barrels.

Including a further 12 million barrels from Argentina, gains from those key nations exceed 157 million barrels compared to the year before.

Some small export volume declines this year from Colombia, Ecuador and Peru have curbed South America's total expansion to 155 million barrels, but the total shipped out from the region from January to May remains a record 787 million barrels.

That compares to around 430 million barrels for the same period in 2021, and so marks an 84% increase over the past five years.

Two nations have been key drivers of that regional expansion: Brazil and Guyana.

• India's **forex reserve** stood at **\$686.801 billion** in the week to **January 2, 2026**.

2 जनवरी 2026 को समाप्त सप्ताह में भारत का विदेशी मुद्रा भंडार 686.801 अरब डॉलर था।

### 04J6. S. America's stealthy ascent to key crude oil swing supplier

**कच्चे तेल के प्रमुख संतुलनकारी आपूर्तिकर्ता के रूप में दक्षिण अमेरिका का शांत उदय**

• Led by **Brazil, Guyana and Venezuela**, the region has delivered the largest increase in **oil exports** of any producing bloc so far this year, reshaping global trade patterns and reinforcing the **Atlantic basin's** role in global supply.

**ब्राज़ील, गुयाना और वेनेजुएला** के नेतृत्व में इस क्षेत्र ने इस वर्ष अब तक किसी भी उत्पादक समूह की तुलना में **तेल निर्यात** में सबसे अधिक वृद्धि दर्ज की है, जिससे वैश्विक व्यापार पैटर्न बदल रहे हैं और वैश्विक आपूर्ति में **अटलांटिक बेसिन** की भूमिका मजबूत हो रही है।

• But in aggregate, it is **turning South America into a de facto swing supplier** hiding in plain sight.

लेकिन समग्र रूप से यह **दक्षिण अमेरिका** को एक वास्तविक **संतुलनकारी आपूर्तिकर्ता (Swing Supplier)** में बदल रहा है।

• Among the 10 nations to increase **crude oil exports** the most so far in 2026, the **United States** ranks top, registering a nearly **112-million-barrel increase** during January to May compared to the same months in 2025, according to Kpler.

**Kpler** के अनुसार, 2026 में अब तक **कच्चे तेल के निर्यात** में सबसे अधिक वृद्धि करने वाले 10 देशों में **संयुक्त राज्य अमेरिका** शीर्ष पर है, जिसने 2025 की समान अवधि की तुलना में जनवरी से मई के दौरान लगभग **112 मिलियन बैरल** की वृद्धि दर्ज की।

• **Brazil, Guyana and Venezuela** have posted the next largest annual increases in crude shipments this year, collectively adding around **145 million barrels**.

**ब्राज़ील, गुयाना और वेनेजुएला** ने इस वर्ष कच्चे तेल की आपूर्ति में अगली सबसे बड़ी वार्षिक वृद्धि दर्ज की है, और संयुक्त रूप से लगभग **145 मिलियन बैरल** जोड़े हैं।

• Including a further **12 million barrels from Argentina**, gains from those key nations exceed **157 million barrels** compared to the year before.

**अर्जेंटीना** से अतिरिक्त **12 मिलियन बैरल** जोड़ने पर, इन प्रमुख देशों की कुल वृद्धि पिछले वर्ष की तुलना में **157 मिलियन बैरल** से अधिक हो जाती है।

• Some small export volume declines this year from **Colombia, Ecuador and Peru** have curbed South America's total expansion to **155 million barrels**, but the total shipped out from the region from January to May remains a record **787 million barrels**.

**कोलंबिया, इक्वाडोर और पेरू** से निर्यात में कुछ कमी ने दक्षिण अमेरिका की कुल वृद्धि को **155 मिलियन बैरल** तक सीमित किया है, फिर भी जनवरी से मई के बीच क्षेत्र का कुल निर्यात रिकॉर्ड **787 मिलियन बैरल** रहा।



# AI unlikely to be the demand booster that copper bulls expect

GS III: Economy

Reuters  
LONDON

From the Bronze Age to the AI age, copper is again at the heart of the latest big investment craze.

The rationale is simple. Data centers need a lot of wiring, cooling and power, which means they need a lot of copper. AI data centers need even more.

A crypto data center requires 21 metric tons of copper per megawatt installed, while an AI training data center in China has a copper intensity of 47 tons, according to S&P Global Market Intelligence.

The escalating global AI arms race will undoubtedly boost demand for copper. But by how much?

S&P Global forecasts usage in data centers and as-

sociated infrastructure will rise from 1.1 million tons in 2025 to 2.5 million tons in 2040. There are, though, a lot of "buts" lurking in that forecast.

Demand could be as high as 2.7 million tons or as low as 1.7 million, depending on the interaction of multiple fast-changing variables. As the authors of "Copper in the Age of AI" put it, the "wide span underscores both the uncertainty and the scale of the challenge ahead."

## The delivery gap

One key variable in assessing likely copper demand is the scale of AI data center expansion. Many of the new megawatts of announced AI computing capacity are "bragawatts", according to a study re-



Wide span: Raw copper from Zambia awaits export in a warehouse at Newlyn Terminal at Bayhead at the port in Durban. REUTERS

leased by the Oxford Smith School and financial broker Mares Group.

While media and markets are expecting and pricing a rapid exponential ramp-up in AI infrastructure, the outcome is likely to be "a roll-out that is delayed, lumpy, and constrained by physical reali-

ties." The biggest hurdle is grid connectivity. A data center can be built in 18 to 24 months but the average U.S. waiting time for a grid connection was four years between 2018 and 2023.

That assumes there is enough power in the first place. Ireland built so many data centers that by

2021 the sector's share of national energy consumption had risen to over 20%, threatening to overwhelm the country's energy system.

The Irish grid operator imposed a de facto four-year moratorium on new applications, which has only just been lifted, albeit with strict new conditions.

Throw into the mix long lead times for essential equipment such as transformers and a shortage of specialized labour and there is a growing gap between announced and delivered AI computing capacity, according to the Smith study. Copper, it warns, is in danger of falling down that gap. Quantifying how much copper is used in data centers is also a fast-moving target.

The battle for AI supremacy is one of computing power, and as chips evolve, so must the architecture of rack design and wiring.

S&P Global notes there is already a shift underway from copper to fiber optics in the interconnect cabling between processor racks.

This could result in copper intensity in data centers falling by 4 or 5 tons per megawatt installed, not a trivial change given the overall 30- to 40-ton range deployed in non-crypto data centers.

More fundamentally, though, chip company Nvidia argues that even copper will be challenged to deliver the low latency and high bandwidth of next-generation AI centers.

Using traditional low voltages would necessitate

"an unsustainable volume of copper cabling."

Nvidia is proposing a transition to 800 volts, which means the same wire gauge can carry 157% more power. A simpler setup also means fewer copper conductors and smaller connectors.

Reducing copper usage is both a cost consideration and, the company argues, a critical pathway to ever-increasing rack power.

## Material wars

Ardent copper bulls argue that such is the looming deficit in copper that the metal could itself become a bottleneck in the roll-out of AI capacity. That may be more true of some of the other metals that go into connecting physical and virtual worlds.

Data centers are a sink for all sorts of minerals, 60 to 70 tons of them per megawatt installed, according to the World Economic Forum.

There's copper, but also aluminium, cobalt, nickel, tin, gold, silver, germanium and gallium and, of course, a smattering of the increasingly ubiquitous rare earth metals.

Germanium and gallium are more likely to pose a materials bottleneck than copper. Western supply of both metals is acutely tight after restrictions in 2023.

Big Tech is competing for limited supply with both the U.S. Pentagon and the EU, which is looking to build a strategic metals stockpile. It's by no means certain it will win.

## 04J6. AI unlikely to be the demand booster that copper bulls expect

### एआई तांबा समर्थकों की अपेक्षा के अनुसार मांग बढ़ाने वाला कारक बनने की संभावना नहीं

- From the **Bronze Age** to the **AI age**, copper is again at the heart of the latest big investment craze.  
कांस्य युग (Bronze Age) से लेकर एआई युग (AI Age) तक, तांबा (Copper) एक बार फिर नवीनतम बड़े निवेश आकर्षण के केंद्र में है।
- Data centers** need a lot of wiring, cooling and power, which means they need a lot of copper.  
डेटा सेंटर्स को बहुत अधिक वायरिंग, कूलिंग और बिजली की आवश्यकता होती है, जिसका अर्थ है कि उन्हें बड़ी मात्रा में तांबे की जरूरत होती है।
- A crypto data center requires **21 metric tons of copper per megawatt installed**, while an AI training data center in China has a copper intensity of **47 tons**, according to **S&P Global Market Intelligence**.  
S&P Global Market Intelligence के अनुसार, एक क्रिप्टो डेटा सेंटर को प्रति मेगावाट स्थापित क्षमता पर **21 मीट्रिक टन तांबा** चाहिए, जबकि चीन के एआई प्रशिक्षण डेटा सेंटर में तांबे की तीव्रता **47 टन** है।
- The biggest hurdle is **grid connectivity**.  
सबसे बड़ी बाधा **ग्रिड कनेक्टिविटी** है।
- A data center can be built in **18 to 24 months** but the average U.S. waiting time for a grid connection was **four years** between **2018 and 2023**.  
एक डेटा सेंटर **18 से 24 महीनों** में बनाया जा सकता है, लेकिन **2018 से 2023** के बीच अमेरिका में ग्रिड कनेक्शन के लिए औसत प्रतीक्षा अवधि **चार वर्ष** थी।
- Ireland** built so many data centers that by **2021** the sector's share of national energy consumption had risen to over **20%**, threatening to overwhelm the country's energy system.  
आयरलैंड ने इतने अधिक डेटा सेंटर बनाए कि **2021** तक राष्ट्रीय ऊर्जा खपत में इस क्षेत्र की हिस्सेदारी **20%** से अधिक हो गई, जिससे देश की ऊर्जा व्यवस्था पर दबाव बढ़ गया।
- S&P Global** notes there is already a shift underway from copper to **fiber optics** in the interconnect cabling between processor racks.  
S&P Global के अनुसार, प्रोसेसर रैक के बीच इंटरकनेक्ट केबलिंग में तांबे से **फाइबर ऑप्टिक्स** की ओर बदलाव शुरू हो चुका है।

## Material wars

### सामग्री युद्ध



- There's copper, but also aluminium, cobalt, nickel, tin, gold, silver, germanium and gallium and, of course, a smattering of the increasingly ubiquitous rare earth metals. इनमें तांबा, एल्युमिनियम, कोबाल्ट, निकल, टिन, सोना, चाँदी, जर्मनियम, गैलियम तथा बढ़ते उपयोग वाली दुर्लभ मृदा धातुएँ (Rare Earth Metals) शामिल हैं।
- Germanium and gallium are more likely to pose a materials bottleneck than copper. जर्मनियम और गैलियम तांबे की तुलना में अधिक संभावित सामग्री बाधा बन सकते हैं।

## Brazil takes a historic HDI leap with focused planning and public spending

UN report reveals the country's cash-transfer scheme has played a key role in raising its Human Development Index score from 0.744 in 2012 to 0.805 in 2024, on a scale from 0 to 1; as Brazil enters election cycle, the far-right narrative that the scheme discourages people from working draws backlash

GS III: Economy

NEWS ANALYSIS

Shobhan Saxena  
SAO PAULO

Amid a heated debate about Brazil's flagship cash-transfer scheme last week, a United Nations report revealed that the country had made a giant leap on the Human Development Index (HDI) scale. The controversy erupted after a television presenter, Luciano Huck, said that Bolsa Familia programme "discourages the poor from working". As Mr. Huck was being fact-checked on social media, the UN Development Programme report revealed that the scheme had played a key role in Brazil raising its HDI score from 0.744 in 2012 to 0.805 in 2024.

On the UN scale, which ranges from 0 to 1, the score of 0.805 places Brazil in the category of "very high human development." Among the Afro-Brazilians, the HDI grew by 10.3% over 12 years, almost twice the rate for the Whites. "Achieving this positive result is not by chance; it is the result of strong public policies and an inclusive national project focused on combating inequalities," said Guilherme Boulos, the Federal Minister for Social Development, at the launch of the report in Brasilia.

The index measures indicators related to health and longevity, education, and income generation, with results broken down by race, gender, and region



Brazilian President Luiz Inacio Lula da Silva and First Lady Rosângela da Silva take part in an event via videoconference on the 20th anniversary of Bolsa Familia programme in Brasilia in October 2023. AFP

at the municipal level across all 26 states of Brazil. When the UNDP began calculating the index 30 years ago, Brazil was in the category of low human development. The steady rise, according to the government, has been driven by sustained planning and public spending. "We have made progress in education. We have witnessed success because of an expansion of public healthcare system, income distribution, real increase in the minimum wages and programmes such as Bolsa Familia," said the Minister.

Bolsa Familia, launched in 2003 during President Lula da Silva's first term, has inspired similar schemes worldwide, including the National Rural Employment Guarantee Scheme in India in 2006. Walquiria Rego, a sociologist who has studied the programme for years, says its success stems from pro-

viding poor families with a regular income. "As families received money every month, their eating habits improved, hunger declined dramatically and Brazil was taken off the UN hunger map," she says.

**Healthcare guarantee**  
From its launch in 2003 until 2023, Brazil has spent around US\$ 81 billion on the scheme which has benefited 49 million people. Extensive studies conducted by Prof. Rego show that the programme's impact goes beyond nutrition as, with a steady source of income, poor families were able to furnish their homes and live with dignity. "The changes have been profound: people became better nourished, healthier and more integrated into social and economic life," says Prof. Rego, whose book 'Voices from Bolsa Familia' is considered a landmark work.

Besides cash assistance, Brazil's unified health system, or SUS, has played a crucial role in its HDI improvement. Brazil spends about 9.7% of its GDP of US\$ 2.64 trillion on health, with SUS getting 4% of the amount. Guaranteed by the Constitution, Brazil's free and universal public healthcare system has been a major driver of rising life expectancy. Jorge Félix, a professor of gerontology at the University of São Paulo, says the system focused on child health in the early 1990s and eliminated the diseases like measles that were major causes of illness. "Access to healthcare has expanded across the country through a network of primary health centres. This is important because 75% of Brazilians depend on SUS," he says, adding that vaccination campaigns for children, adults, and access to treatments like cancer

have improved life expectancy.

Both Bolsa Familia and SUS had come under strain between 2018 and 2022 when the government of President Jair Bolsonaro imposed deep spending cuts. The weakening of the public health system, says Prof. Félix, proved catastrophic during the Covid-19 pandemic. "Beyond financing, strategic areas of SUS were also dismantled. As a result, Brazil entered the pandemic with reduced capacity to respond. Shortages of medicines and declining operational capacity left SUS significantly weakened just as Brazil confronted the biggest public health emergency," says the academic, whose book 'The Economics of Longevity' examines the healthcare challenges in Brazil.

In 2022, the last year of Bolsonaro presidency, the country's HDI had sunk low. In 2023, when Mr. Lula returned to the presidency for his third term, the government restored funding for SUS and Bolsa Familia, bringing the momentum back into Brazil's social transformation. The gains have been particularly visible in the historically poorer Northeast region. "Bolsa Familia stimulated commerce in small municipalities across the Northeast because the money circulated locally, generating jobs and creating opportunities for small businesses," says Prof. Rego.

A key reason for Bolsa Familia's success is that payments are made directly to women, particularly

mothers. This policy, says Prof. Rego, has made profound impact on families. "Women are now seen as the people responsible for food and healthcare for their children. It was not simply a cash-transfer plan to alleviate poverty. It also promoted citizenship and dignity for some of the poorest women in Brazil, thus making a significant contribution to human development and social justice," says Prof. Rego.

**Election rhetoric**

While Brazil's HDI figures are in sync with the country's commitments to the UN's 2030 goals, experts warn against complacency. "If the State stops assisting the vulnerable and investing in SUS, the risk of social regression remains high," says Prof. Félix.

As Brazil enters an election cycle, the far-right circles are spreading false stories about how Bolsa Familia discourages people from working. Yet studies show that about 61% of people receiving Bolsa Familia in 2014 had left the programme by 2025. Because of its positive impact on human development, Mr. Luciano Huck's remarks triggered a backlash, particularly in the politically-important Northeast, which has benefitted the most from the scheme.

With the UN report giving a timely boost to President Lula, the beneficiaries of social programmes are not in a mood to accept any argument against the policies which have lifted Brazil into the zone of very high human development.

### 04J6. Brazil takes a historic HDI leap with focused planning and public spending

केंद्रित योजना और सार्वजनिक व्यय के साथ ब्राज़ील ने HDI में ऐतिहासिक छलांग लगाई

- A UN report reveals the country's cash-transfer scheme has played a key role in raising its Human Development Index (HDI) score from 0.744 in 2012 to 0.805 in 2024. संयुक्त राष्ट्र (UN) की रिपोर्ट से पता चला है कि देश की नकद हस्तांतरण योजना (Cash-Transfer



Scheme) ने उसके मानव विकास सूचकांक (HDI) को 2012 में 0.744 से बढ़ाकर 2024 में 0.805 करने में महत्वपूर्ण भूमिका निभाई है।

- On a scale from 0 to 1, the score of 0.805 places Brazil in the category of “very high human development.”

0 से 1 के पैमाने पर 0.805 का स्कोर ब्राज़ील को “बहुत उच्च मानव विकास” की श्रेणी में रखता है।

- The index measures indicators related to health and longevity, education, and income generation, with results broken down by race, gender, and region at the municipal level across all 26 states of Brazil.

यह सूचकांक स्वास्थ्य और दीर्घायु, शिक्षा तथा आय सृजन से जुड़े संकेतकों को मापता है और परिणामों को ब्राज़ील के 26 राज्यों में नस्ल, लिंग और क्षेत्र के आधार पर विभाजित करता है।

- When the UNDP began calculating the index 30 years ago, Brazil was in the category of low human development.

जब UNDP ने 30 वर्ष पहले इस सूचकांक की गणना शुरू की थी, तब ब्राज़ील निम्न मानव विकास की श्रेणी में था।

- Bolsa Família, launched in 2003 during President Lula da Silva’s first term, has inspired similar schemes worldwide, including the National Rural Employment Guarantee Scheme in India in 2006.

राष्ट्रपति लूला दा सिल्वा के पहले कार्यकाल में 2003 में शुरू की गई बोल्सा फेमिलिया योजना ने विश्वभर में कई समान योजनाओं को प्रेरित किया, जिनमें भारत की राष्ट्रीय ग्रामीण रोजगार गारंटी योजना भी शामिल है।

- Walquiria Rego, a sociologist who has studied the programme for years, says its success stems from providing poor families with a regular income.

वर्षों से इस कार्यक्रम का अध्ययन कर रहीं समाजशास्त्री वालकिरिया रेगो कहती हैं कि इसकी सफलता गरीब परिवारों को नियमित आय प्रदान करने में निहित है।

- “As families received money every month, their eating habits improved, hunger declined dramatically and Brazil was taken off the UN hunger map,” she says.

वह कहती हैं, “जैसे-जैसे परिवारों को हर महीने धन मिलने लगा, उनकी भोजन संबंधी आदतों में सुधार हुआ, भूख में भारी कमी आई और ब्राज़ील यूएन भूख मानचित्र से बाहर हो गया।”

## Healthcare guarantee

### स्वास्थ्य सुरक्षा

- With a steady source of income, poor families were able to furnish their homes and live with dignity.

आय का स्थायी स्रोत मिलने से गरीब परिवार अपने घरों को बेहतर बना सके और सम्मानजनक जीवन जी सके।

- Besides cash assistance, Brazil’s unified health system, or SUS, has played a crucial role in its HDI improvement.

नकद सहायता के अलावा, ब्राज़ील की एकीकृत स्वास्थ्य प्रणाली SUS ने भी HDI सुधार में महत्वपूर्ण भूमिका निभाई है।

- Brazil spends about 9.7% of its GDP of US\$ 2.64 trillion on health, with SUS getting 4% of the amount.

ब्राज़ील अपने 2.64 ट्रिलियन डॉलर GDP का लगभग 9.7% स्वास्थ्य पर खर्च करता है, जिसमें से SUS को 4% प्राप्त होता है।

- Guaranteed by the Constitution, Brazil’s free and universal public healthcare system has been a major driver of rising life expectancy.

संविधान द्वारा सुनिश्चित ब्राज़ील की निःशुल्क और सार्वभौमिक सार्वजनिक स्वास्थ्य प्रणाली जीवन प्रत्याशा बढ़ाने का प्रमुख कारण रही है।

- Jorge Félix, a professor of gerontology at the University of São Paulo, says the system focused on child health in the early 1990s and eliminated diseases like measles.



साओ पाउलो विश्वविद्यालय के जेरोन्टोलॉजी प्रोफेसर जॉर्ज फेलिक्स कहते हैं कि 1990 के दशक की शुरुआत में इस प्रणाली ने बाल स्वास्थ्य पर ध्यान केंद्रित किया और खसरा जैसी बीमारियों को समाप्त कर दिया।

- He added that vaccination campaigns for children and adults, and access to treatments like cancer have improved life expectancy.  
उन्होंने कहा कि बच्चों और वयस्कों के टीकाकरण अभियान तथा कैंसर जैसे उपचारों की उपलब्धता ने जीवन प्रत्याशा बढ़ाई है।
- Both **Bolsa Família** and **SUS** had come under strain between **2018 and 2022** when the government of President **Jair Bolsonaro** imposed deep spending cuts.  
**2018 से 2022** के बीच राष्ट्रपति **जायर बोलसोनारो** की सरकार द्वारा खर्च में भारी कटौती किए जाने पर **बोल्सा फेमिलिया** और **SUS** दोनों दबाव में आ गए थे।
- In **2023**, when **Lula** returned to the presidency for his third term, the government restored funding for **SUS** and **Bolsa Família**.  
**2023** में जब **लूला** तीसरी बार राष्ट्रपति बने, तब सरकार ने **SUS** और **बोल्सा फेमिलिया** के लिए वित्तपोषण बहाल किया।
- A key reason for **Bolsa Família's** success is that payments are made directly to women, particularly mothers.  
**बोल्सा फेमिलिया** की सफलता का एक प्रमुख कारण यह है कि भुगतान सीधे महिलाओं, विशेषकर माताओं, को किया जाता है।
- "Women are now seen as the people responsible for food and healthcare for their children."  
"अब महिलाओं को अपने बच्चों के भोजन और स्वास्थ्य देखभाल की जिम्मेदार व्यक्ति के रूप में देखा जाता है।"
- "It also promoted citizenship and dignity for some of the poorest women in Brazil."  
"इसने ब्राज़ील की सबसे गरीब महिलाओं में नागरिकता की भावना और गरिमा को भी बढ़ावा दिया।"

### Election rhetoric चुनावी बयानबाज़ी

- Yet studies show that about **61%** of people receiving **Bolsa Família** in **2014** had left the programme by **2025**.  
फिर भी अध्ययनों से पता चलता है कि **2014** में **बोल्सा फेमिलिया** प्राप्त करने वाले लगभग **61%** लोग **2025** तक इस योजना से बाहर निकल चुके थे।

GS Paper III: Science and Technology		04 June 2026
TOPICS COVERED		
04J6	A liver protein triggered by exercise reversed memory loss in mice व्यायाम से सक्रिय हुआ एक यकृत प्रोटीन चूहों में स्मृति हानि को उलटने में सफल रहा	
04J6	New result pushes bounds of how small a liquid can be नया परिणाम इस सीमा को आगे बढ़ाता है कि कोई द्रव कितना छोटा हो सकता है	
04J6	Is climate research being held back by local instrumentation? क्या स्थानीय उपकरणों की कमी जलवायु अनुसंधान को पीछे रोक रही है?	
04J6	What Delhi HC's pathbreaking ruling on Google keyword advertising means गूगल कीवर्ड विज्ञापन पर दिल्ली हाईकोर्ट के ऐतिहासिक फैसले का क्या अर्थ है	



# A liver protein triggered by exercise reversed memory loss in mice

After exercise, small molecules called **exerkines** are released by the liver, skeletal muscles, heart, and brain into the bloodstream; these include peptides, lipids, and hormones and mediate the beneficial effects of exercise, promoting cardiovascular fitness and improving metabolism

CS III, S&T  
Sheetal Potdar

**A**s we grow older, our cognitive abilities begin to wane. We forget names and places, lose trains of thought, and become creatures of habit. A key to overcoming these ageing-induced cognitive deficits may be exercise.

"Exercise improves cardiovascular fitness, glucose metabolism, insulin sensitivity, blood pressure, lipid profiles, sleep, mood, and immune function," Atef Tari, a researcher studying exercise and brain health at the Norwegian University of Science and Technology and St. Olav's University Hospital, said.

"While all of these can influence brain health, exercise also affects the brain more directly by many different processes, including changes in signaling molecules."

A new study published in *Cell* has reported how a signal released by the liver after exercise reduces cognitive decline due to ageing and Alzheimer's disease in mice.

## Exerkines to the rescue

After exercise, small molecules called exerkines are released by the liver, skeletal muscles, heart, and brain into the bloodstream. These include peptides, lipids, hormones, and nucleic acids.

These exerkines mediate the beneficial effects of exercise, including promoting cardiovascular fitness and improving metabolism, throughout the body.

In the study, Gregor Bieri and colleagues at the University of California, San Francisco, examined the mechanism of action of one such exerkine produced by the liver: GPLDI.

The researchers increased the levels of GPLDI in the livers of older mice that had exercised – voluntarily running on wheels, like a treadmill. Old mice that could not exercise because their wheels had been locked had lower levels of GPLDI in their livers.

Next, the researchers tested the cognitive abilities of young and old mice. Young mice performed better at a spatial memory test compared to old mice. The test was to find a platform hidden in a pool of water. Young mice made fewer errors and found the platform sooner compared to their older peers. The young mice also preferred novel objects instead of familiar ones and would readily explore novel locations, while old mice showed no such preferences.

Importantly, these cognitive deficits were reduced in old mice whose livers were injected with GPLDI, showing that GPLDI could mitigate ageing-induced cognitive decline.

## Protective barrier

GPLDI is an enzyme that breaks down hundreds of proteins on cell surfaces. Based on this function, the authors focused on the blood-brain barrier in mice – a network of blood vessels and specialised cells that surround the brain.

"The blood-brain barrier tightly regulates the signals and nutrients that get shuttled between the brain and blood," Dr. Bieri, the lead author of the study, explained.

As we age, the barrier accumulates proteins that make it leaky. The authors



Exercise affects different parts of the body simultaneously. STEVEN LELHAM/UNSPLASH

found one such protein, called TNAP, to be highly enriched in the blood-brain barriers of old mice, notably even around the hippocampus, the learning and memory centre of the brain.

"While we do not fully understand its role, we observed that TNAP drives inflammation and impairs the transport of factors from blood to brain," Dr. Bieri said.

He and his colleagues performed three experiments to tie the roles of TNAP and GPLDI. First, the scientists found that old mice that have more TNAP in their barriers also had leaky blood vessels. Next, young mice in which TNAP levels were artificially increased in the barrier surrounding the hippocampus showed leaky blood vessels and cognitive defects similar to old mice. Third, injecting GPLDI in the livers of old mice, while also artificially increasing TNAP in the blood-brain barrier, nullified the beneficial effects of GPLDI on cognitive function.

"A strength of this study is the combination of approaches that provides mechanistic evidence that TNAP is functionally involved in blood-brain barrier dysfunction and cognitive decline," Dr. Tari said.

Overall, these experiments showed that TNAP, which accumulates on the blood-brain barrier due to ageing, is broken down by GPLDI, an enzyme released by the liver after exercise.

## Therapeutic potential for Alzheimer's

Given that ageing is a risk factor for neurodegenerative disorders like Alzheimer's disease and dementia, the authors next tested whether the GPLDI intervention could reduce cognitive decline in a mouse model of Alzheimer's disease.

Dr. Tari, who was not involved in the study, exercised caution on this count, noting that "mouse models of Alzheimer's

do not fully reproduce the complexity of the disease in humans, which develops over decades and involves vascular dysfunction, inflammation, metabolism, genetics, and lifestyle factors."

"When the blood-brain barrier becomes leaky, several things can happen that are relevant to Alzheimer's development," Dr. Tari said. "First, inflammatory molecules and other blood-derived factors can enter the brain more easily and activate immune responses. This causes chronic inflammation in the nerve cells which can accelerate disease processes."

"Secondly, if the blood-brain barrier function is impaired, the brain may become less efficient at clearing toxic proteins and maintaining its internal environment." Alzheimer's disease is characterised by the accumulation of toxic amyloid protein, which clump together to form plaques, leading to neurodegeneration and cognitive decline. These features are modelled in genetically modified mice by expressing human genes with multiple mutations that force the rapid buildup of amyloid protein.

The team allowed the Alzheimer's-modelled mice to run on wheels voluntarily for three months, after which their GPLDI levels were higher, and their cognitive performance was notably improved, compared to Alzheimer's-modelled mice that did not exercise.

In another experiment, GPLDI was injected into the livers of Alzheimer's-modelled mice. In these mice, TNAP levels in the blood-brain barrier were lower, the blood vessels were less leaky, there were fewer amyloid plaques, and cognitive dysfunction was reduced.

Experts said these results are encouraging and have clinical implications for Alzheimer's disease. Dr. Bieri noted that "while a lot of

research and potential therapeutic strategies have focused on the brain, recent antibody-based interventions are associated with side effects resulting from a breakdown of the blood-brain barrier. Thus, improving blood-brain barrier function could also improve the treatment efficacy of other therapeutic interventions."

"This study identifies a promising pathway that may become relevant for drug development or biomarker work," Dr. Tari added. "But it does not mean we are close to replacing exercise with a pill yet."

## Parallel and convergent pathways

Exercise affects different parts of the body simultaneously. Brain function is also influenced by multiple factors. Recently, in another study, researchers from Seoul National University and the Korea Brain Research Institute found that exerkines secreted by skeletal muscles could improve cognitive performance by crossing the blood-brain barrier, unlike GPLDI. This exerkine was found to boost new neuron formation within the hippocampus. "The benefits of exercise are unlikely to be explained by a single molecule or pathway alone," Dr. Tari noted, adding that "the strength of exercise likely lies in its ability to trigger a coordinated, whole-body response."

Dr. Bieri said he sees clinical opportunity in the possibility of multiple exerkines working in tandem: "As potential new therapeutic strategies keep expanding, [the] discovery of complementary mechanisms will allow for a more personalised medicine approach. Future treatments will likely be combinatorial, tackling different cell types and hallmarks of ageing and disease."

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**04J6. A liver protein triggered by exercise reversed memory loss in mice**  
व्यायाम से सक्रिय हुआ एक यकृत प्रोटीन चूहों में स्मृति हानि को उलटने में सफल रहा

- After **exercise**, small molecules called **exerkines** are released by the **liver, skeletal muscles, heart, and brain** into the bloodstream; these include **peptides, lipids, and hormones** and mediate the beneficial effects of exercise, promoting **cardiovascular fitness** and improving **metabolism**.



- व्यायाम के बाद एक्सरकाइन्स (Exerkines) कहलाने वाले छोटे अणु यकृत (Liver), कंकालीय मांसपेशियों (Skeletal Muscles), हृदय (Heart) और मस्तिष्क (Brain) द्वारा रक्तप्रवाह में मुक्त किए जाते हैं; इनमें पेप्टाइड्स (Peptides), लिपिड्स (Lipids) और हार्मोन्स (Hormones) शामिल होते हैं तथा ये व्यायाम के लाभकारी प्रभावों का मध्यस्थन करते हैं, हृदय-रक्तवाहिका स्वास्थ्य (Cardiovascular Fitness) को बढ़ावा देते हैं और उपापचय (Metabolism) में सुधार करते हैं।
- **As we grow older, our cognitive abilities begin to wane.**  
जैसे-जैसे हम आयु में वृद्धि करते हैं, हमारी संज्ञानात्मक क्षमताएँ क्षीण होने लगती हैं।
- **A key to overcoming these ageing-induced cognitive deficits may be exercise.**  
इन वृद्धावस्था-जनित संज्ञानात्मक कमियों पर विजय पाने की एक महत्वपूर्ण कुंजी व्यायाम हो सकती है।
- **“Exercise improves cardiovascular fitness, glucose metabolism, insulin sensitivity, blood pressure, lipid profiles, sleep, mood, and immune function,”** Atefe Tari, a researcher studying exercise and brain health at the Norwegian University of Science and Technology and St. Olav’s University Hospital, said.  
“व्यायाम हृदय-वाहिका स्वास्थ्य, ग्लूकोज़ उपापचय, इंसुलिन संवेदनशीलता, रक्तचाप, लिपिड प्रोफ़ाइल, नींद, मनोदशा तथा प्रतिरक्षा कार्य में सुधार करता है,” नॉर्वेजियन यूनिवर्सिटी ऑफ साइंस एंड टेक्नोलॉजी तथा सेंट ओलाव्स यूनिवर्सिटी हॉस्पिटल में व्यायाम एवं मस्तिष्क स्वास्थ्य का अध्ययन करने वाली शोधकर्ता एटेफे तारी ने कहा।
- **These exerkines mediate the beneficial effects of exercise, including promoting cardiovascular fitness and improving metabolism, throughout the body.**  
ये एक्सरकाइन्स शरीर में व्यायाम के लाभकारी प्रभावों का संचालन करते हैं, जिनमें हृदय-वाहिका स्वास्थ्य को बढ़ावा देना और उपापचय में सुधार करना शामिल है।
- In the study, Gregor Bieri and colleagues at the University of California, San Francisco, examined the mechanism of action of one such exerkine produced by the liver: **GPLD1**.  
अध्ययन में, यूनिवर्सिटी ऑफ कैलिफोर्निया, सैन फ्रांसिस्को के ग्रेगर बिएरी और उनके सहयोगियों ने यकृत द्वारा उत्पादित ऐसे ही एक एक्सरकाइन **GPLD1** की कार्यप्रणाली का परीक्षण किया।
- Old mice that could not exercise because their wheels had been locked had lower levels of **GPLD1 in their livers**.  
जिन वृद्ध चूहों के पहिए बंद कर दिए गए थे और जो व्यायाम नहीं कर सकते थे, उनके यकृत में **GPLD1** का स्तर कम पाया गया।

### Protective barrier संरक्षक अवरोध

- **GPLD1 is an enzyme that breaks down hundreds of proteins on cell surfaces.**  
GPLD1 एक एंजाइम है जो कोशिकीय सतहों पर उपस्थित सैकड़ों प्रोटीनों को विघटित करता है।
- **Based on this function, the authors focused on the blood-brain barrier in mice – a network of blood vessels and specialised cells that surround the brain.**  
इस कार्य के आधार पर लेखकों ने चूहों में रक्त-मस्तिष्क अवरोध पर ध्यान केंद्रित किया, जो रक्त वाहिकाओं और विशेषीकृत कोशिकाओं का एक जाल है जो मस्तिष्क को घेरे रहता है।
- **“The blood-brain barrier tightly regulates the signals and nutrients that get shuttled between the brain and blood,”** Dr. Bieri, the lead author of the study, explained.  
अध्ययन के प्रमुख लेखक डॉ. बिएरी ने बताया, “रक्त-मस्तिष्क अवरोध मस्तिष्क और रक्त के बीच स्थानांतरित होने वाले संकेतों और पोषक तत्वों को अत्यंत नियंत्रित रूप से संचालित करता है।”
- The authors found **one such protein, called TNAP, to be highly enriched in the blood-brain barriers of old mice, notably even around the hippocampus, the learning and memory centre of the brain.**  
लेखकों ने पाया कि **TNAP** नामक ऐसा ही एक प्रोटीन वृद्ध चूहों के रक्त-मस्तिष्क अवरोध में अत्यधिक मात्रा में उपस्थित था, विशेष रूप से मस्तिष्क के सीखने और स्मृति केंद्र **हिप्पोकैम्पस** के आसपास।



## Therapeutic potential for Alzheimer's

### अल्ज़ाइमर रोग के लिए चिकित्सीय संभावनाएँ

- Given that ageing is a risk factor for **neurodegenerative disorders** like **Alzheimer's disease** and **dementia**, the authors next tested whether the GPLD1 intervention could reduce cognitive decline in a mouse model of Alzheimer's disease.  
चूँकि वृद्धावस्था अल्ज़ाइमर रोग और मनोभ्रंश (डिमेंशिया) जैसे तंत्रिका-अपक्षयी विकारों के लिए एक जोखिम कारक है, इसलिए लेखकों ने आगे यह परीक्षण किया कि क्या GPLD1 हस्तक्षेप अल्ज़ाइमर रोग के चूहे मॉडल में संज्ञानात्मक गिरावट को कम कर सकता है।
- Dr. Tari, who was not involved in the study, exercised caution on this count, noting that "mouse models of Alzheimer's do not fully reproduce the complexity of the disease in humans, which **develops over decades and involves vascular dysfunction, inflammation, metabolism, genetics, and lifestyle factors.**"  
डॉ. तारी, जो इस अध्ययन में शामिल नहीं थे, ने इस विषय पर सावधानी बरतने की सलाह देते हुए कहा कि "अल्ज़ाइमर के चूहे मॉडल मनुष्यों में पाए जाने वाले रोग की जटिलता को पूरी तरह पुनः प्रस्तुत नहीं करते, जो दशकों में विकसित होता है तथा जिसमें रक्तवाहिकीय विकार, सूजन, उपापचय, आनुवंशिकी और जीवनशैली संबंधी कारक शामिल होते हैं।"  
"This causes chronic inflammation in the nerve cells which can accelerate disease processes."  
"इसके परिणामस्वरूप तंत्रिका कोशिकाओं में दीर्घकालिक सूजन उत्पन्न होती है, जो रोग की प्रक्रियाओं को तीव्र कर सकती है।"
- **Alzheimer's disease** is characterised by the accumulation of toxic **amyloid protein**, which clump together to form plaques, leading to neurodegeneration and cognitive decline.  
अल्ज़ाइमर रोग की विशेषता विषैले **अमाइलॉइड प्रोटीन** के संचय से होती है, जो एकत्रित होकर प्लाक बनाते हैं और तंत्रिका-अपक्षय तथा संज्ञानात्मक गिरावट का कारण बनते हैं।
- This exerkine was found to boost new neuron formation within the **hippocampus**.  
यह पाया गया कि यह एक्सरकाइन हिप्पोकैम्पस में नई तंत्रिका कोशिकाओं के निर्माण को प्रोत्साहित करता है।



# New result pushes bounds of how small a liquid can be

GS III: S&T

Vasudevan Mukunth

Physicists have spent more than two decades studying one of the strangest forms of matter ever created in a laboratory: the quark-gluon plasma (QGP). Quarks and gluons are the smallest pieces of matter. A QGP existed in the first few millionths of a second after the Big Bang, before the quarks bound together to form the first protons and neutrons. Researchers routinely create small droplets of QGP by colliding heavy atomic nuclei at extremely high energies. These droplets are extraordinarily hot, reaching trillions of degrees centigrade. Their behaviour, however, has been more surprising: instead of acting like a gas, the QGP behaves like a fluid.

A new study in *Physical Review Letters* has now reported a new 'boundary' in this field. By smashing together oxygen nuclei at the Large Hadron Collider (LHC),

## The new study addresses a different question: how small can a droplet of matter be and still have fluid-like behaviour

researchers have found the smallest dollop of QGP – so far – that still behaves like a fluid. Physicists have known for

करते।

- Researchers routinely create small droplets of QGP by colliding heavy atomic nuclei at extremely high energies.

शोधकर्ता अत्यधिक उच्च ऊर्जा पर भारी परमाणु नाभिकों की टक्कर कराकर नियमित रूप से QGP की छोटी बूंदों का निर्माण करते हैं।

- These droplets are extraordinarily hot, reaching trillions of degrees centigrade.

ये बूंदें अत्यंत गर्म होती हैं और इनका तापमान खरबों डिग्री सेल्सियस तक पहुँच जाता है।

decades now that energising and colliding lead nuclei, which are much heavier than oxygen nuclei, produces QGP. The new study addresses a different question: how small can a droplet of matter be and still have fluid-like behaviour? The LHC usually smashes together protons. The researchers picked oxygen ions because they occupy a middle ground between the tiny clumps of energy and matter created by smushed protons and the massive ones formed by lead ions. A middle ground that could reveal the tipping point where subatomic matter starts to resemble a fluid. The research team analysed collisions between oxygen nuclei at the LHC, looking for fast-moving particles that emerged from the collision, and compared their numbers with what would be expected if no dense medium had formed. If no dense medium forms, physicists can predict how many such particles should appear. But if a medium is present, some of the energetic quarks and gluons should lose energy before they escape, reducing the number of energetic particles eventually reaching the detector.

The researchers have reported signs of such a suppression. It was less pronounced in collisions involving the oxygen ions, but it was noticeable. The finding suggests that oxygen-oxygen collisions can create a medium large enough to affect the motion of energetic quarks and gluons. The data "are also in better agreement with theoretical models that include quark-gluon energy loss than they are with models that omit it,"

*Physical Review Letters* associate editor Nikhil Karthik wrote in *Physics*. Properties like viscosity and flow are associated with fluids, and these fluids usually have an enormous number of particles. A droplet of water sliding down a wall has quadrillions of water molecules. A glob of honey big enough to show how slowly it slides has roughly a quintillion sugar molecules. Yet the QGP is much, much smaller – it has maybe thousands of quarks and gluons – but it is still a fluid. According to the new finding, a strongly interacting medium can emerge even in collisions involving relatively light nuclei. At the same time, it makes the mystery of where exactly the transition between a fluid-like medium and a gas of largely independent particles emerges more intriguing.

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## 04J6. New result pushes bounds of how small a liquid can be

नया परिणाम इस सीमा को आगे बढ़ाता है कि कोई द्रव कितना छोटा हो सकता है

### Quark-Gluon Plasma (QGP) क्वार्क-ग्लूऑन प्लाज़्मा (QGP)

- Physicists have spent more than two decades studying one of the strangest forms of matter ever created in a laboratory: the **quark-gluon plasma (QGP)**.

भौतिकविदों ने प्रयोगशाला में अब तक निर्मित पदार्थ के सबसे विचित्र रूपों में से एक, क्वार्क-ग्लूऑन प्लाज़्मा (QGP), का अध्ययन करने में दो दशकों से अधिक समय व्यतीत किया है।

- Quarks and gluons are the smallest pieces of matter.

क्वार्क और ग्लूऑन पदार्थ के सबसे छोटे घटक हैं।

- A QGP existed in the first few millionths of a second after the **Big Bang**, before the quarks bound together to form the first protons and neutrons.

बिग बैंग के बाद के प्रारम्भिक कुछ मिलियनवें सेकंड में QGP विद्यमान था, इससे पहले कि क्वार्क आपस में बंधकर प्रथम प्रोटॉन और न्यूट्रॉन का निर्माण



- Their behaviour, however, has been more surprising: instead of acting like a gas, the QGP behaves like a fluid.  
हालाँकि, इनका व्यवहार अधिक आश्चर्यजनक रहा है; गैस की तरह व्यवहार करने के बजाय QGP एक द्रव की भाँति व्यवहार करता है।
- By smashing together oxygen nuclei at the Large Hadron Collider (LHC), researchers have found the smallest dollop of QGP — so far — that still behaves like a fluid.  
लार्ज हैड्रॉन कोलाइडर (LHC) में ऑक्सीजन नाभिकों की टक्कर कराकर शोधकर्ताओं ने अब तक का सबसे छोटा QGP समूह खोजा है, जो अभी भी द्रव की तरह व्यवहार करता है।
- The new study addresses a different question: how small can a droplet of matter be and still have fluid-like behaviour?  
यह नया अध्ययन एक भिन्न प्रश्न का उत्तर खोजता है: पदार्थ की एक बूंद कितनी छोटी हो सकती है और फिर भी द्रव-सदृश व्यवहार प्रदर्शित कर सकती है?
- The LHC usually smashes together protons.  
LHC सामान्यतः प्रोटॉनों की टक्कर कराता है।
- The researchers picked oxygen ions because they occupy a middle ground between the tiny clumps of energy and matter created by smushed protons and the massive ones formed by lead ions.  
शोधकर्ताओं ने ऑक्सीजन आयनों का चयन इसलिए किया क्योंकि वे प्रोटॉनों की टक्कर से बनने वाले अत्यंत छोटे ऊर्जा-पदार्थ समूहों और सीसा आयनों से बनने वाले विशाल समूहों के बीच की स्थिति का प्रतिनिधित्व करते हैं।
- A middle ground that could reveal the tipping point where subatomic matter starts to resemble a fluid.  
यह एक ऐसी मध्यवर्ती अवस्था है जो उस निर्णायक बिंदु को उजागर कर सकती है जहाँ उप-परमाण्विक पदार्थ द्रव जैसा दिखाई देने लगता है।
- Properties like viscosity and flow are associated with fluids, and these fluids usually have an enormous number of particles.  
श्यानता (Viscosity) और प्रवाह (Flow) जैसे गुण द्रवों से संबंधित होते हैं, और ऐसे द्रवों में सामान्यतः अत्यधिक संख्या में कण होते हैं।
- A droplet of water sliding down a wall has quadrillions of water molecules.  
दीवार पर फिसलती हुई जल की एक बूंद में क्वाड्रिलियन संख्या में जल अणु होते हैं।



# Is climate research being held back by local instrumentation?

What are India's biggest gaps in climate research? Why do prototypes fail to become products?

ISS IAS

Jacob Koshy

The story so far:

Mega Science Vision-2035 report on Climate Research is a roadmap prepared by the Indian climate research community with the Indian Institute of Science (IISc), Bengaluru, as the nodal institution, and submitted to the Office of the Principal Scientific Adviser (PSA) to the Government of India, was made public this week.

What is its central message?

The central message of the report is that India has effectively lost the ability to build its own scientific instruments. "Today, virtually no company in India manufactures quality scientific instruments for climate research," it

states, adding that "billions of rupees have been spent and continue to be spent on procuring instruments manufactured elsewhere." Worse, imported instruments are often used "without knowing the principle of operation, the built-in assumptions... and their limitations," and left uncalibrated for years — producing, in the report's words, "incorrect data being reported in national and international journals, often leading to questions on the credibility of Indian science."

What is the Mega Science Vision exercise?

The Mega Science Vision exercise, historically used to plan large, long-horizon projects in nuclear and high-energy physics, was for the first time extended to climate research, ecology and astronomy, and facilitated by the PSA's

office under Prof. Ajay K. Sood. A working group chaired by Prof. S.K. Sathesh, with former Indian National Centre for Ocean Information Services (INCOIS) director Dr. S.C. Shenoi, as member-secretary, drew on consultations with over 3,000 researchers. Crucially, the document calls itself "a Climate Research community document" of "hopes and aspirations" whose projects are "indicative" — it is neither a mandatory prescription nor a statement of government policy or funding.

Hasn't India built any of its own climate instruments?

It has built prototypes, but rarely products. The report notes that Indian engineers can design and demonstrate instruments, "some of which have already been demonstrated successfully," yet

"they are not often translated into final industrial products." Examples include automatic profiling floats developed at the National Institute of Ocean Technology for ocean observation, and automatic weather stations by the India Meteorological Department and ISRO. Although transferred to industry, "most of them have not reached the market yet." Tellingly, the first phase of the proposed sensor programme is an audit to identify why such technologies fail to scale to production. The suggested remedy — mandating that most instruments be made in India, backed by assured procurement and pricing — sits uneasily with recent experience: the Government e-Marketplace (GeM) portal, made mandatory to support domestic vendors, was rolled back for scientific institutions in June 2025 after scientists found it hindered access to customised, high-quality equipment.

Why study uncontrolled renewables?

Although renewable energy seems to be the right solution to replace polluting sources, the report cautions that studies are needed to assess the long-term effects of uncontrolled tapping of natural resources — even as it insists renewables must remain a priority to sustain recent momentum. India, which has pledged 500 GW of non-fossil capacity by 2030,

crossed the halfway mark in installed capacity in 2025. The report also calls for scientific methods to estimate the social cost of carbon, a "polluter pays" mechanism to prevent the atmosphere from becoming a dumping ground, and measures to offset the burden of carbon taxation on the poor.

What else in the report is of importance?

The report proposes a pan-India Climate and Health Observatory under a mega project on adaptation and resilience, reflecting how thinly India tracks climate-related health impacts. It outlines eight mega projects spanning observational networks, indigenous sensors, satellites, two strands of climate modelling, field campaigns, carbon-neutrality research and adaptation science, to be overseen by a high-level apex committee. On science, it enters contested ground, backing a dense Black Carbon observatory network despite disputed claims about its relative role in global warming. It flags India's thin paleoclimatic networks as a gap in understanding the monsoon's deep past, and the risk of crossing tipping points such as ice-sheet collapse and shifts in ocean circulation. It also warns of limited trained manpower, including in environmental epidemiology.

## 04J6. Is climate research being held back by local instrumentation?

क्या स्थानीय उपकरणों की कमी जलवायु अनुसंधान को पीछे रोक रही है?

- A **Mega Science Vision-2035** report on **Climate Research** is a roadmap prepared by the Indian climate research community with the **Indian Institute of Science (IISc), Bengaluru**, as the nodal institution, and submitted to the **Office of the Principal Scientific Adviser (PSA) to the Government of India**, was made public this week.

जलवायु अनुसंधान पर मेगा साइंस विज़न-2035 रिपोर्ट भारतीय जलवायु अनुसंधान समुदाय द्वारा भारतीय विज्ञान संस्थान (IISc), बंगलुरु को नोडल संस्था बनाकर तैयार किया गया एक रोडमैप है, जिसे भारत सरकार के प्रधान वैज्ञानिक सलाहकार (PSA) कार्यालय को प्रस्तुत किया गया था और इसे इस सप्ताह सार्वजनिक किया गया।

What is its central message?

इसका केंद्रीय संदेश क्या है?

- The central message of the report is that India has effectively lost the ability to build its own scientific instruments. रिपोर्ट का केंद्रीय संदेश यह है कि भारत प्रभावी रूप से अपने स्वयं के वैज्ञानिक उपकरण बनाने की क्षमता खो चुका है।
- "Today, virtually no company in India manufactures quality scientific instruments for climate research," it states, adding that "billions of rupees have been spent and continue to be spent on procuring instruments manufactured elsewhere." रिपोर्ट में कहा गया है कि "आज भारत में लगभग कोई भी कंपनी जलवायु अनुसंधान के लिए गुणवत्तापूर्ण वैज्ञानिक उपकरणों का निर्माण नहीं करती," और यह भी जोड़ा गया है कि "विदेशों में निर्मित उपकरणों की खरीद पर अरबों रुपये खर्च किए जा चुके हैं और अब भी किए जा रहे हैं।"
- Worse, imported instruments are often used "without knowing the principle of operation, the built-in assumptions... and their limitations," and left uncalibrated for years — producing, in the report's words, "incorrect data being reported in national and international journals, often leading to questions on the credibility of Indian science."

इससे भी अधिक गंभीर बात यह है कि आयातित उपकरणों का उपयोग अक्सर "उनके संचालन सिद्धांत, अंतर्निहित मान्यताओं तथा सीमाओं को जाने बिना" किया जाता है और उन्हें वर्षों तक अंशांकित (कैलिब्रेट) नहीं किया जाता, जिसके परिणामस्वरूप रिपोर्ट के शब्दों में "राष्ट्रीय और अंतरराष्ट्रीय पत्रिकाओं में गलत आँकड़े प्रकाशित होते हैं, जिससे भारतीय विज्ञान की विश्वसनीयता पर प्रश्न उठते हैं।"



## What is the Mega Science Vision exercise?

### मेगा साइंस विज्ञान अभ्यास क्या है?

- The **Mega Science Vision** exercise, historically used to plan large, long-horizon projects in nuclear and high-energy physics, was for the first time extended to climate research, ecology and astronomy, and facilitated by the PSA's office under **Prof. Ajay K. Sood**.

मेगा साइंस विज्ञान अभ्यास, जिसका उपयोग ऐतिहासिक रूप से परमाणु और उच्च-ऊर्जा भौतिकी की दीर्घकालिक परियोजनाओं की योजना बनाने के लिए किया जाता था, पहली बार जलवायु अनुसंधान, पारिस्थितिकी और खगोल विज्ञान तक विस्तारित किया गया और इसे प्रो. अजय के. सूद के नेतृत्व वाले PSA कार्यालय द्वारा संचालित किया गया।

- A working group chaired by **Prof. S.K. Satheesh**, with former **Indian National Centre for Ocean Information Services (INCOIS)** director **Dr. S.S.C. Shenoi** as member-secretary, drew on consultations with over **3,000 researchers**.

प्रो. एस.के. सतीश की अध्यक्षता वाले कार्य समूह तथा पूर्व भारतीय राष्ट्रीय महासागर सूचना सेवा केंद्र (INCOIS) के निदेशक डॉ. एस.एस.सी. शेनॉय के सदस्य-सचिवत्व में, 3,000 से अधिक शोधकर्ताओं के साथ परामर्श किया गया।

- Crucially, the document calls itself “a Climate Research community document” of “hopes and aspirations” whose projects are “indicative” — it is neither a mandatory prescription nor a statement of government policy or funding.

महत्वपूर्ण रूप से, यह दस्तावेज़ स्वयं को “आशाओं और आकांक्षाओं” का “जलवायु अनुसंधान समुदाय दस्तावेज़” कहता है, जिसकी परियोजनाएँ केवल “संकेतात्मक” हैं; यह न तो अनिवार्य निर्देश है और न ही सरकारी नीति अथवा वित्तपोषण का आधिकारिक वक्तव्य।

## Hasn't India built any of its own climate instruments?

### क्या भारत ने अपने स्वयं के जलवायु उपकरण विकसित नहीं किए हैं?

- The report notes that Indian engineers can design and demonstrate instruments, “some of which have already been demonstrated successfully,” yet “they are not often translated into final industrial products.”

रिपोर्ट में कहा गया है कि भारतीय अभियंता उपकरणों का डिज़ाइन और प्रदर्शन करने में सक्षम हैं, “जिनमें से कुछ का सफल प्रदर्शन भी हो चुका है,” किंतु “उन्हें प्रायः अंतिम औद्योगिक उत्पादों में परिवर्तित नहीं किया जाता।”

- Examples include **automatic profiling floats** developed at the **National Institute of Ocean Technology** for ocean observation, and **automatic weather stations** by the **India Meteorological Department** and **ISRO**.

उदाहरणों में महासागरीय अवलोकन हेतु राष्ट्रीय महासागर प्रौद्योगिकी संस्थान द्वारा विकसित स्वचालित प्रोफाइलिंग फ्लोट्स, तथा भारत मौसम विज्ञान विभाग और इसरो द्वारा विकसित स्वचालित मौसम केंद्र शामिल हैं।

- Although transferred to industry, “most of them have not reached the market yet.” यद्यपि इन तकनीकों को उद्योगों को हस्तांतरित किया गया है, फिर भी “इनमें से अधिकांश अभी तक बाज़ार तक नहीं पहुँच पाए हैं।”

- Tellingly, the first phase of the proposed sensor programme is an audit to identify why such technologies fail to scale to production.

महत्वपूर्ण रूप से, प्रस्तावित सेंसर कार्यक्रम का पहला चरण यह जाँच करना है कि ऐसी प्रौद्योगिकियाँ बड़े पैमाने पर उत्पादन तक क्यों नहीं पहुँच पातीं।

- The suggested remedy — mandating that most instruments be made in India, backed by assured procurement and pricing — sits uneasily with recent experience.

प्रस्तावित समाधान — अधिकांश उपकरणों का भारत में निर्माण सुनिश्चित करना तथा उन्हें गारंटीकृत खरीद और मूल्य समर्थन देना — हाल के अनुभवों के साथ पूरी तरह मेल नहीं खाता।



- The **Government e-Marketplace (GeM)** portal, made mandatory to support domestic vendors, was rolled back for scientific institutions in **June 2025** after scientists found it hindered access to customised, high-quality equipment.

घरेलू विक्रेताओं को प्रोत्साहित करने के लिए अनिवार्य बनाया गया **गवर्नमेंट ई-मार्केटप्लेस (GeM)** पोर्टल **जून 2025** में वैज्ञानिक संस्थानों के लिए वापस ले लिया गया, क्योंकि वैज्ञानिकों ने पाया कि इससे अनुकूलित और उच्च गुणवत्ता वाले उपकरणों तक पहुँच बाधित हो रही थी।

### Why study uncontrolled renewables?

अनियंत्रित नवीकरणीय ऊर्जा का अध्ययन क्यों आवश्यक है?

- Although **renewable energy** seems to be the right solution to replace polluting sources, the report cautions that studies are needed to assess the long-term effects of uncontrolled tapping of natural resources.

यद्यपि **नवीकरणीय ऊर्जा** प्रदूषणकारी स्रोतों का उचित विकल्प प्रतीत होती है, रिपोर्ट चेतावनी देती है कि प्राकृतिक संसाधनों के अनियंत्रित दोहन के दीर्घकालिक प्रभावों का अध्ययन आवश्यक है।

- India, which has pledged 500 GW of non-fossil capacity by 2030, crossed the halfway mark in installed capacity in 2025.**

भारत, जिसने 2030 तक 500 गीगावाट गैर-जीवाश्म ऊर्जा क्षमता स्थापित करने का संकल्प लिया है, 2025 में इस लक्ष्य के आधे से अधिक स्तर तक पहुँच चुका था।

- The report also calls for scientific methods to estimate the **social cost of carbon**, a “**polluter pays**” mechanism to prevent the atmosphere from becoming a dumping ground, and measures to offset the burden of carbon taxation on the poor.

रिपोर्ट **कार्बन की सामाजिक लागत** का आकलन करने के लिए वैज्ञानिक विधियों, वातावरण को अपशिष्ट-स्थल बनने से रोकने हेतु “**प्रदूषक भुगतान करे**” तंत्र, तथा गरीबों पर कार्बन कर के बोझ को कम करने के उपायों की भी सिफारिश करती है।

### What else in the report is of importance?

रिपोर्ट में और क्या महत्वपूर्ण है?

- The report proposes a pan-India **Climate and Health Observatory** under a mega project on adaptation and resilience, reflecting how thinly India tracks climate-related health impacts.

रिपोर्ट अनुकूलन और लचीलापन विषयक एक मेगा परियोजना के अंतर्गत अखिल भारतीय **जलवायु एवं स्वास्थ्य वेधशाला** स्थापित करने का प्रस्ताव रखती है, जो यह दर्शाती है कि भारत जलवायु-जनित स्वास्थ्य प्रभावों की निगरानी कितनी सीमित रूप से करता है।

- It outlines **eight mega projects** spanning observational networks, indigenous sensors, satellites, two strands of climate modelling, field campaigns, carbon-neutrality research and adaptation science, to be overseen by a high-level apex committee.

रिपोर्ट में **आठ मेगा परियोजनाओं** की रूपरेखा प्रस्तुत की गई है, जिनमें अवलोकन नेटवर्क, स्वदेशी सेंसर, उपग्रह, जलवायु मॉडलिंग की दो धाराएँ, क्षेत्रीय अभियान, कार्बन-तटस्थता अनुसंधान तथा अनुकूलन विज्ञान शामिल हैं, जिनकी निगरानी एक उच्चस्तरीय शीर्ष समिति द्वारा की जाएगी।

- On science, it enters contested ground, backing a dense **Black Carbon** observatory network despite disputed claims about its relative role in global warming.

वैज्ञानिक दृष्टि से रिपोर्ट एक विवादास्पद क्षेत्र में प्रवेश करती है और वैश्विक तापन में इसकी भूमिका को लेकर मतभेद होने के बावजूद घने **ब्लैक कार्बन वेधशाला नेटवर्क** का समर्थन करती है।

- It flags India's thin **paleoclimate networks** as a gap in understanding the monsoon's deep past, and the risk of crossing **tipping points** such as ice-sheet collapse and shifts in ocean circulation.

रिपोर्ट भारत के सीमित **पैलियोक्लाइमेट नेटवर्क** को मानसून के प्राचीन इतिहास को समझने में एक प्रमुख कमी



के रूप में चिह्नित करती है तथा हिमचादरों के पतन और महासागरीय परिसंचरण में परिवर्तन जैसे टिपिंग पॉइंट्स को पार करने के जोखिम की ओर भी संकेत करती है।

- It also warns of **limited trained manpower, including in environmental epidemiology**. रिपोर्ट पर्यावरणीय महामारी विज्ञान सहित विभिन्न क्षेत्रों में प्रशिक्षित मानव संसाधन की कमी के प्रति भी चेतावनी देती है।

## What Delhi HC's pathbreaking ruling on Google keyword advertising means

Justice Mini Pushkarna assessed if a company can buy another's registered trademark as a keyword on Google Ads to have their ads appear first in searches for that trademark; in 2013, Hindware Ltd. discovered that its rival companies had purchased the trademark 'Hindware' in such a manner

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### EXPLAINER

Soibam Rocky Singh  
NEW DELHI

A recent ruling of the Delhi High Court in a long-running trademark dispute initiated by Hindware Limited could shape how Google handles keyword advertising, especially when trademarks are used in sponsored search results.

In a 163-page judgment delivered on May 22, Justice Mini Pushkarna examined whether a company can purchase another company's registered trademark as a keyword under Google Ads so that their advertisements appear on top of the list when users search for that trademark.

#### The dispute

In early 2013, Hindware Limited, which is in the business of sanitaryware products, discovered that its rival sanitaryware companies, Grohe India Private Limited and Cera Sanitaryware Limited, had purchased the trademark 'Hindware' as a keyword through Google's AdWords programme.

The result was that whenever a consumer searched for the word 'Hindware' on the Google search engine, the first result that appeared was for the website of Cera. Also, when someone searched 'Hindware Sanitary' or 'Hindware Sanitaryware', the first result came from the website of Grohe.

Hindware argued that its registered and well-known trademark is being used by Google by offering



**Word power:** Google runs a programme 'Google AdWords', a form of keyword advertising that allows advertisers to place advertisements along with search results in their search engine. GETTY IMAGES/ISTOCK

or suggesting it to competitors or any other entity for the generation of advertisements. Hindware said this was being done without their prior consent or approval.

Subsequently, Cera and Grohe settled with Hindware, leaving the core legal battle to continue against Google India and Google LLC.

#### Keyword advertising

Google runs a programme known as 'Google AdWords', which is a form of keyword advertising that allows advertisers to place advertisements along with search results in their search engine, [www.google.com](http://www.google.com).

Under Google AdWords, advertisers bid for words or phrases called 'keywords' that trigger or generate a sponsored advertisement when a user enters those terms into Google Search.

For example, if someone specifically searches for Nokia or Sony, another



On our Ads policy on trademark keywords, we have a clear and stated policy that doesn't allow competitor advertisers to use trademarked terms in the ad-text

company could purchase the keywords 'Nokia' or 'Sony' in return for a fee earned by Google, so that instead of the organic result, i.e., websites of Nokia or Sony, the user would be shown the advertisement or websites of the ad purchaser.

#### Hindware's objection

Hindware claimed that 'HINDWARE' is a registered and well-known trademark with substantial goodwill built over decades.

The company contended that the use of its trademark as a keyword for the display of advertisements

clearly amounts to use of the trademark "in advertising" within the meaning of Section 29(6) of the Trade Marks Act.

It argued that if a consumer specifically searches the term 'Hindware', it is clear that he is specifically looking for their products. The fact that the first search result of another company is shown to the consumer is bound to cause confusion and divert potential customers to rival brands.

Until 2009, Google did not permit the use of trademarks as keywords in India, but the policy was changed post the year 2009. It said that the policy applicable in India is a deviation from the policy of Google followed for countries in the European Union (EU) and European Free Trade Association (EFTA).

#### Judgment's importance

The case touches upon a growing global conflict between trademark law and digital advertising models.

Search engines earn revenue through keyword advertising systems. By auctioning the registered trademark to rivals, Google generates revenue from multiple competitors of the trademark owner.

The court ruled in favour of Hindware restraining Google from using the name 'Hindware' or any combination of related words as part of advertising keywords.

It observed that Google's conduct amounts to "free-riding" as it monetises the investments made by the trademark owner over the years. By actively suggesting, prompting and auctioning trademarks to third parties, the court said

Google rides on the goodwill of the trademark's reputation, selling off the power of the mark in attracting consumers to other rivals in order to increase enrolment in its own AdWords Policy and earn more profits.

"In doing so, Google has attempted to sell something that it simply does not own."

#### Beyond the case

The decision is likely to influence trademark disputes involving online advertising in India. It could affect how freely companies can use competitors' brand names in online advertisements and search results.

"We duly respect and operate in accordance with all local laws, and in instances where the orders are overbroad or inconsistent with our policies, we work to explain our position as per the legal process in the country," Google said in a statement to *The Hindu*.

"Specifically on our Ads policy on trademark keywords, we have a clear and stated policy that does not allow competitor advertisers to use trademarked terms in the ad-text of an ad. This policy is consistently applied globally and is in accordance with the Indian trademark law."

The company has held that so-called backend use of a trademark keyword is permissible to allow for small firms to compete with established incumbents, and said that it therefore only bans the deceptive use of competing trademark keywords in the actual text of ads, and not in the bidding process.

### 04J6. What Delhi HC's pathbreaking ruling on Google keyword advertising means

गूगल कीवर्ड विज्ञापन पर दिल्ली हाईकोर्ट के ऐतिहासिक फैसले का क्या अर्थ है

- **Justice Mini Pushkarna** assessed if a company can buy another's registered trademark as a keyword on **Google Ads** to have their ads appear first in searches for that trademark.

न्यायमूर्ति मिनी पुष्कर्णा ने यह जांच की कि क्या कोई कंपनी Google Ads पर किसी अन्य कंपनी के पंजीकृत ट्रेडमार्क को कीवर्ड के रूप में खरीद सकती है ताकि उस ट्रेडमार्क की खोज होने पर उसका विज्ञापन सबसे पहले दिखाई दे।



- In 2013, Hindware Ltd. discovered that its rival companies had purchased the trademark 'Hindware' in such a manner.  
2013 में हिंदवेयर लिमिटेड ने पाया कि उसकी प्रतिस्पर्धी कंपनियों ने 'Hindware' ट्रेडमार्क को इसी प्रकार खरीदा था।

## The dispute विवाद

- In early 2013, Hindware Limited, which is in the business of sanitaryware products, discovered that its rival sanitaryware companies, Grohe India Private Limited and Cera Sanitaryware Limited, had purchased the trademark 'Hindware' as a keyword through Google's AdWords programme.  
2013 की शुरुआत में, सैनिटरीवेयर उत्पादों के व्यवसाय में लगी हिंदवेयर लिमिटेड ने पाया कि उसकी प्रतिद्वंद्वी कंपनियों Grohe India Private Limited और Cera Sanitaryware Limited ने गूगल के AdWords कार्यक्रम के माध्यम से 'Hindware' ट्रेडमार्क को कीवर्ड के रूप में खरीदा था।
- The result was that whenever a consumer searched for the word 'Hindware' on the Google search engine, the first result that appeared was for the website of Cera.  
परिणामस्वरूप, जब भी कोई उपभोक्ता गूगल सर्च इंजन पर 'Hindware' शब्द खोजता था, तो सबसे पहला परिणाम Cera की वेबसाइट का दिखाई देता था।
- Also, when someone searched 'Hindware Sanitary' or 'Hindware Sanitaryware', the first result came from the website of Grohe.  
इसी प्रकार, जब कोई 'Hindware Sanitary' या 'Hindware Sanitaryware' खोजता था, तो पहला परिणाम Grohe की वेबसाइट से आता था।
- Hindware argued that its registered and well-known trademark is being used by Google by offering or suggesting it to competitors or any other entity for the generation of advertisements.  
हिंदवेयर ने तर्क दिया कि उसके पंजीकृत और प्रसिद्ध ट्रेडमार्क का उपयोग गूगल द्वारा प्रतिस्पर्धियों या अन्य संस्थाओं को विज्ञापन उत्पन्न करने के लिए उपलब्ध कराकर किया जा रहा है।
- Hindware said this was being done without their prior consent or approval.  
हिंदवेयर ने कहा कि यह कार्य उनकी पूर्व अनुमति या स्वीकृति के बिना किया जा रहा था।
- Subsequently, Cera and Grohe settled with Hindware, leaving the core legal battle to continue against Google India and Google LLC.  
बाद में Cera और Grohe ने हिंदवेयर के साथ समझौता कर लिया, जिससे मुख्य कानूनी लड़ाई Google India और Google LLC के विरुद्ध जारी रही।

## Keyword advertising कीवर्ड विज्ञापन

- Google runs a programme known as 'Google AdWords', which is a form of keyword advertising that allows advertisers to place advertisements along with search results in their search engine, [www.google.com](http://www.google.com).  
गूगल 'Google AdWords' नामक एक कार्यक्रम चलाता है, जो कीवर्ड विज्ञापन का एक रूप है और विज्ञापनदाताओं को [www.google.com](http://www.google.com) पर खोज परिणामों के साथ अपने विज्ञापन प्रदर्शित करने की अनुमति देता है।
- Under Google AdWords, advertisers bid for words or phrases called 'keywords' that trigger or generate a sponsored advertisement when a user enters those terms into Google Search. Google AdWords के अंतर्गत विज्ञापनदाता 'कीवर्ड्स' कहलाने वाले शब्दों या वाक्यांशों पर बोली लगाते हैं, जो उपयोगकर्ता द्वारा गूगल सर्च में दर्ज किए जाने पर प्रायोजित विज्ञापन प्रदर्शित करते हैं।



- For example, if someone specifically searches for **Nokia** or **Sony**, another company could purchase the keywords '**Nokia**' or '**Sony**' in return for a fee earned by Google, so that instead of the organic result, i.e., websites of Nokia or Sony, the user would be shown the advertisement or websites of the ad purchaser.

उदाहरण के लिए, यदि कोई व्यक्ति **Nokia** या **Sony** खोजता है, तो कोई अन्य कंपनी '**Nokia**' या '**Sony**' कीवर्ड खरीद सकती है, जिसके बदले गूगल शुल्क प्राप्त करता है, और तब उपयोगकर्ता को Nokia या Sony की वेबसाइटों के बजाय विज्ञापन खरीदने वाली कंपनी का विज्ञापन या वेबसाइट दिखाई जाएगी।

## Hindware's objection

### हिंदवेयर की आपत्ति

- Hindware claimed that '**HINDWARE**' is a registered and well-known trademark with substantial goodwill built over decades.  
हिंदवेयर ने दावा किया कि '**HINDWARE**' एक पंजीकृत और प्रसिद्ध ट्रेडमार्क है, जिसकी प्रतिष्ठा कई दशकों में निर्मित हुई है।
- The company contended that the use of its trademark as a keyword for the display of advertisements clearly amounts to use of the trademark "in advertising" within the meaning of **Section 29(6) of the Trade Marks Act**.  
कंपनी ने तर्क दिया कि विज्ञापनों के प्रदर्शन हेतु उसके ट्रेडमार्क का कीवर्ड के रूप में उपयोग **Trade Marks Act की धारा 29(6)** के अंतर्गत "विज्ञापन में ट्रेडमार्क के उपयोग" के समान है।
- It argued that if a consumer specifically searches the term '**Hindware**', it is clear that he is specifically looking for their products.  
कंपनी ने कहा कि यदि कोई उपभोक्ता विशेष रूप से '**Hindware**' खोजता है, तो स्पष्ट है कि वह हिंदवेयर के उत्पादों की तलाश कर रहा है।
- The fact that the first search result of another company is shown to the consumer is bound to cause confusion and divert potential customers to rival brands.  
ऐसी स्थिति में किसी अन्य कंपनी का पहला परिणाम दिखाया जाना उपभोक्ताओं में भ्रम उत्पन्न करेगा और संभावित ग्राहकों को प्रतिस्पर्धी ब्रांडों की ओर मोड़ देगा।
- Until **2009**, Google did not permit the use of trademarks as keywords in India, but the policy was changed post the year **2009**.  
**2009** तक गूगल भारत में ट्रेडमार्क को कीवर्ड के रूप में उपयोग करने की अनुमति नहीं देता था, लेकिन **2009** के बाद यह नीति बदल दी गई।
- It said that the policy applicable in India is a deviation from the policy of Google followed for countries in the **European Union (EU)** and **European Free Trade Association (EFTA)**.  
हिंदवेयर ने कहा कि भारत में लागू नीति, **यूरोपीय संघ (EU)** और **European Free Trade Association (EFTA)** देशों में लागू गूगल की नीति से भिन्न है।

## Google's defence

### गूगल का पक्ष

- Google argued keywords act as a backend trigger for display of the advertisements in response to the search query entered by a user.  
गूगल ने तर्क दिया कि कीवर्ड केवल बैकएंड ट्रिगर के रूप में कार्य करते हैं, जो उपयोगकर्ता द्वारा दर्ज खोज प्रश्न के उत्तर में विज्ञापन प्रदर्शित करते हैं।
- Since users cannot see the keywords provided by the advertiser, such use of trademarks as keywords cannot be said to amount to 'use' under the **Trade Marks Act**.  
चूँकि उपयोगकर्ता विज्ञापनदाता द्वारा चुने गए कीवर्ड नहीं देख सकते, इसलिए ट्रेडमार्क का इस प्रकार उपयोग **Trade Marks Act** के अंतर्गत 'उपयोग' नहीं माना जा सकता।



- When multiple advertisers seek to choose the same word as a keyword, including a trademarked term, Google conducts an auction or bidding on the trademarked term and earns a **Cost-Per-Click** amount as revenue.  
जब कई विज्ञापनदाता एक ही शब्द या ट्रेडमार्क वाले शब्द को कीवर्ड बनाना चाहते हैं, तो गूगल उस पर नीलामी या बोली प्रक्रिया संचालित करता है और **Cost-Per-Click** के रूप में राजस्व अर्जित करता है।
- On the question of confusion among users, Google argued that the inorganic or sponsored search results are labelled with a prefix 'ad' to distinguish them from organic search results, eliminating the likelihood of confusion among the users.  
उपयोगकर्ताओं में भ्रम की संभावना के प्रश्न पर गूगल ने कहा कि प्रायोजित परिणामों के साथ 'ad' लिखा होता है, जिससे वे सामान्य खोज परिणामों से अलग पहचाने जा सकते हैं और भ्रम की संभावना समाप्त हो जाती है।

## Judgment's importance

### निर्णय का महत्व

- The case touches upon a growing global conflict between **trademark law** and **digital advertising models**.  
यह मामला **ट्रेडमार्क कानून** और **डिजिटल विज्ञापन मॉडल** के बीच बढ़ते वैश्विक संघर्ष से जुड़ा है।
- Search engines earn revenue through keyword advertising systems.  
सर्च इंजन कीवर्ड विज्ञापन प्रणाली के माध्यम से राजस्व अर्जित करते हैं।
- By auctioning the registered trademark to rivals, Google generates revenue from multiple competitors of the trademark owner.  
पंजीकृत ट्रेडमार्क को प्रतिस्पर्धियों के लिए नीलाम करके गूगल ट्रेडमार्क स्वामी के कई प्रतिस्पर्धियों से राजस्व प्राप्त करता है।
- The court ruled in favour of **Hindware**, restraining Google from using the name '**Hindware**' or any combination of related words as part of advertising keywords.  
अदालत ने **हिंदवेयर** के पक्ष में निर्णय देते हुए गूगल को '**Hindware**' नाम या उससे जुड़े शब्दों के संयोजन को विज्ञापन कीवर्ड के रूप में उपयोग करने से रोक दिया।
- It observed that Google's conduct amounts to "**free-riding**" as it monetises the investments made by the trademark owner over the years.  
अदालत ने कहा कि गूगल का यह व्यवहार "**फ्री-राइडिंग**" है क्योंकि वह ट्रेडमार्क स्वामी द्वारा वर्षों में किए गए निवेश से लाभ कमा रहा है।
- By actively suggesting, prompting and auctioning trademarks to third parties, the court said Google rides on the goodwill of the trademark's reputation, selling off the power of the mark in attracting consumers to other rivals in order to increase enrollment in its own **AdWords Policy** and earn more profits.  
अदालत ने कहा कि गूगल तीसरे पक्षों को ट्रेडमार्क सुझाकर और नीलाम करके उसकी प्रतिष्ठा और सद्भावना का लाभ उठाता है तथा उपभोक्ताओं को प्रतिस्पर्धियों की ओर आकर्षित करने की शक्ति को बेचकर अपनी **AdWords Policy** में अधिक भागीदारी और लाभ अर्जित करता है।
- "In doing so, Google has attempted to sell something that it simply does not own."  
"ऐसा करके गूगल ने ऐसी वस्तु बेचने का प्रयास किया है, जिसका वह स्वामी ही नहीं है।"

## Beyond the case

### मामले से आगे

- The decision is likely to influence trademark disputes involving online advertising in India.  
यह निर्णय भारत में ऑनलाइन विज्ञापन से जुड़े ट्रेडमार्क विवादों को प्रभावित कर सकता है।
- It could affect how freely companies can use competitors' brand names in online advertisements and search results.



यह इस बात को प्रभावित करेगा कि कंपनियाँ ऑनलाइन विज्ञापनों और खोज परिणामों में प्रतिस्पर्धियों के ब्रांड नामों का कितनी स्वतंत्रता से उपयोग कर सकती हैं।

- “We duly respect and operate in accordance with all local laws, and in instances where the orders are overbroad or inconsistent with our policies, we work to explain our position as per the legal process in the country,” Google said in a statement.  
गूगल ने अपने बयान में कहा, “हम सभी स्थानीय कानूनों का सम्मान करते हैं और उनका पालन करते हैं, तथा जहाँ आदेश अत्यधिक व्यापक हों या हमारी नीतियों से मेल न खाते हों, वहाँ हम कानूनी प्रक्रिया के अनुसार अपना पक्ष स्पष्ट करते हैं।”
- “Specifically on our Ads policy on trademark keywords, we have a clear and stated policy that does not allow competitor advertisers to use trademarked terms in the ad-text of an ad.”  
“विशेष रूप से ट्रेडमार्क कीवर्ड से संबंधित हमारी विज्ञापन नीति स्पष्ट है और प्रतिस्पर्धी विज्ञापनदाताओं को विज्ञापन के पाठ में ट्रेडमार्क शब्दों के उपयोग की अनुमति नहीं देती।”
- “This policy is consistently applied globally and is in accordance with the Indian trademark law.”  
“यह नीति वैश्विक स्तर पर समान रूप से लागू की जाती है और भारतीय ट्रेडमार्क कानून के अनुरूप है।”
- The company has held that so-called backend use of a trademark keyword is permissible to allow for small firms to compete with established incumbents, and said that it therefore only bans the deceptive use of competing trademark keywords in the actual text of ads, and not in the bidding process.  
कंपनी का मानना है कि ट्रेडमार्क कीवर्ड का तथाकथित बैकएंड उपयोग छोटी कंपनियों को स्थापित कंपनियों से प्रतिस्पर्धा करने का अवसर देता है, इसलिए वह केवल विज्ञापन के वास्तविक पाठ में प्रतिस्पर्धी ट्रेडमार्क के भ्रामक उपयोग पर प्रतिबंध लगाती है, न कि बोली प्रक्रिया में।

GS Paper III: Environment		04 June 2026
TOPICS COVERED		
04J6	<b>Reading for a warming world: books that rethink nature, development and survival</b> गर्म होती दुनिया को समझने के लिए पठन: ऐसी पुस्तकें जो प्रकृति, विकास और अस्तित्व पर पुनर्विचार करती हैं	
04J6	<b>Centre mulls policy to boost E85 fuel uptake</b> केंद्र E85 ईंधन के उपयोग को बढ़ावा देने के लिए नीति पर विचार कर रहा है	



# Reading for a warming world: books that rethink nature, development and survival

As heatwaves intensify and climate anxiety grows, a new set of books critiques the belief in technological fixes, highlights projects that risk ecological damage, and reimagines forests as spaces shaped by power, conflict and care, urging readers to rethink their relationship with nature and development

GS III: Environment  
Soma Basu

The severe heatwave this year has pushed temperatures beyond normal highs across some regions. The warming caused by human activity is not surprising as scientists have warned about it for decades.

What is more concerning is the lack of adequate collective action to address this crisis. Since human minds tend to focus on immediate threats rather than future ones, it is important to recognise that climate change is impacting us faster than is projected. Therefore, appropriate individual and systemic actions need to be prioritised. World Environment Day reminds us of the responsibility, and this year's theme – "Inspired by Nature. For Climate. For Our Future. 2026" – is all about focusing on nature-based solutions to combat the climate crisis.

#### The man who planted trees

Some powerful books deepen our understanding of sustainability. *Ghosts on Peepal Trees: My Journey From Folk Tales to Forests* (Ebury Press, to be released on June 5) is the memoir of environmentalist Peepal Baba alias Swami Prem Parivartan.

The book evokes memories of shade and green spaces, clean rivers, forests and natural resources, singing birds, and fertile soil. It shows how these landscapes teach coexistence and help us understand the architecture of forests, the politics of

ecosystem management, the economics of the environment, and even ecotheology. It urges us "to listen to the Earth and believe in our ability to care about the natural world."

For five decades, Peepal Baba worked towards restoring vegetation on 2,70,000 hectares by planting 26 million trees in 226 districts across 21 States in India. While rooted in the idea of individual and community action, his work also points to the need for broader ecological responsibility, where everyday practices – planting trees, composting waste, feeding birds, recycling, developing green patches or rooftop nurseries, and cycling – become part of a larger cultural and environmental shift. He urges others to act in whatever way they can.

Peepal Baba also expresses concern about the modern world's growing reliance on technological solutions – from synthetic DNA and genetic modification to crops that bypass pollinators and livestock that are raised entirely without natural conditions such as sunlight. He warns against government policies lacking courage.

#### Impacting nature and communities

It is a fact that every city today is a story of concretisation, forgotten rivers, and vanished greens. In his latest book, *Island on Edge: The Great Nicobar Crisis* (2026, Westland), Pankaj Sekhsaria lifts the veil off the ₹82,000 crore mega infrastructure development project planned for the

Great Nicobar Island cautioning how it will irreversibly damage not only the fragile biodiversity of the region, but also the culture of indigenous communities and their languages.

The project, which includes the clearing of 130 sq. km of pristine tropical evergreen forest, is one of the many continued betrayals of the island. That is why, the author says, he has compiled this collection of research-based, data-driven articles to help readers understand the legal, ethical, and on-ground realities of Great Nicobar.

Echoing Peepal Baba's concerns about the "strange arrogance attached to development projects" and the belief that technology can overcome every obstacle, Sekhsaria critiques the pitfalls of building an airport, transshipment terminal, power plant, and new township on the island. Both authors point to actions detrimental to the environment and to culture. Instead of aligning with climate sensitivity, such development initiatives heavily deplete nature's ecological balance.

#### The changing face of forests

*India's Forests: Revisiting Nature and History* (Vintage Books, 2026), co-edited by Mahesh Rangarajan and Arupiyoti Saikia, is a reappraisal of forests as living contested spaces across the country. The authors refer to forests shaped by power, culture, and society, and redefined through conflict, negotiation, and care,

and why they mean different things to different people.

The book is an interesting critique and also a tribute to Ramachandra Guha's 1989 study of colonial and post-colonial forestry, *The Unquiet Woods*, that establishes the centrality of forests in our lives.

The ten essays cover a wide range of forest-related issues, tracing the history of forest management from the past to the present while looking ahead to more just and sustainable uses of natural resources.

At its core, this series connects forests to various constituents of nature and human society and prompts us to ask what forests are for, especially at a time when our cities are gasping for oxygen. If we allow nature to govern half our spaces, the rest will flourish on its own because ecosystems are capable of self-regulation. The book revisits the Chipko movement and other environmental struggles, highlighting the need to balance the use and conservation of nature and to distinguish between necessity and greed. It reiterates that the overexploitation and destruction of natural resources is ultimately self-destructive.

The more forests belong to communities, the greater their protection will be. Afforestation is no longer a luxury or merely a government policy; it is a matter of survival and a way of making amends with nature. The future can be secured only if everyone participates in healing the soil and, in turn, the climate.

## 04J6. Reading for a warming world: books that rethink nature, development and survival

गर्म होती दुनिया को समझने के लिए पठन: ऐसी पुस्तकें जो प्रकृति, विकास और अस्तित्व पर पुनर्विचार करती हैं

- **World Environment Day** reminds us of the responsibility, and this year's theme — "**Inspired by Nature. For Climate. For Our Future. 2026**" — is all about focusing on **nature-based solutions** to combat the climate crisis.

विश्व पर्यावरण दिवस हमें हमारी जिम्मेदारी की याद दिलाता है, और इस वर्ष की थीम — "**Inspired by Nature. For Climate. For Our Future. 2026**" — जलवायु संकट से निपटने के लिए प्रकृति-आधारित समाधानों पर केंद्रित है।

### The man who planted trees

वह व्यक्ति जिसने वृक्ष लगाए

- Some powerful books deepen our understanding of **sustainability**. कुछ प्रभावशाली पुस्तकें **सततता (सस्टेनेबिलिटी)** के प्रति हमारी समझ को और गहरा बनाती हैं।
- **Ghosts on Peepal Trees: My Journey From Folk Tales to Forests** (Ebury Press, to be released on June 5) is the memoir of environmentalist **Peepal Baba** alias **Swami Prem Parivartan**. **Ghosts on Peepal Trees: My Journey From Folk Tales to Forests** (Ebury Press, 5 जून को प्रकाशित होने वाली) पर्यावरणविद् **पीपल बाबा** उर्फ **स्वामी प्रेम परिवर्तन** का संस्मरण है।
- For five decades, **Peepal Baba** worked towards restoring vegetation on **2,70,000 hectares** by planting **26 million trees** in **226 districts** across **21 States** in India.



पाँच दशकों तक पीपल बाबा ने भारत के 21 राज्यों के 226 जिलों में 2.6 करोड़ वृक्ष लगाकर 2,70,000 हेक्टेयर क्षेत्र में वनस्पति पुनर्स्थापन का कार्य किया।

- In his latest book, **Island on Edge: The Great Nicobar Crisis (2026, Westland)**, **Pankaj Sekhsaria** lifts the veil off the **₹82,000 crore mega infrastructure development project** planned for the **Great Nicobar Island**.

अपनी नवीनतम पुस्तक **Island on Edge: The Great Nicobar Crisis (2026, Westland)** में पंकज सेखसरिया ने ग्रेट निकोबार द्वीप के लिए प्रस्तावित ₹82,000 करोड़ की मेगा अवसंरचना विकास परियोजना के वास्तविक प्रभावों को उजागर किया है।

- The project, which includes the clearing of **130 sq. km of pristine tropical evergreen forest**, is one of the many continued betrayals of the island.

यह परियोजना, जिसमें **130 वर्ग किलोमीटर के अछूते उष्णकटिबंधीय सदाबहार वन** की कटाई शामिल है, द्वीप के साथ किए जा रहे अनेक निरंतर विश्वासघातों में से एक है।

### The changing face of forests

#### वनों का बदलता स्वरूप

- India's Forests: Revisiting Nature and History (Vintage Books, 2026)**, co-edited by **Mahesh Rangarajan and Arupjyoti Saikia**, is a reappraisal of forests as living contested spaces across the country.

महेश रंगराजन और अरूपज्योति सैकिया द्वारा सह-संपादित **India's Forests: Revisiting Nature and History (Vintage Books, 2026)** पूरे देश में वनों को जीवंत और विवादित सामाजिक-पर्यावरणीय स्थलों के रूप में पुनर्मूल्यांकित करती है।

## Centre mulls policy to boost E85 fuel uptake

### GS III: Environment

The Hindu Bureau  
NEW DELHI

The government is actively examining supportive policy framework to accelerate affordable adoption of E85 fuel, said Union Minister for Petroleum and Natural Gas Hardeep Singh Puri.

Speaking at the launch of Hero MotoCorp's flex-fuel motorcycles on Wednesday, he said that E85 (85% blending of ethanol with gasoline), fuel would be "substantially cheaper than normal fuel [variant]".

"If 1% of annual petrol vehicle sales in India during ethanol supply year 2026-27 shifts to E85, over four crore litres of ethanol demand would be generated, [and] nearly ₹266 crore



Hardeep Singh Puri

estimated payments would be made to distillers," he said, adding that about ₹195 crore would be earned in foreign exchange savings, approximately 0.28 lakh metric tonnes (LMT) of crude oil imports would be reduced, net CO2 reduction of nearly 0.86 LMT will be achieved, and nearly ₹160 crore would go directly to farmers.

- The book revisits the **Chipko movement** and other environmental struggles, highlighting the need to balance the use and conservation of nature and to distinguish between necessity and greed.

### 04J6. Centre mulls policy to boost E85 fuel uptake

▶ केंद्र E85 ईंधन के उपयोग को बढ़ावा देने के लिए नीति पर विचार कर रहा है

- The government is actively examining a supportive **policy framework** to accelerate affordable adoption of **E85 fuel**, said Union Minister for Petroleum and Natural Gas **Hardeep Singh Puri**.

केंद्रीय पेट्रोलियम और प्राकृतिक गैस मंत्री **हरदीप सिंह पुरी** ने कहा कि सरकार **E85 ईंधन** को किफायती रूप से अपनाने में तेजी लाने के लिए सहायक **नीतिगत ढांचे** की सक्रिय रूप से समीक्षा कर रही है।

- Speaking at the launch of **Hero MotoCorp's flex-fuel motorcycles** on Wednesday, he said that **E85 (85% blending of ethanol with gasoline) fuel** would be "substantially cheaper than normal fuel [variant]".

बुधवार को **हीरो मोटोकॉर्प की फ्लेक्स-फ्यूल मोटरसाइकिलों** के लॉन्च के अवसर पर उन्होंने कहा कि **E85 (गैसोलीन में 85% एथेनॉल मिश्रण)** ईंधन "सामान्य ईंधन की तुलना में काफी सस्ता" होगा।



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- “If 1% of annual petrol vehicle sales in India during ethanol supply year 2026-27 shifts to E85, over four crore litres of ethanol demand would be generated, [and] nearly ₹266 crore estimated payments would be made to distillers,” he said.  
उन्होंने कहा, “यदि एथेनॉल आपूर्ति वर्ष 2026-27 के दौरान भारत में वार्षिक पेट्रोल वाहन बिक्री का 1% हिस्सा E85 की ओर स्थानांतरित हो जाए, तो चार करोड़ लीटर से अधिक एथेनॉल की मांग उत्पन्न होगी और आसवकों (Distillers) को लगभग ₹266 करोड़ का अनुमानित भुगतान किया जाएगा।”

<b>GS Paper III: Internal Security</b>	<b>04 June 2026</b>
<b>TOPICS COVERED</b>	
<b>04J6</b>	<b>Sourav Ganguly's security cover downgraded</b> सौरव गांगुली की सुरक्षा श्रेणी घटाई गई

## Sourav Ganguly's security cover downgraded

**GS III: Internal Security**  
**The Hindu Bureau**  
KOLKATA

The West Bengal government on Wednesday reduced the security cover for Sourav Ganguly, former captain of the Indian cricket team, from the Z-category to the Y-category.

The development was confirmed by officials of the West Bengal Police security wing as part of an “ongoing routine exercise” in reviewing the security cover of various prominent personalities in the State based on their threat assessments.

Under the new arrangement, he is expected to be provided with only three or four security personnel.

## 04J6. Sourav Ganguly's security cover downgraded

### सौरव गांगुली की सुरक्षा श्रेणी घटाई गई

- The West Bengal government on Wednesday reduced the security cover for Sourav Ganguly, former captain of the Indian cricket team, from the Z-category to the Y-category.

बुधवार को पश्चिम बंगाल सरकार ने भारतीय क्रिकेट टीम के पूर्व कप्तान सौरव गांगुली की सुरक्षा श्रेणी को Z श्रेणी से घटाकर Y श्रेणी कर दिया।

- The development was confirmed by officials of the West Bengal Police security wing as part of an “ongoing routine exercise” in reviewing the security cover of various prominent personalities in the State based on their threat assessments.

इस घटनाक्रम की पुष्टि पश्चिम बंगाल पुलिस के सुरक्षा प्रकोष्ठ के अधिकारियों ने की और बताया कि यह राज्य की विभिन्न प्रमुख हस्तियों की सुरक्षा व्यवस्था की खतरे के आकलन के आधार पर की जा रही “नियमित समीक्षा प्रक्रिया” का हिस्सा है।

- Under the new arrangement, he is expected to be provided with only three or four security personnel.

नई व्यवस्था के तहत उन्हें केवल तीन या चार सुरक्षा कर्मी उपलब्ध कराए जाने की संभावना है।

<b>GS Paper IV: Ethics</b>	<b>04 June 2026</b>
<b>TOPICS COVERED</b>	
<b>04J6</b>	<b>Dharma remains a mystery</b> धर्म एक रहस्य बना हुआ है



## FAITH

GS IV: Ethics

### Dharma remains a mystery

It is difficult to understand dharma, said Navalpakkam Vasudevachariar in a discourse. The meaning of dharma remains hidden. We can understand dharma only partly, not all of it. Just take the rule that we must speak the truth always – *satyam vada*. Is it always practical? Is it wise to always speak the truth? What if, because of our honesty, we hurt someone? In such circumstances, wouldn't a lie be better? Is it wrong to utter a lie to save a life? If a man is chased by someone who wants to murder him, and the villain asks you in which direction the man is running, would it be ethical to reveal the truth to the man with murderous intentions? Will it not lead to a man losing his life? In this case, it would be wrong to be truthful. Even Sita, who had such high ideals in life, had to lie. The occasion was the visit of Hanuman. Hanuman had met Sita with his reassuring message and had departed. The demonesses guarding Sita were curious about the monkey. They asked Sita whether she knew the monkey that had been there. Sita replied wisely that she didn't know who that monkey was.

In Ravana's rajya, demons assumed different forms and the monkey could be some demon, said Sita. If Sita had revealed Hanuman's identity, there might have been more trouble for her. Besides, what purpose would be served by being open about Hanuman's identity? When a truth serves no purpose, but a lie can protect us, isn't it better to conceal truth? So even in the matter of just one command relating to telling truth, there can be so many deviations. There can be deviations from other rules too, and these deviations too might not be *adharmic*. That is why dharma remains a mystery, and is not easily understood.

- In such circumstances, wouldn't a **lie** be better?  
ऐसी परिस्थितियों में क्या झूठ बेहतर नहीं होगा?
- Is it wrong to utter a **lie** to save a life?  
क्या किसी का जीवन बचाने के लिए झूठ बोलना गलत है?
- If a man is chased by someone who wants to murder him, and the villain asks you in which direction the man is running, would it be ethical to reveal the **truth** to the man with murderous intentions?  
यदि किसी व्यक्ति का पीछा कोई हत्यारा कर रहा हो और वह आपसे पूछे कि वह व्यक्ति किस दिशा में भागा है, तो क्या उस हत्यारे को **सत्य** बताना नैतिक होगा?
- Will it not lead to a man losing his life?  
क्या इससे एक व्यक्ति की जान नहीं चली जाएगी?
- In this case, it would be wrong to be truthful.  
इस स्थिति में सत्य बोलना गलत होगा।
- Even **Sita**, who had such high ideals in life, had to lie.  
यहाँ तक कि **सीता**, जिनके जीवन में इतने उच्च आदर्श थे, उन्हें भी झूठ बोलना पड़ा।
- The occasion was the visit of **Hanuman**.  
यह प्रसंग **हनुमान** के आगमन का था।
- **Hanuman** had met **Sita** with his reassuring message and had departed.  
**हनुमान** ने अपना सांत्वना देने वाला संदेश **सीता** को दिया और फिर वहाँ से चले गए।
- The demonesses guarding **Sita** were curious about the monkey.  
**सीता** की रखवाली कर रही राक्षसियाँ उस वानर के बारे में जानने को उत्सुक थीं।
- They asked **Sita** whether she knew the monkey that had been there.  
उन्होंने **सीता** से पूछा कि क्या वह उस वानर को जानती हैं जो वहाँ आया था।

### 04J6. Dharma remains a mystery

#### धर्म एक रहस्य बना हुआ है

• It is difficult to understand **dharma**, said **Navalpakkam Vasudevachariar** in a discourse.  
एक प्रवचन में **नावलपक्कम वासुदेवाचारियार** ने कहा कि **धर्म** को समझना कठिन है।

• The meaning of **dharma** remains hidden.  
**धर्म** का अर्थ अब भी छिपा हुआ है।

• We can understand **dharma** only partly, not all of it.  
हम **धर्म** को केवल आंशिक रूप से समझ सकते हैं, पूरी तरह नहीं।

• Just take the rule that we must speak the **truth** always — **satyam vada**.  
केवल इस नियम को ही लें कि हमें सदैव **सत्य** बोलना चाहिए —

**सत्यम् वद।**

• Is it always practical?

क्या यह हमेशा व्यावहारिक है?

• Is it wise to always speak the **truth**?

क्या हमेशा **सत्य** बोलना बुद्धिमानी है?

• What if, because of our honesty, we hurt someone?

यदि हमारी ईमानदारी के कारण किसी को कष्ट पहुँच जाए तो क्या होगा?



- **Sita** replied wisely that she didn't know who that monkey was.  
सीता ने बुद्धिमान्नी से उत्तर दिया कि वह नहीं जानती कि वह वानर कौन था।
- In **Ravana's rajya**, demons assumed different forms and the monkey could be some demon, said **Sita**.  
सीता ने कहा कि रावण के राज्य में राक्षस विभिन्न रूप धारण करते हैं और वह वानर भी कोई राक्षस हो सकता है।
- If **Sita** had revealed **Hanuman's** identity, there might have been more trouble for her.  
यदि सीता ने हनुमान की पहचान बता दी होती, तो उनके लिए और अधिक परेशानी उत्पन्न हो सकती थी।
- Besides, what purpose would be served by being open about **Hanuman's** identity?  
इसके अतिरिक्त, हनुमान की पहचान उजागर करने से क्या उद्देश्य पूरा होता?
- When a **truth** serves no purpose, but a **lie** can protect us, isn't it better to conceal truth?  
जब सत्य किसी उद्देश्य की पूर्ति न करे, लेकिन झूठ हमारी रक्षा कर सकता हो, तो क्या सत्य को छिपाना बेहतर नहीं है?
- So even in the matter of just one command relating to telling **truth**, there can be so many deviations.  
इस प्रकार केवल सत्य बोलने के एक आदेश के विषय में भी अनेक अपवाद हो सकते हैं।
- There can be deviations from other rules too, and these deviations too might not be **adharmic**.  
अन्य नियमों में भी अपवाद हो सकते हैं, और वे अपवाद भी आवश्यक नहीं कि अधार्मिक हों।
- That is why **dharma** remains a mystery, and is not easily understood.  
इसीलिए धर्म एक रहस्य बना हुआ है और उसे आसानी से समझा नहीं जा सकता।

PATRIOTIC IAS