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# PATRIOTIC IAS

## THE HINDU NEWSPAPER

### DAILY CURRENT AFFAIRS

02 JUNE 2025

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02\_06\_2025 DAILY CURRENT AFFAIRS

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

1. Simhastha Kumbh Mela to begin in October 2026  
सिंहस्थ कुंभ मेला अक्टूबर 2026 में शुरू होगा
2. Telangana forms backwardness index with caste survey data  
तेलंगाना ने जाति सर्वेक्षण डेटा से पिछड़ेपन सूचकांक तैयार किया

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**3. Seventeen Women Look Up to the Sky**

सत्रह महिलाएं आकाश की ओर देखती हैं

**4. Diseases haunt A.P.'s verdant hills**

आंध्र प्रदेश की हरी-भरी पहाड़ियों में बीमारियों का कहर

**5. Daily Quiz – May 30 Edition**

30 मई की दैनिक क्विज़ – प्रश्नोत्तरी

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GS Paper I: A&C

## Simhastha Kumbh Mela to begin in October 2026

Nashik-Trimbakeshwar Simhastha Kumbh Mela will begin from October 31, 2026, with a traditional flag hoisting at Trimbakeshwar and Ramkund in Nashik. The date was announced at a meeting that Maharashtra Chief Minister Devendra Fadnavis had on Sunday with the chiefs of 13 main *akhadas* (monastic orders) and representatives of the Purohit Sangh. On July 29, 2027, 'Nagar Pradakshina' (a procession carrying the idol around the city) will be held at Nashik. The first 'Amrut Snan' (ritual dip) in the Godavari river will happen on August 2, 2027, the second one will take place on August 31.

यह तिथि महाराष्ट्र के मुख्यमंत्री देवेंद्र फडणवीस द्वारा रविवार को बुलाई गई बैठक में घोषित की गई, जिसमें 13 प्रमुख अखाड़ों के प्रमुखों और पुरोहित संघ के प्रतिनिधियों ने भाग लिया।

- As per the schedule, a grand 'Nagar Pradakshina' — a religious procession that carries the deity's idol around the city — will be held in **Nashik** on **July 29, 2027**.

**Simhastha Kumbh Mela to begin in October 2026**

**सिंहस्थ कुंभ मेला अक्टूबर 2026 में शुरू होगा**

The **Nashik-Trimbakeshwar Simhastha Kumbh Mela** will begin from **October 31, 2026**, with a traditional flag hoisting ceremony at **Trimbakeshwar and Ramkund in Nashik**.

नासिक-त्र्यंबकेश्वर सिंहस्थ कुंभ मेला की शुरुआत 31 अक्टूबर 2026 को त्र्यंबकेश्वर और रामकुंड में पारंपरिक ध्वजारोहण समारोह के साथ होगी।

- This date was officially announced during a meeting held on **Sunday** by **Maharashtra Chief Minister Devendra Fadnavis**, which included the chiefs of **13 main akhadas** (monastic orders) and representatives of the **Purohit Sangh**.



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निर्धारित कार्यक्रम के अनुसार, एक भव्य 'नगर प्रदक्षिणा' — जिसमें भगवान की मूर्ति को नगरभर में घुमाया जाता है — **29 जुलाई 2027** को नासिक में आयोजित की जाएगी।

- The first 'Amrut Snan', a sacred ritual dip in the **Godavari river**, will take place on **August 2, 2027**.

पहला 'अमृत स्नान', जो गोदावरी नदी में एक पवित्र धार्मिक स्नान होता है, **2 अगस्त 2027** को होगा।

- The second 'Amrut Snan' is scheduled for **August 31, 2027**, marking another key date in the religious festivities.

दूसरा 'अमृत स्नान' **31 अगस्त 2027** को निर्धारित है, जो धार्मिक आयोजन का एक और महत्वपूर्ण दिन होगा।

### Nashik-Trimbakeshwar

#### नासिक-त्र्यंबकेश्वर

- Nashik is a city in **Maharashtra**, located on the **banks of the Godavari River**.

- नासिक महाराष्ट्र का एक शहर है, जो गोदावरी नदी के तट पर स्थित है।

- **Trimbakeshwar** is a town near Nashik and is famous for the **Trimbakeshwar Jyotirlinga**, one of the **twelve Jyotirlingas** of Lord Shiva.

- त्र्यंबकेश्वर, नासिक के पास स्थित एक नगर है, जो त्र्यंबकेश्वर ज्योतिर्लिंग के लिए प्रसिद्ध है, जो भगवान शिव के बारह ज्योतिर्लिंगों में से एक है।

- The source of the **Godavari River** is located near **Trimbakeshwar**.

- गोदावरी नदी का उद्गम स्थल, त्र्यंबकेश्वर के पास स्थित है।

- Nashik is one of the **four locations** where the **Kumbh Mela** is held.

- नासिक उन चार स्थानों में से एक है, जहाँ कुंभ मेला आयोजित होता है।

### Simhastha Kumbh Mela

#### सिंहस्थ कुंभ मेला

- The **Kumbh Mela** is a major **Hindu religious gathering** held at **four locations** — **Prayagraj, Haridwar, Ujjain, and Nashik**.

- कुंभ मेला, एक प्रमुख हिंदू धार्मिक आयोजन है जो प्रयागराज, हरिद्वार, उज्जैन और नासिक में आयोजित होता है।

- In Nashik, it is called **Simhastha Kumbh Mela**, and is held every **12 years**, when **Jupiter** enters the **Leo (Simha)** zodiac sign.

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- नासिक में इसे सिंहस्थ कुंभ मेला कहा जाता है और यह हर 12 वर्षों में तब आयोजित होता है जब गुरु ग्रह सिंह (Leo) राशि में प्रवेश करता है।
- The main bathing ghats are Ramkund in Nashik and Kushavarta Tirtha in Trimbakeshwar.
- प्रमुख स्नान घाट, नासिक में रामकुंड और त्र्यंबकेश्वर में कुशावर्त तीर्थ हैं।
- It attracts millions of pilgrims, saints (sadhus), and tourists from across India and the world.
- यह मेला लाखों तीर्थयात्रियों, साधुओं और पर्यटकों को भारत और दुनिया भर से आकर्षित करता है।
- The last Simhastha Kumbh Mela in Nashik was held in 2015, and the next is expected in 2027.
- नासिक में अंतिम सिंहस्थ कुंभ मेला 2015 में आयोजित हुआ था और अगला 2027 में होने की संभावना है।

## Telangana forms backwardness index with caste survey data

GS Paper I: Society

R. Ravikanth Reddy  
HYDERABAD

In what could be a paradigm shift in India's approach to social justice, the Telangana government, acting on the caste survey conducted in the State, is gauging the backwardness of castes on a scale of "zero to 126", independent of their population size.

An 11-member Expert Working Group, headed by the former Supreme Court judge Justice B. Sudarshan Reddy, set up by the government to analyse and interpret the data from the survey, has come up with a

new concept – composite backwardness index – to quantify scientifically the backwardness of castes.

The foundation of the survey report is the huge data compiled from over 3.5 crore residents of Telangana who responded to 74 questions covering aspects ranging from education and income to housing, landholding, and experiences of discrimination.

"This is a data revolution," says Praveen Chakravarthy, member-convener of the committee. Earlier, it was assumed that larger the population of a social



Praveen Chakravarthy

group, more backward it was, he said. "But now, focus is on how backward is a caste in real, measurable terms," he told *The Hindu* in an interaction.

Mr. Chakravarthy, who is one of the architects of the index, says it is a first-of-its-kind metric designed and used in the world to objectively evaluate social and economic disparities. Evaluating Telangana's most exhaustive caste-related survey in India's history was a big task, he said, recalling that the landmark Mandal Commission survey conducted in the 1980s covered only 50 lakh people with 11 questions.

To identify true indicators of backwardness, the committee performed statistical significance tests across the responses shor-

tlisting 42 indicators across nine categories, including education, living conditions, land ownership, income, access to technology, and social discrimination.

Respondents answered questions such as "Do you face discrimination in temples?"; "Do your children attend English-medium schools?"; "Do you own a vehicle, smartphone, or live in a pucca house?"; and "Do you borrow from moneylenders?", each of which fed into a scoring model.

Mr. Chakravarthy said each caste was ranked on a

scale from 0 to 126 points, with the higher the score, the greater the level of backwardness. The data was analysed through quartile distribution, placing every caste into one of four buckets based on their aggregate scores. The report, expected to be submitted to Chief Minister A. Revanth Reddy, in two weeks, will provide rankings for all the 245 surveyed castes.

Mr. Chakravarthy feels the government should release the data in an aggregated form for public use, while protecting individual privacy.

## Telangana forms backwardness index with caste survey data तेलंगाना ने जाति सर्वेक्षण डेटा से पिछड़ेपन सूचकांक तैयार किया

The Telangana government, based on its caste survey, is now assessing caste backwardness on a scale of **zero to 126**, instead of



using population size as a criterion.

तेलंगाना सरकार अब अपने जाति सर्वेक्षण के आधार पर पिछड़ेपन को 0 से 126 के स्केल पर माप रही है, न कि जनसंख्या के आकार के आधार पर।

- An **11-member Expert Working Group**, headed by former Supreme Court judge **Justice B. Sudarshan Reddy**, was set up to analyse and interpret the survey data.  
पूर्व सुप्रीम कोर्ट जज जस्टिस बी. सुदर्शन रेड्डी की अध्यक्षता में एक 11-सदस्यीय विशेषज्ञ कार्य समूह को सर्वेक्षण डेटा का विश्लेषण और व्याख्या करने के लिए गठित किया गया।
- This group introduced a new method called **composite backwardness index** to scientifically quantify caste backwardness.  
इस समूह ने जातिगत पिछड़ेपन को वैज्ञानिक रूप से मापने के लिए **कंपोजिट बैकवर्डनेस इंडेक्स** नामक एक नई विधि पेश की।
- The survey covered **over 3.5 crore residents of Telangana**, who responded to **74 questions** related to **education, income, housing, landholding, and discrimination**.  
इस सर्वेक्षण में तेलंगाना के 3.5 करोड़ से अधिक निवासियों ने भाग लिया, जिन्होंने शिक्षा, आय, आवास, ज़मीन, और भेदभाव से संबंधित 74 सवालों का उत्तर दिया।
- According to **Praveen Chakravarthy**, the **committee's member-convener**, this represents a **data revolution**.  
प्रवीण चक्रवर्ती, जो कि समिति के संयोजक सदस्य हैं, के अनुसार यह एक डेटा क्रांति है।
- He said that earlier it was assumed that a **larger population meant more backwardness**, but now the emphasis is on **measurable backwardness**.  
उन्होंने कहा कि पहले यह माना जाता था कि ज्यादा जनसंख्या वाले समूह अधिक पिछड़े हैं, लेकिन अब जोर मापने योग्य पिछड़ेपन पर है।
- Mr. Chakravarthy described the index as a **first-of-its-kind metric** globally to objectively measure **social and economic disparities**.  
श्री चक्रवर्ती ने इस सूचकांक को सामाजिक और आर्थिक असमानताओं को वस्तुनिष्ठ रूप से मापने वाला दुनिया का पहला ऐसा सूचकांक बताया।
- He compared it to the **Mandal Commission survey** of the 1980s, which had just **11 questions** and covered only **50 lakh people**.  
उन्होंने इसकी तुलना 1980 के दशक की मंडल आयोग सर्वेक्षण से की, जिसमें सिर्फ 11 प्रश्न थे और 50 लाख लोगों को शामिल किया गया था।
- The committee used **statistical significance tests** to shortlist **42 indicators** across **nine categories**, including **education, living conditions, land ownership, income, technology access, and discrimination**.  
समिति ने सांख्यिकीय महत्व परीक्षणों का उपयोग करके 9 श्रेणियों में फैले 42 संकेतकों को चुना, जिनमें शिक्षा, जीवन की स्थिति, ज़मीन का स्वामित्व, आय, तकनीकी पहुँच और भेदभाव शामिल थे।
- Respondents were asked questions such as:  
प्रतिभागियों से निम्नलिखित प्रकार के सवाल पूछे गए:



- – “Do you face discrimination in temples?”
  - “क्या आपको मंदिरों में भेदभाव का सामना करना पड़ता है?”
- – “Do your children attend English-medium schools?”
  - “क्या आपके बच्चे अंग्रेज़ी माध्यम के स्कूलों में पढ़ते हैं?”
- – “Do you own a vehicle, smartphone, or live in a pucca house?”
  - “क्या आपके पास वाहन, स्मार्टफोन है या आप पक्के मकान में रहते हैं?”
- – “Do you borrow from moneylenders?”
  - “क्या आप साहूकारों से उधार लेते हैं?”
- Each response contributed to the **scoring model** used to rank castes.  
हर उत्तर को **स्कोरिंग मॉडल** में शामिल किया गया जिससे जातियों की रैंकिंग तय की गई।
- Each caste was then given a score between **0 and 126**, with **higher scores indicating greater backwardness**.  
हर जाति को **0 से 126** के बीच एक स्कोर दिया गया, जिसमें **उच्च स्कोर अधिक पिछड़ेपन** को दर्शाता है।
- These scores were analysed using **quartile distribution**, **dividing castes into four categories based on their overall scores**.  
इन स्कोरों का विश्लेषण **चतुर्थांश वितरण** के ज़रिए किया गया, जिसमें जातियों को उनके कुल स्कोर के आधार पर **चार वर्गों** में बांटा गया।
- The final report is expected to be submitted to **Chief Minister A. Revanth Reddy** within **two weeks**, covering **rankings of all 245 surveyed castes**.  
**245 जातियों की रैंकिंग** वाली अंतिम रिपोर्ट को **मुख्यमंत्री ए. रेवंत रेड्डी** को दो हफ्तों में सौंपे जाने की उम्मीद है।
- Mr. Chakravarthy suggested that the **aggregated data** should be released to the **public**, while ensuring **individual privacy** is protected.  
श्री चक्रवर्ती ने सुझाव दिया कि **संक्षिप्त समेकित डेटा** को **जनता के लिए जारी** किया जाना चाहिए, जबकि **व्यक्तिगत गोपनीयता** की रक्षा की जानी चाहिए।



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**17 women  
look up to  
the sky**

Super Dimona motorised  
gliders fly past after the  
148th convocation  
ceremony held at National  
Defence Academy,  
EMMANUAL YOGINI

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Seventeen women cadets graduated from Pune's National Defence Academy on May 30, making them the first batch to participate in a joint training institution for the Indian Army, Navy, and Air Force. **Snehal Mutha** reports on the experiences of the cadets who took on concerns around physical training and a system that was forced to adapt itself to the needs and aspirations of women

ES Paper I: Society

**I**n May 29, Jasmine, 21, is dressed in her white uniform and stands with her parents on the steps of the National Defence Academy's (NDA) Sudan Block. Behind her, flanking the entrance, are gold tri-service emblems with the words 'Service before self'. In front of her is the rest of her life, which she will likely spend serving India in one of the three defence forces. Hugging her mother, she says with joy, "I did it."

Jasmine is one of 17 – the first batch of women to graduate from the military's joint-services training institute in Khadakwala, Maharashtra. It took 148 courses, 70 years, and a Supreme Court verdict for policies to change, so women could enter the academy. She graduates with over 300 men, who will all join as officers in the Army, Air Force, and Navy.

In September 2021, Jasmine came across a notification on the government's Union Public Service Commission (UPSC) website inviting women to appear for the entrance exams. The Supreme Court had ruled in favour of this just the month before, based on a petition. The petition had argued that the NDA had been violating women's right to equality and the right to practise the profession of their choice.

This decision came after three decades of women serving in the armed forces through Short-Service Commission, where they could serve for 10 years, with an extension. However, women have always been a part of the medical, educational, legal and other services of the military in non-combatant roles. Women fighter pilots have been inducted into the Air Force since 2016. However, the Army still does not permit women in the fighting arms like the infantry.

With the entrance exam on November 14, there were just 70 days to prepare. The first batch of 19 female cadets joined the NDA in August 2022. Two withdrew from the course for personal reasons, according to NDA officials. Since 2022, when women were inducted into the NDA, there have been 126 cadets across courses.

Jasmine comes from Charkhi Dabri town in Haryana, where her parents, Jeevan Ram, 42, and Sarita, 42, are farmers. "We might be from a village, but our thinking has never been regressive," says Sarita, her eyes filled with pride. There are two others from the same town, all from non-military backgrounds.

Of the 17, nine cadets will join the Army, three will join the Navy, and five will join the Air Force. Jasmine will join the Navy and go to Hyderabad for further training. Most of the women are from Uttar Pradesh, Haryana, Punjab, and Uttarakhand. Currently, the defence forces have 11,414 women officers, as per officials.

**Stepping up**

They stand on the steps of Sudan Block, and photos are taken, frozen as a memory and a part of history. The block is located at the heart of the NDA's 7,000-acre campus, set in the foothills of the Western Ghats, 17 km from Pune city. It is a



We had to climb a hill bearing weight... Everyone was exhausted...

My course-mate Srishri Singh started singing and we kept climbing. The next thing we knew, the hill was conquered

**SRIHRI SANGWAN**  
NDA graduate

central point for ceremonial functions, where parents, instructors, cadets, and officers meet and greet after the convocation, held on May 29.

As the Super Dimona motorised gliders fly overhead, saluting the 148th course cadets for graduating, Srishri Chaudhary, 21, and Harsimran Kaur, 21, stand in Sudan Block's garden looking at the sky. Both were preparing for the Joint Entrance Examination (JEE), a national-level exam for engineering programmes, before turning to the NDA.

"I had 40 days to prepare and took online classes for initial coaching," says Srishri, who hails from Muzaffarnagar, Uttar Pradesh, and will be serving in the Navy. Harsimran, whose father is in the Army, had plans to enter via the Short-Service Commission route, until NDA opened its doors to women. Ishita Sangwan, 21, who is also from Charkhi Dabri, was deciding between the JEE and the Civil Services.

The cadets – both male and female – go through a gruelling selection process, starting with a written examination conducted by the UPSC, followed by an interview process under the Services Selection Board. There are medical tests to be cleared and for those aspiring to join the Air Force, a Computerized Pilot Selection System (CPSS) test must be taken.

"You have to have clear priorities before joining the NDA," says Ishita, who is joining the Air Force. Overwhelmed, she hugs her instructor, re-

peatedly saying thank you with tears rolling down her face. Ishita remembers a phone call from her father, who is a school principal. "He told me the NDA was open for women candidates. We discussed it and I decided to take the exams," she added.

After three years of rigorous physical training and academic courses, cadets will go for further training for at least a year. Army cadets will go to Dehradun's Indian Military Academy (IMA), Air Force cadets will be trained at the Air Force Academy (AFA) at Dundigal, and naval cadets at Indian Naval Academy (INA) at Ezhimala, Kerala.

**Game of endurance**

Physical training is one of the major elements of the NDA's three-year course and is often considered its toughest component. Daily training includes obstacle courses, route marches, swimming, horse riding, rope climbing, sprinting, field tactics, weapon handling, and more.

During the petition hearing in the Supreme Court, the Centre had opposed the enrolment of women over biological differences. Now, the NDA spokespeople say all training was the same, but physical standards were adjusted to address biological differences. The women say it was a matter of mental strength and endurance. Ishita remembers her toughest moments: "We had to climb a hill bearing weight as a part of Camp Rovers. Everyone was exhausted because it extends for five days. We hadn't slept properly for three or four nights and I felt like giving up. But my course-mate Srishri Singh started singing, and we kept climbing. The next thing we knew the hill was conquered."

One of the toughest challenges was the 40 km Josh Camp, conducted at the end of the sixth term, say the women. All 18 squadrons competed

with each other and performed various tasks, including map reading and running day and night. Ishita's squadron, which included male counterparts, started at 9:30 p.m. and finished at 11:30 the next morning.

NDA Commandant Vice-Admiral Gurcharan Singh called the inclusion of women a "progressive process". Initially, the female cadets' living arrangements were separate as that is the way it is done at the Officers Training Academy in Chennai, which has been open to women since 1992, with Short-Service Commission. This was changed in the NDA to build camaraderie among members of a squadron. "We ensured they played, lived, trained, together, to achieve gender neutrality," says Gurcharan, adding that barriers need to come down from the start, so there is no difference in times of conflict or battle.

**Mothers and others**

On May 30, Geeta Dhaka, 45, watched with pride as her daughter Shanan Dhaka, 21, participated in the passing out parade. The women and men are dressed alike, their hair cropped short, and from a distance, there is no difference. Shanan's sister is currently training at the Armed Forces Medical College (AFMC).

"Today, I feel really proud as my daughter has endured the toughest defence course. Since childhood, my daughter had wanted to join the defence, like my husband. This shift from a *fauji* wife to a *fauji* maa is emotional and painful too," she says, understanding that in case of a war-like situation, her husband and daughter may both be called up. The Dhaka family is from Chandigarh, but currently resides in Rohtak.

Division Cadet Captain (DCC) Shriti Daksh, who was put into a leadership position, follows in her father's footsteps. Wing Commander Yogesh Daksh (ret.) is proud: "Shriti scored 97% in Class 10 and 99% in Class 12. She has always been good academically, and seeing her top the arts course makes me a happy father."

Her mother was worried about the intense physical training, but says, "It goes to show that if you put your mind to something, it will pay off." Their other daughter is serving in the Air Force as a Flying Officer, and the family hails from Haryana, but is currently based in Noida.

Academy Cadet Captain Udayveer Singh Negi of the 'G' Squadron, who commanded this Spring term parade (two batches pass out each year from NDA), waited as Shriti celebrated with others informally in the parking area, between cars. Amid the loud cheers of *beris dote hi ruke, beris ject gayi* (Daughter keep going, daughter won), Udayveer says, "Most of the time we forget that they are women. We trained with each other, shoulder to shoulder. In a few tasks like map reading and field tactics, they outdid us. We felt equal, and gender was never a restriction."

"The cadets' parents would visit their children at the end of each term of six months, meeting each other too. After the parade, mothers hugged each other and clicked selfies. Srishri's mother, Priyanka, says, "Our children have become friends, but we parents also share bonds. We became each other's support systems through the course."

Cadet Harsimran Kaur from Punjab points out: "Our bond has grown beyond that during these three years. These friendships are for life."

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NDA's first batch of female cadets pose for a photograph after the 148th convocation ceremony held at the defence academy. EMANUAL YOGINI

## Seventeen Women Look Up to the Sky

सत्रह महिलाएं आकाश की ओर देखती हैं

**Seventeen women cadets graduated from Pune's National Defence Academy (NDA) on May 30, becoming the first batch to be part of a joint training institution for the Indian Army, Navy, and Air Force.**

30 मई को पुणे की राष्ट्रीय रक्षा अकादमी (NDA) से सत्रह महिला कैडेट्स ने स्नातक की डिग्री प्राप्त की, जो भारतीय सेना, नौसेना और वायु सेना के संयुक्त प्रशिक्षण संस्थान का हिस्सा बनने वाला पहला बैच है।

- The cadets overcame doubts around **physical training** and pushed the system to adapt to the **needs and aspirations of women**.

इन कैडेट्स ने शारीरिक प्रशिक्षण को लेकर संदेहों पर विजय पाई और सिस्टम को महिलाओं की जरूरतों और आकांक्षाओं के अनुसार ढलने के लिए मजबूर किया।



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- On **May 29, Jasmine**, aged **21**, stood in her **white uniform** with her parents at NDA's **Sudan Block**, which features **gold tri-service emblems** and the motto '**Service before self**'.  
29 मई को 21 वर्षीय जैस्मिन ने NDA के सूडान ब्लॉक की सीढ़ियों पर सफेद यूनिफॉर्म में अपने माता-पिता के साथ खड़ी होकर 'सेवा स्वयं से पहले' के आदर्श वाक्य और त्रि-सेवा प्रतीकों के बीच यह पल जिया।
- Jasmine is among the **first batch** of **17 women** who graduated with over **300 men** from NDA.  
जैस्मिन उन सत्रह महिलाओं में शामिल हैं, जिन्होंने 300 से अधिक पुरुषों के साथ NDA से स्नातक की डिग्री प्राप्त की।
- It took **70 years**, **148 courses**, and a **Supreme Court verdict** to enable women to enter NDA.  
महिलाओं के लिए NDA के दरवाजे खुलवाने में 70 साल, 148 कोर्स, और सुप्रीम कोर्ट का एक निर्णय लगा।

## Supreme Court Opens the Doors

### सुप्रीम कोर्ट ने दरवाजे खोले

- In **September 2021**, a notification on the **UPSC** website invited women to apply for NDA after a **Supreme Court ruling** in August.  
सितंबर 2021 में UPSC वेबसाइट पर एक अधिसूचना जारी हुई, जिसमें सुप्रीम कोर्ट के अगस्त निर्णय के बाद महिलाओं को NDA की परीक्षा में शामिल होने के लिए आमंत्रित किया गया।
- The petition argued that NDA's earlier policy **violated women's right to equality and the right to choose a profession**.  
याचिका में यह तर्क दिया गया था कि NDA की पुरानी नीति महिलाओं के समानता के अधिकार और पसंद के पेशे के अधिकार का उल्लंघन करती है।

## Women's Evolving Role in the Forces

### सशस्त्र बलों में महिलाओं की बदलती भूमिका

- For decades, women served in the armed forces through the **Short Service Commission**, limited to **10 years** with possible extensions.  
दशकों तक महिलाएं शॉर्ट सर्विस कमीशन के माध्यम से सशस्त्र बलों में शामिल होती रहीं, जिसकी सेवा अवधि 10 साल तक सीमित होती थी।
- Women were previously inducted in **non-combatant roles** like **medical**, **legal**, and **educational** services.  
पहले महिलाएं चिकित्सा, कानूनी और शैक्षणिक सेवाओं जैसी गैर-युद्ध भूमिकाओं में शामिल होती थीं।
- **Women fighter pilots** have been allowed in the **Air Force since 2016**, but the **Army** still restricts women from **fighting arms** like infantry.

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2016 से वायुसेना में महिला फाइटर पायलटों को शामिल किया गया है, लेकिन सेना में अभी भी महिलाओं को युद्धक टुकड़ियों जैसे इन्फैंट्री में अनुमति नहीं है।

## The First Batch of Women Cadets

### महिला कैडेट्स का पहला बैच

- The entrance exam was held on **November 14**, leaving just **70 days** for preparation. प्रवेश परीक्षा 14 नवंबर को हुई, जिसमें तैयारी के लिए केवल 70 दिन मिले।
- In **August 2022**, **19 women** joined NDA; **2 later withdrew** for personal reasons. अगस्त 2022 में 19 महिलाएं NDA में शामिल हुईं; बाद में 2 ने व्यक्तिगत कारणों से नाम वापस ले लिया।
- Since 2022, a total of **126 women cadets** have been admitted across different batches. 2022 से अब तक, विभिन्न बैचों में कुल 126 महिला कैडेट्स को भर्ती किया गया है।

## Cadet Backgrounds and Selection Process

### कैडेट्स की पृष्ठभूमि और चयन प्रक्रिया

- Jasmine hails from **Charkhi Dadri**, Haryana. Her parents, **Jeevan Ram** and **Sarita**, both **42**, are **farmers**. जैस्मिन हरियाणा के चरखी दादरी से हैं। उनके माता-पिता जीवन राम और सरिता, दोनों 42 वर्ष, किसान हैं।
- Many cadets, including Jasmine, come from **non-military backgrounds**. जैस्मिन समेत कई कैडेट्स गैर-सैन्य पृष्ठभूमि से हैं।
- **Among the 17, 9 will join the Army, 3 the Navy, and 5 the Air Force.** 17 कैडेट्स में से 9 सेना, 3 नौसेना और 5 वायुसेना में शामिल होंगी।
- Jasmine will join the **Navy** and go to **Hyderabad** for further training. जैस्मिन नौसेना में शामिल होंगी और हैदराबाद में आगे का प्रशिक्षण लेंगी।
- Most of the women are from **Uttar Pradesh, Haryana, Punjab, and Uttarakhand**. अधिकांश महिलाएं उत्तर प्रदेश, हरियाणा, पंजाब और उत्तराखंड से हैं।
- As per officials, there are currently **11,414 women officers** in the Indian armed forces. अधिकारियों के अनुसार, वर्तमान में भारतीय सशस्त्र बलों में 11,414 महिला अधिकारी कार्यरत हैं।

## The Graduation Ceremony and Aspirations

### दीक्षांत समारोह और आकांक्षाएं

- The **Sudan Block**, located in NDA's **7,000-acre** campus near **Pune**, is the central location for ceremonial functions.

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पुणे के पास स्थित NDA के 7,000 एकड़ के परिसर में सूडान ब्लॉक एक केंद्रीय स्थान है, जहाँ औपचारिक कार्यक्रम आयोजित होते हैं।

- After the convocation on **May 29**, families, instructors, and officers gathered for photographs.  
29 मई को दीक्षांत समारोह के बाद परिवार, प्रशिक्षक और अधिकारी तस्वीरों के लिए एकत्रित हुए।
- As **motorised gliders** flew overhead, cadets looked up in pride and excitement.  
जैसे ही मोटर चालित ग्लाइडर ऊपर से गुज़रे, कैडेट्स ने गर्व और उत्साह से आकाश की ओर देखा।

## Stories of Srishti, Harsimran, and Ishita

### सृष्टि, हरसिमरन और इशिता की कहानियां

- **Srishti Chaudhary, 21**, from **Muzaffarnagar**, was preparing for **JEE** but switched to NDA with just **40 days** of online coaching.  
सृष्टि चौधरी, 21, मुज़फ़्फ़रनगर से हैं और पहले **JEE** की तैयारी कर रही थीं, लेकिन केवल **40 दिनों** की ऑनलाइन कोचिंग के साथ NDA के लिए बदल गईं।
- **Harsimran Kaur, 21**, whose father is in the Army, had planned to join via **Short Service Commission** until NDA allowed women.  
हरसिमरन कौर, 21, जिनके पिता सेना में हैं, ने पहले **शॉर्ट सर्विस कमीशन** के ज़रिए शामिल होने की योजना बनाई थी, लेकिन बाद में NDA ने महिलाओं को अनुमति दी।
- **Ishita Sangwan**, also from **Charkhi Dadri**, was torn between **JEE and Civil Services**, but chose NDA.  
इशिता सांगवान, जो चरखी दादरी से हैं, **JEE और सिविल सर्विसेज** के बीच सोच रही थीं, लेकिन NDA को चुना।

## The NDA Selection and Training Process

### NDA का चयन और प्रशिक्षण प्रक्रिया

- The **selection begins with a written UPSC exam**, followed by a **Services Selection Board (SSB) interview, medical tests**, and for Air Force, a **CPSS test**.  
चयन प्रक्रिया **UPSC की लिखित परीक्षा** से शुरू होती है, फिर **SSB इंटरव्यू, चिकित्सा परीक्षण**, और वायुसेना के लिए **CPSS टेस्ट** लिया जाता है।
- Ishita said one must have **clear priorities** before joining NDA.  
इशिता ने कहा कि NDA में शामिल होने से पहले **स्पष्ट प्राथमिकताएं** होना ज़रूरी है।
- Overcome with emotion, Ishita hugged her instructor, recalling how her **father, a school principal**, encouraged her to take the exam.  
भावनाओं से अभिभूत होकर इशिता ने अपने प्रशिक्षक को गले लगाया और याद किया कि कैसे उनके पिता, जो **स्कूल प्रिंसिपल** हैं, ने उन्हें परीक्षा देने के लिए प्रेरित किया।



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## Next Phase of Training

### प्रशिक्षण का अगला चरण

- After **three years** of academic and physical training, cadets now head to specialized academies for further training.  
तीन साल की अकादमिक और शारीरिक ट्रेनिंग के बाद, कैडेट्स अब विशेष अकादमियों में आगे के प्रशिक्षण के लिए जाएंगे।
- Army cadets will go to **Indian Military Academy (IMA), Dehradun**, Air Force cadets to **Air Force Academy (AFA), Dundigal**, and Navy cadets to **Indian Naval Academy (INA), Ezhimala, Kerala**.  
सेना के कैडेट्स देहरादून की भारतीय सैन्य अकादमी (IMA), वायुसेना के कैडेट्स डुंडीगल की वायुसेना अकादमी (AFA), और नौसेना के कैडेट्स केरल के एज़िमाला स्थित भारतीय नौसेना अकादमी (INA) में जाएंगे।

## Game of Endurance

### धैर्य की परीक्षा

- Physical training is one of the **major elements** of the NDA's **three-year course** and is often considered its **toughest component**.  
शारीरिक प्रशिक्षण एनडीए के **तीन साल के कोर्स** का एक **मुख्य तत्व** है और इसे अक्सर इसका **सबसे कठिन हिस्सा** माना जाता है।
- Daily training includes **obstacle courses, route marches, swimming, horse riding, rope climbing, sprinting, field tactics, weapon handling**, and more.  
दैनिक प्रशिक्षण में **बाधा दौड़, मार्चिंग, तैराकी, घुड़सवारी, रस्सी चढ़ाई, दौड़, मैदान की रणनीति, हथियार संचालन** आदि शामिल होते हैं।
- During the petition hearing in the **Supreme Court**, the **Centre had opposed** the enrolment of women over **biological differences**.  
**सुप्रीम कोर्ट** में याचिका की सुनवाई के दौरान, **केंद्र सरकार ने महिलाओं के प्रवेश का जैविक भिन्नताओं के आधार पर विरोध किया था।**
- Now, NDA spokespeople say **all training was the same**, but **physical standards** were adjusted to address **biological differences**.  
अब, एनडीए के प्रवक्ताओं का कहना है कि **सभी प्रशिक्षण समान** थे, लेकिन **जैविक अंतर** को ध्यान में रखते हुए **शारीरिक मानकों** में कुछ बदलाव किए गए।
- The women say it was a matter of **mental strength** and **endurance**.  
महिलाओं का कहना है कि यह **मानसिक ताकत और धैर्य** का मामला था।
- Ishita remembers her toughest moments: "We had to **climb a hill** bearing weight as a part of **Camp Rovers**... It extends for **five days**. We hadn't slept properly for **three or four nights**..."



ईशिता को अपने सबसे कठिन पल याद हैं: “हमें कैम्प रोवर्स के हिस्से के रूप में वज़न उठाकर पहाड़ी चढ़नी पड़ी... यह पाँच दिन तक चलता है। हमने तीन-चार रातों से ठीक से नींद नहीं ली थी...”

- Her coursemate **Srishti Singh** started singing to motivate them, and they eventually conquered the hill.

उनकी कोर्समेट **सृष्टि सिंह** ने गाना गाना शुरू किया और अंततः वे पहाड़ी पर चढ़ने में सफल रहीं।

- One of the **toughest challenges** was the **40 km Josh Camp**, conducted at the end of the **sixth term**.

**सबसे कठिन चुनौतियों** में से एक थी **40 किलोमीटर लंबा जोश कैम्प**, जिसे **छठे टर्म** के अंत में आयोजित किया गया।

- All **18 squadrons** competed in tasks like **map reading** and **running day and night**.

सभी **18 स्क्वाड्रन** ने **नक्शा पढ़ने** और **दिन-रात दौड़ने** जैसे कार्यों में प्रतिस्पर्धा की।

- Ishita's squadron, which included **male counterparts**, started at **9:30 p.m.** and finished at **11:30 a.m.** next morning.

ईशिता की स्क्वाड्रन, जिसमें **पुरुष कैडेट्स** भी शामिल थे, ने **रात 9:30 बजे** शुरू किया और अगले दिन **सुबह 11:30 बजे** समाप्त किया।

## Progressive Training System

### प्रगतिशील प्रशिक्षण प्रणाली

- NDA Commandant **Vice-Admiral Gurcharan Singh** called the inclusion of women a “**progressive process**”.

एनडीए कमांडेंट **वाइस एडमिरल गुरचरण सिंह** ने महिलाओं को शामिल करने को एक “**प्रगतिशील प्रक्रिया**” बताया।

- Initially, the female cadets' **living arrangements were separate**, as done at the **Officers Training Academy (OTA), Chennai**, since **1992**.

शुरू में महिला कैडेट्स की **रहने की व्यवस्था अलग** थी, जैसा कि **चेन्नई के ऑफिसर्स ट्रेनिंग अकादमी (OTA)** में **1992** से किया जाता रहा है।

- This was changed in NDA to build **camaraderie among squadron members**.

एनडीए में इसे बदल दिया गया ताकि **स्क्वाड्रन के सदस्यों के बीच दोस्ती और सहयोग** को बढ़ाया जा सके।

- “We ensured they **played, lived, trained together**, to achieve **gender neutrality**,” said Gurcharan Singh.

गुरचरण सिंह ने कहा, “हमने सुनिश्चित किया कि वे **साथ खेलें, रहें और ट्रेनिंग लें**, ताकि **लैंगिक समानता** हासिल हो सके।”

- Barriers need to come down from the start, so there is **no difference in times of conflict or battle**.

शुरू से ही बाधाएं खत्म होनी चाहिए ताकि **संघर्ष या युद्ध के समय** कोई अंतर न रह जाए।



## Mothers and Others

### माएं और बाकी परिजन

- On **May 30, Geeta Dhaka (45)** watched proudly as her daughter **Shanan Dhaka (21)** participated in the **passing out parade**.  
**30 मई को गीता ढाका (45)** ने गर्व के साथ अपनी बेटी **शनन ढाका (21)** को **पासिंग आउट परेड** में भाग लेते हुए देखा।
- Men and women were **dressed alike**, with **cropped hair**, showing **no difference from a distance**.  
पुरुष और महिलाएं एक जैसे कपड़ों में और छोटे बालों के साथ दिखे, जिससे दूरी से कोई अंतर नहीं दिखता।
- Shanan's sister is currently training at **AFMC (Armed Forces Medical College)**.  
शनन की बहन वर्तमान में **सशस्त्र बल मेडिकल कॉलेज (AFMC)** में प्रशिक्षण ले रही है।
- "My children always wanted to join the **defence**, like my husband," says Geeta.  
गीता कहती हैं, "मेरे बच्चे हमेशा से अपने पिता की तरह सेना में शामिल होना चाहते थे।"
- "This shift from a **fauji wife** to a **fauji maa** is emotional and painful too," she adds.  
वह कहती हैं, "एक फौजी पत्नी से फौजी मां बनने का यह बदलाव **भावनात्मक और कठिन** भी है।"
- The Dhaka family is from **Chandigarh**, but currently lives in **Rohtak**.  
ढाका परिवार **चंडीगढ़** से है, लेकिन वर्तमान में **रोहतक** में रहता है।
- **Division Cadet Captain (DCC) Shriti Daksh** was put into a **leadership position**, following her father's footsteps.  
**डिवीजन कैडेट कैप्टन (DCC) श्रुति दक्ष** को नेतृत्व की जिम्मेदारी दी गई, जो उन्होंने अपने पिता के नकशे-कदम पर चलते हुए निभाई।
- Her father, **Wing Commander Yogesh Daksh (retd.)**, says, "She scored **97% in Class 10** and **99% in Class 12**."  
उनके पिता **विंग कमांडर योगेश दक्ष (सेवानिवृत्त)** कहते हैं, "उसने **कक्षा 10 में 97%** और **कक्षा 12 में 99%** अंक प्राप्त किए।"
- "Seeing her top the **arts course** makes me a happy father," he adds.  
वे कहते हैं, "उसे **आर्ट्स कोर्स** में टॉप करते देखना मेरे लिए गर्व की बात है।"
- Her mother was initially **worried about the physical training**, but now believes in the power of determination.  
उनकी मां शुरू में **शारीरिक प्रशिक्षण को लेकर चिंतित** थीं, लेकिन अब मानती हैं कि **दृढ़ निश्चय सब कुछ संभव बना सकता है**।
- Their **other daughter** is serving in the **Air Force** as a **Flying Officer**.  
उनकी **दूसरी बेटी वायुसेना में फ्लाइटिंग ऑफिसर** के रूप में कार्यरत है।
- The family hails from **Haryana**, but is currently based in **Noida**.  
परिवार **हरियाणा** से है लेकिन फिलहाल **नोएडा** में रह रहा है।
- **Academy Cadet Captain Udayveer Singh Negi**, who commanded the **Spring term parade**, waited as Shriti celebrated with her friends.



अकादमी कैडेट कैप्टन उदयवीर सिंह नेगी, जिन्होंने वसंत सत्र की परेड का नेतृत्व किया, श्रुति को उसके दोस्तों के साथ जश्न मनाते हुए देख रहे थे।

- Amid loud cheers of “**Betiya daudti hi rahein, betiya jeet gayi**” (Daughters keep running, daughters have won), Udayveer said,  
“बेटियां दौड़ती ही रहें, बेटियां जीत गईं” के नारों के बीच उदयवीर ने कहा,
- “Most of the time, we forgot that they are women... we trained **shoulder to shoulder**.”  
“अधिकतर समय हम भूल जाते थे कि वे महिलाएं हैं... हम कंधे से कंधा मिलाकर प्रशिक्षण लेते थे।”
- “In some tasks like **map reading** and **field tactics**, they even **outdid us**,” he added.  
उन्होंने आगे कहा, “नक्शा पढ़ने और मैदान रणनीति जैसे कुछ कार्यों में तो वे हमें पीछे छोड़ देती थीं।”

## Family Support and Bonds

### पारिवारिक सहयोग और संबंध

- Parents visited their cadet children at the end of each **six-month term**, also bonding with each other.  
अभिभावक हर छह महीने के टर्म के अंत में अपने बच्चों से मिलने आते थे और आपस में भी संबंध बनते थे।
- After the parade, **mothers hugged** and **clicked selfies** together.  
परेड के बाद, माओं ने एक-दूसरे को गले लगाया और सेल्फी लीं।
- **Srishti's mother, Priyanka**, said, “Our children became friends, and so did we.”  
सृष्टि की मां प्रियंका ने कहा, “हमारे बच्चे तो दोस्त बन ही गए, हम माता-पिता भी आपस में मित्र बन गए।”
- Cadet **Harsimran Kaur from Punjab** says, “Our bond has grown beyond friendship. These friendships are for life.”  
पंजाब की कैडेट हरसिमरन कौर कहती हैं, “हमारा संबंध मित्रता से आगे बढ़ चुका है। ये दोस्तियाँ जीवन भर के लिए हैं।”



**Water woes:** File picture of a tribal woman fetching drinking water at Buriga hamlet of Ananthagiri mandal in ASR district. Somila Appalaraju, a ward member in Rompelli panchayat, says Buriga and China Konela hamlets of the mandal reported a few cases of malaria. V. RAJU

PATRIOTIC



# Diseases haunt A.P.'s verdant hills

As monsoon clouds gather over the picturesque hills of ASR district, tribespeople cross their fingers, for in their hamlets, where even paracetamol is hard to come by, seasonal illnesses can kill. **B Madhu Gopal** finds out how systemic problems leave a community at the mercy of ailments long conquered in other parts of the State

ES Paper I, Society + Geography

**A**s tribal couple Pangi Rama Rao and Pangi Sita began getting ready for work in the morning of May 19, they touched the forehead of their seven-year-old daughter Pangi Estheru. The girl, the fourth of their six daughters, was still running a high temperature, though almost a week had elapsed since the fever first appeared, going on and then returning.

Rama Rao and Sita usually take their young daughters with them, so they could play or do menial tasks as they toiled in the fields downhill at Jajulabandha of Koyyuru mandal in Alluri Sitharama Raju (ASR) district. That day, however, Sita decided stay back to tend to her ailing daughter while Rama Rao left for work.

But as the day progressed, Estheru's condition deteriorated and by evening, she was gone. When news of the child's death spread, five more cases of children suffering from fever in the hamlet came to light. Fortunately, all five have since recovered from the illness.

However, this was not the first time that fever and seasonal diseases had ravaged tribal hamlets on the hill slopes of the picturesque ASR district. In this corner, where even paracetamol is said to be in short supply, a fever can kill.

## Decay beneath a paradise

A walk along the winding paths and lanes between houses lays bare the life of the tribespeople in this hamlet. Most houses, thatched or tiled, have a cattle shed sitting cheek by jowl, with its pools of urine and dung slush providing a perfect breeding ground for disease-spreading mosquitoes.

According to CPI(M) district secretariat member K. Govinda Rao, who has been organising protests demanding better facilities for the tribespeople, though water taps had been provided at the hilltop village, which borders Anakapalli district, no water tank was constructed, and the sole water pump remains defunct. This forces the villagers to fetch water from the 'gedda' (stream) about half a kilometre away. According to the villagers, this water often causes diseases.

According to sources in the Health Department, the first five months of this year witnessed a significant spike in malaria cases compared to the corresponding period last year. A total of 1,122 cases of malaria were detected in 11 of the 22 mandals in ASR district between January and May (till May 28). The total number of malaria cases for the corresponding period in 2024 is 791.

## What officials say

Officials from the Medical and Health Department says there is no malaria case in Jajulabandha. "Auxiliary Nurse Midwife (ANM) N. Satyavathi screened 28 people for malaria, including Pangi Estheru, on May 15. All tested 'negative' in the test results obtained on May 17," says C. Jamal



An ANM screened 28 people for malaria, including Pangi Estheru, on May 15. All tested 'negative' in the results obtained on May 17.

**C. JAMAL**  
BASHA  
DM&HO, ASR  
district

Basha, DM&HO of ASR district. The officials attribute Estheru's death to complications from a home remedy for stomach ache and vomiting.

However, Marri Kameswara Rao, a relative of Rama Rao and also a resident of Jajulabandha, says no camp was held in their village before the child's death. "The health camp in our village was held on the day following Estheru's death. Two of her sisters are still suffering from fever; they have been tested, and the reports are awaited," he adds.

## Left to their own devices

Carrying patients in a 'doli' is still a common sight in the Agency area as many hamlets are yet to be connected by road. As for Jajulabandha, the nearest Primary Health Centre (PHC) is at Dornuru, around 30 km away. But since the hamlet lacks a road, patients need to be carried in doli for 2 km till Pitrigedda, till which a road has been laid.

According to Kameswara Rao, when Estheru condition worsened, her mother called a doctor, who, however, could not reach the hamlet as it lacked a road. She also could not take her daughter to the PHC alone because at least two persons are needed to carry the doli, he added.

Somila Appalaraju, a ward member in Rompelli panchayat, says Buriga and China Konela hamlets of Anantagiri mandal have a few cases of malaria. "Though there is no proper road to our

hamlets from Kasipatnam side, a few weeks ago, a road was laid towards Vanija village of Mentada mandal in Vizianagaram district on the other side of the hill. The patients visited labs in Vizianagaram, and they have tested positive for malaria," adds Somila Appalaraju.

"Malaria tests are done in medical camps held at Buriga and China Konela, but the health staff don't have any medicines! What use are the camps if they don't have any medicine?" he asks.

## Easy target for diseases

According to sources, a lack of awareness about diseases; low consumption of nutritious food; dearth of motorable roads; dependence on streams and springs for drinking water; and a shortage of medicines and staff at health centres leave tribespeople particularly vulnerable to diseases.

"There are indeed fever cases in tribal areas, but fewer this year so far. Roads have been laid to many tribal hamlets, including the interior hill-top ones, but not to all," says N. Satyanarayana, general secretary of Girijana Vikasa

Samsitha, an organisation working for the welfare of tribespeople in Chintapalli, G.K. Veedhi, Gudem, G. Madugula and Koyyuru mandals. "During the sowing of paddy, tribal farmers are frequently exposed to rains. When they catch fever, they fail to get treated in time, believing it will subside on its own."

**N. SATYANARAYANA**  
general secretary of Girijana Vikasa Samsitha

More frequently exposed to rains and catch fever. However, they fail to get treated in time, believing the fever will subside on its own. This leads to a spread of viral fevers," he adds.

"Moreover, a new trend is emerging in tribal areas: an increase in lifestyle diseases such as diabetes, hypertension and heart problems. This is probably owing to urbanisation, changes in lifestyle and dietary habits of the tribespeople. Sickle cell anaemia cases are also rampant in the areas," Satyanarayana adds.

T. Kameswara Rao, general secretary of Praja

Aranya Vedika, which has been working in tribal areas for the past several years, highlighted the vacancies of 'health volunteers' and ANMs in over 200 'Sachivalayams' in various mandals across ASR district.

"Fever cases are being reported in the border areas of Anantagiri, Paderu and Chintapalli mandals. However, there is a shortage of common medicines such as paracetamol. Also, Artesunate, an anti-malarial drug, seems to be in short supply; it is being given only when malaria cases are confirmed," says Kameswara Rao.

"Seasonal weather changes almost always result in fever cases in tribal areas. During our survey at a tribal school in Araku, we also found that girls were anaemic owing to poor nutrition. The government is spending a just ₹48 on each tribal student, towards the cost of breakfast, lunch and dinner," he says.

## The rains are here

Meanwhile, the Southwest monsoon reached A.P. on May 28, over two weeks in advance. The monsoon brings with it seasonal fevers such as malaria, viral fevers and water-borne diseases, and their impact is severe in the Agency areas.

Residents of tribal hamlets allege that the health department wakes up only after an outbreak and do little in the form of preventive measures. Stagnation of rainwater, contamination of drinking water sources like streams and a lack of piped water remain major problems yet to be effectively tackled in tribal areas. According to sources, larvicide spraying has just begun in some mandals of the Agency, but this could be hampered by the onset of rains.

There is a district hospital at Paderu, two area hospitals (one each at Araku and Munchingput) and a Community Health Centre at Chintapalli in the II Agency mandals of erstwhile Visakhapatnam district. "The area hospital at Araku gets 300 OP cases on an average a day. A majority of the patients come from Anantagiri, Araku, Paderu and Koyyuru mandals. Most of the cases pertain to viral fever," says Kameswara Rao.

"The incidence of viral fevers is expected to increase further from June. Anti-larval operations and spraying should be expedited, and monitoring of the operations is necessary to check the spread of seasonal diseases," he adds.



File picture of a woman being carried on a doli at a tribal village in ASR district; (above) tribal farmers harvesting turmeric near Araku in Alluri Sitharama Raju district. The community still practices Podu cultivation. K.R. DEEPAK

## Diseases haunt A.P.'s verdant hills

### आंध्र प्रदेश की हरी-भरी पहाड़ियों में बीमारियों का कहर

As monsoon clouds gather over the picturesque hills of **Alluri Sitharama Raju (ASR) district**, tribespeople worry because in their hamlets, where even paracetamol is hard to find, seasonal illnesses can prove fatal.

जैसे ही अल्लूरी सीताराम राजू (एएसआर) जिले की खूबसूरत पहाड़ियों पर मानसून के बादल छाते हैं, आदिवासी लोग चिंतित हो जाते हैं क्योंकि उनके गांवों में, जहाँ पैरासिटामोल जैसी दवाएं भी मुश्किल से मिलती हैं, मौसमी बीमारियाँ जानलेवा साबित हो सकती हैं।



## A child lost to fever

### बुखार के कारण एक बच्ची की मौत

- On the morning of **May 19**, tribal couple **Pangi Rama Rao** and **Pangi Sita** found that their **7-year-old daughter Pangi Estheru** was still running a **high fever**, which had persisted for nearly a week.  
19 मई की सुबह, आदिवासी दंपति पंगी रामाराव और पंगी सीता ने देखा कि उनकी 7 साल की बेटी पंगी एस्तेरु को अब भी तेज बुखार था, जो लगभग एक सप्ताह से बना हुआ था।
- While Rama Rao left for work, Sita stayed back to care for Estheru. By evening, **Estheru passed away**.  
रामाराव काम पर निकल गए, लेकिन सीता अपनी बेटी की देखभाल के लिए रुक गईं। शाम तक, एस्तेरु की मौत हो गई।
- After her death, **five more children** were found to be suffering from **fever** in the hamlet, but all of them have **recovered**.  
उसकी मौत के बाद गांव में पांच और बच्चों में बुखार के लक्षण पाए गए, लेकिन वे सभी ठीक हो गए।

## Decay beneath a paradise

### स्वर्ग सी सुंदरता के नीचे छिपा सड़ांध

- Most houses in the hamlet have **cattle sheds** adjacent to them, with **urine and dung slush**, creating a **breeding ground for mosquitoes**.  
गांव के अधिकांश घरों में पशुओं के बाड़े घर से सटे होते हैं, जहां मूत्र और गोबर का गंदा पानी जमा रहता है, जो मच्छरों के प्रजनन स्थल बनाता है।
- Though **water taps** have been provided, there is **no water tank**, and the **only pump is defunct**. Villagers must fetch water from a **stream (gedda)** half a kilometre away, which often causes **diseases**.  
हालांकि गांव में पानी के नल लगाए गए हैं, लेकिन कोई जल टंकी नहीं है और एकमात्र पंप खराब पड़ा है। ग्रामीणों को लगभग आधा किलोमीटर दूर एक नाले (गड्डा) से पानी लाना पड़ता है, जिससे अक्सर बीमारियाँ फैलती हैं।

## Spike in malaria cases

### मलेरिया के मामलों में बढ़ोतरी

- Between **January and May 28**, **1,122 malaria cases** were detected in **11 out of 22 mandals** of ASR district.  
जनवरी से 28 मई के बीच, एएसआर जिले के 22 में से 11 मंडलों में 1,122 मलेरिया के मामले दर्ज किए गए।
- In the **same period in 2024**, the number was **791**.  
2024 की इसी अवधि में यह संख्या 791 थी।



## What officials say

### अधिकारियों की प्रतिक्रिया

- Officials claim **no malaria case** was found in **Jajulabandha**. On **May 15, ANM N. Satyavathi** screened **28 people**, including **Estheru**, and all tested **negative**.  
अधिकारियों का कहना है कि **जाजुलाबंधा** में **कोई मलेरिया का मामला** नहीं मिला। **15 मई** को **एनएएम एन. सत्यवती** ने **28 लोगों** की जांच की, जिनमें **एस्तेरु** भी शामिल थी, और सभी की रिपोर्ट **निगेटिव** आई।
- Officials say **Estheru died** due to **complications from a home remedy**.  
अधिकारियों के अनुसार, **एस्तेरु की मौत घरेलू उपचार से हुई जटिलताओं** के कारण हुई।
- But **Marri Kameswara Rao**, a resident of the same hamlet, says **no health camp** was held before her death.  
लेकिन **मर्री कामेश्वर राव**, जो उसी गांव के निवासी हैं, का कहना है कि उसकी मौत से पहले कोई **स्वास्थ्य शिविर** आयोजित नहीं किया गया था।
- He also states that **two sisters** of **Estheru** are still suffering from **fever**, and their **test results are awaited**.  
उन्होंने यह भी कहा कि **एस्तेरु की दो बहनें** अब भी **बुखार** से पीड़ित हैं और उनकी **जांच रिपोर्ट का इंतजार** है।

## No road, no access

### न सड़क, न सुविधा

- **Carrying patients in doli** is common, as many hamlets are **not connected by road**.  
मरीजों को **डोली में ले जाना** आम बात है क्योंकि कई गांवों में **सड़क संपर्क नहीं** है।
- In **Jajulabandha**, the nearest **PHC (Primary Health Centre)** is **30 km away** at **Downuru**.  
**जाजुलाबंधा** में सबसे नज़दीकी **प्राथमिक स्वास्थ्य केंद्र (PHC)** **30 किलोमीटर दूर डाउनुरु** में है।
- The hamlet has **no road**, so patients must be carried **2 km by doli** to reach the nearest road at **Pitrigedda**.  
गांव में **सड़क नहीं** है, इसलिए मरीजों को **2 किलोमीटर तक डोली में ले जाना पड़ता** है ताकि वे **पिट्रिगेड्डा** तक पहुँच सकें, जहाँ से सड़क शुरू होती है।
- When **Estheru's condition worsened**, a doctor was **unable to reach the hamlet**, and her mother couldn't carry her **alone in doli**.  
जब **एस्तेरु की हालत बिगड़ी**, तब एक डॉक्टर **गांव नहीं पहुँच सका**, और उसकी मां उसे **अकेले डोली में नहीं ले जा सकी**।

## Reports from other hamlets

### अन्य गांवों से रिपोर्ट



- **Buriga and China Konela hamlets in Anantagiri mandal have malaria cases**, confirms ward member **Somila Appalaraju**.

अनंतगिरी मंडल के बुरीगा और चिन्ना कोनेला गांवों में मलेरिया के मामले हैं, यह वार्ड सदस्य सोमिला अप्पलाराजू ने पुष्टि की।

- Though there is **no proper road**, villagers have recently travelled to **Vizianagaram labs** via a newly laid road on the **other side of the hill**, and tested **positive for malaria**.

हालाँकि ठीक से सड़क नहीं है, फिर भी हाल ही में ग्रामीण पहाड़ी के दूसरी ओर विजयनगरम के लैब में जाकर मलेरिया पॉज़िटिव पाए गए हैं।

- Health camps are being held in **Buriga and China Konela**, but the **medical staff have no medicines**.

बुरीगा और चिन्ना कोनेला में स्वास्थ्य शिविर लगाए जा रहे हैं, लेकिन स्वास्थ्य कर्मचारियों के पास दवाएं नहीं हैं।

- Somila Appalaraju asks, **“What is the use of camps if there are no medicines?”**

सोमिला अप्पलाराजू पूछते हैं, “जब दवाएं ही नहीं हैं, तो शिविरों का क्या फायदा?”

- According to sources, **a lack of awareness about diseases, low consumption of nutritious food, poor road connectivity, dependence on streams and springs for drinking water, and a shortage of medicines and staff at health centres** make tribal people especially **vulnerable to diseases**.

सूत्रों के अनुसार, बीमारियों के प्रति जागरूकता की कमी, पोषणयुक्त भोजन की कम खपत, सड़क संपर्क की कमी, पीने के पानी के लिए झरनों और नालों पर निर्भरता, और स्वास्थ्य केंद्रों में दवाओं और स्टाफ की कमी के कारण आदिवासी लोग बीमारियों के प्रति विशेष रूप से संवेदनशील हो जाते हैं।

- “There are indeed **fever cases** in tribal areas, but **fewer this year so far**. Roads have been laid to **many tribal hamlets**, including interior hilltop ones, but **not to all**,” says **N. Satyanarayana**, general secretary of **Girijana Vikasa Samstha**.

“आदिवासी क्षेत्रों में वास्तव में बुखार के मामले हैं, लेकिन इस वर्ष अब तक कम मामले सामने आए हैं।

कई आदिवासी बस्तियों तक, जिनमें पहाड़ी क्षेत्र भी शामिल हैं, सड़कें बनाई गई हैं, लेकिन सभी तक नहीं पहुँची हैं,” ऐसा कहते हैं एन. सत्यनारायण, जो गिरिजना विकास संस्था के महासचिव हैं।

- “During the **paddy sowing season**, tribal farmers are often exposed to **rains and catch fever**. However, they usually **do not seek treatment**, thinking it will subside on its own, which leads to a **spread of viral fevers**.”

“धान की बुवाई के समय, आदिवासी किसान अक्सर बारिश में भीगते हैं और उन्हें बुखार हो जाता है।

लेकिन वे आमतौर पर मानते हैं कि यह अपने आप ठीक हो जाएगा, इसलिए इलाज नहीं करवाते, जिससे वायरल बुखार फैलता है।”

- “A **new trend is emerging: an increase in lifestyle diseases like diabetes, hypertension, and heart problems**. This could be due to **urbanisation and changing lifestyle and diet**. **Sickle cell anaemia is also widespread**.”

“एक नया रुझान सामने आ रहा है: मधुमेह, उच्च रक्तचाप, और हृदय संबंधी समस्याओं जैसी



जीवनशैली संबंधी बीमारियों में वृद्धि। इसका कारण शहरीकरण और जीवनशैली तथा खानपान में बदलाव हो सकता है। सिकल सेल एनीमिया भी बहुत प्रचलित है।”

- T. Kameswara Rao, general secretary of **Praja Arogya Vedika**, which works in tribal areas, pointed out **vacancies of health volunteers and ANMs** in over **200 Sachivalayams** across **ASR district**.

टी. कमेश्वर राव, जो प्रजा आरोग्य वेदिका के महासचिव हैं और आदिवासी क्षेत्रों में काम करते हैं, उन्होंने बताया कि एएसआर जिले के 200 से अधिक सचिवालयों में स्वास्थ्य स्वयंसेवकों और एएनएम की भारी कमी है।

- “**Fever cases** are being reported from **Anantagiri, Paderu, and Chintapalli** mandals, but there is a **shortage of basic medicines like paracetamol**. The **anti-malarial drug Artesunate** is being given **only when malaria is confirmed**.”

“अनंतगिरी, पडेरू और चिंतापल्ली मंडलों से बुखार के मामले सामने आ रहे हैं, लेकिन पैरासिटामोल जैसी आम दवाओं की कमी है। मलेरिया की पुष्टि होने पर ही आर्टेसुनेट नामक मलेरिया-रोधी दवा दी जा रही है।”

- “**Seasonal changes** often cause **fever** in tribal areas. In a **tribal school survey at Araku**, it was found that **girls were anaemic** due to **poor nutrition**. Government spends just **₹48 per student** for **breakfast, lunch, and dinner**.”

“मौसमी बदलावों के कारण आदिवासी क्षेत्रों में अक्सर बुखार फैलता है। अरकू के एक आदिवासी स्कूल सर्वेक्षण में पाया गया कि लड़कियों में खून की कमी (एनीमिया) है, जिसका कारण पोषण की कमी है। सरकार नाश्ता, दोपहर का भोजन और रात का खाना मिलाकर प्रति छात्र केवल ₹48 खर्च करती है।”

## The Rains Are Here

### बारिश आ चुकी है

- The **Southwest monsoon** arrived in **Andhra Pradesh** on **May 28**, over **two weeks early**. It brings **malaria, viral fevers, and water-borne diseases**, which have **severe effects** in **Agency areas**.

दक्षिण-पश्चिम मानसून ने 28 मई को आंध्र प्रदेश में दो सप्ताह पहले दस्तक दी। इसके साथ मलेरिया, वायरल बुखार, और जल जनित रोग आते हैं, जिनका एजेंसी क्षेत्रों में गंभीर प्रभाव होता है।

- Residents say the **health department** acts only **after outbreaks**, and does **little for prevention**. **Stagnant rainwater, contaminated drinking sources, and lack of piped water** remain **unsolved issues**.

निवासियों का कहना है कि स्वास्थ्य विभाग केवल बीमारी फैलने के बाद सक्रिय होता है और रोकथाम के लिए बहुत कम करता है। बारिश का ठहरा पानी, गंदे पीने के स्रोत, और नलजल की कमी अभी भी असुलझे मुद्दे हैं।

- **Larvicide spraying** has just started in some **Agency mandals**, but may get **disrupted** by the rain.

एजेंसी मंडलों के कुछ क्षेत्रों में अभी लार्वा नाशक छिड़काव शुरू हुआ है, लेकिन बारिश के कारण बाधित हो सकता है।



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- There is a **district hospital at Paderu**, two **area hospitals at Araku and Munchingput**, and a **Community Health Centre at Chintapalli** for the 11 Agency mandals of erstwhile Visakhapatnam district.

पूर्वी विशाखापट्टनम जिले के 11 एजेंसी मंडलों के लिए पडेरू में एक जिला अस्पताल, अरकू और मुनचिंगपुट में दो क्षेत्रीय अस्पताल, और चिंतापल्ली में एक सामुदायिक स्वास्थ्य केंद्र है।

- The **Araku area hospital** gets an average of **300 OPD cases daily**, mainly from **Ananthagiri, Araku, Paderu, and Koyyuru**. Most are **viral fever** cases.  
अरकू क्षेत्रीय अस्पताल में रोज़ाना औसतन **300 ओपीडी मरीज** आते हैं, जो मुख्य रूप से **अनंतगिरी, अरकू, पडेरू, और कोय्यूरू** से आते हैं। इनमें से अधिकांश **वायरल बुखार** के मामले होते हैं।
- **Viral fevers** are expected to **increase in June**. **Anti-larval spraying and monitoring** should be **speeded up to control seasonal diseases**.  
वायरल बुखार के जून में बढ़ने की संभावना है। मौसमी बीमारियों पर नियंत्रण के लिए लार्वा रोधी छिड़काव और निगरानी को तेज़ किया जाना चाहिए।

### Rampa Rebellion (1922–1924)

### रंपा विद्रोह (1922–1924)

Alluri Sitharama Raju:

Feature	Details
Born	4 July 1897, Pandrangi village, Visakhapatnam district, Andhra Pradesh
Died	7 May 1924 (captured and killed by British at age 27)
Movement	Rampa Rebellion / Manyam Rebellion (1922–1924)
Region of Activity	Agency areas of Visakhapatnam and East Godavari (Eastern Ghats)
Known For	Guerrilla warfare against the British
Nickname	"Manyam Veerudu" (Hero of the Jungle)

- Triggered by British laws restricting the free movement of tribal people and banning the traditional practice of podu (shifting) cultivation.  
ब्रिटिश कानूनों द्वारा जनजातीय लोगों की स्वतंत्र आवाजाही पर प्रतिबंध और पारंपरिक पोडु (झूम) कृषि पर रोक लगाने के कारण यह विद्रोह शुरू हुआ।
- Alluri Sitharama Raju mobilized tribal communities against these unjust policies.  
अल्लूरी सीताराम राजू ने इन अन्यायपूर्ण नीतियों के खिलाफ जनजातीय समुदायों को संगठित किया।
- He raided British police stations, seized weapons, and used guerrilla tactics to fight colonial forces.  
उन्होंने ब्रिटिश पुलिस स्टेशनों पर छापे मारे, हथियारों को जब्त किया और गुरिल्ला रणनीति अपनाकर औपनिवेशिक बलों से मुकाबला किया।
- His slogan: "Death is ours and freedom is yours."  
उनका नारा था: "मृत्यु हमारी है और स्वतंत्रता तुम्हारी।"



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## Malaria

### मलेरिया

- **Malaria is a mosquito-borne infectious disease caused by Plasmodium parasites**, transmitted through the bite of infected **female Anopheles mosquitoes**.
- मलेरिया एक मच्छर जनित संक्रामक रोग है जो प्लाज्मोडियम परजीवियों के कारण होता है, और यह संक्रमित मादा एनोफिलीज मच्छर के काटने से फैलता है।
- There are **five Plasmodium species** that cause malaria in humans – **P. falciparum, P. vivax, P. ovale, P. malariae, and P. knowlesi**.
- मनुष्यों में मलेरिया पाँच प्रकार के प्लाज्मोडियम परजीवियों से होता है - **P. falciparum, P. vivax, P. ovale, P. malariae और P. knowlesi**।
- **P. falciparum** is the **most dangerous** and responsible for most **malaria-related deaths**, especially in **Africa**.
- **P. falciparum** सबसे घातक है और अधिकांश मलेरिया जनित मौतों के लिए जिम्मेदार होता है, विशेषकर अफ्रीका में।
- Common symptoms include **fever, chills, headache, vomiting, and muscle pain**, typically appearing **10–15 days** after the mosquito bite.
- इसके सामान्य लक्षणों में बुखार, ठंड लगना, सिरदर्द, उल्टी और मांसपेशियों में दर्द शामिल हैं, जो मच्छर के काटने के 10–15 दिनों के बाद दिखाई देते हैं।
- **Severe malaria** can cause **organ failure, anemia, coma**, and even **death** if not treated promptly.
- गंभीर मलेरिया में अंग विफलता, एनीमिया, कोमा और समय पर इलाज न होने पर मृत्यु हो सकती है।
- Diagnosis is done via **microscopic examination** of blood or **rapid diagnostic tests (RDTs)**.
- मलेरिया का निदान रक्त की सूक्ष्म जांच या त्वरित नैदानिक परीक्षणों (RDTs) से किया जाता है।
- Treatment involves **antimalarial drugs** such as **chloroquine, artemisinin-based combination therapies (ACTs)**, depending on the parasite species and severity.
- इसका इलाज क्लोरोक्विन, आर्टेमिसिनिन-आधारित संयोजन उपचार (ACTs) जैसे मलेरिया रोधी दवाओं से किया जाता है, जो परजीवी की प्रजाति और गंभीरता पर निर्भर करता है।
- **Prevention** includes **insecticide-treated bed nets (ITNs), indoor residual spraying (IRS), and antimalarial prophylaxis**.

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• रोकथाम के उपायों में कीटनाशक लगे मच्छरदानी (ITNs), घर के अंदर कीटनाशक छिड़काव (IRS) और मलेरिया से बचाव की दवाएँ शामिल हैं।

• The **World Malaria Day** is observed on **25 April** every year to raise awareness and promote prevention efforts.

• **विश्व मलेरिया दिवस** हर वर्ष **25 अप्रैल** को मनाया जाता है, ताकि इसके प्रति जागरूकता और रोकथाम के प्रयासों को बढ़ावा दिया जा सके।

## Geography

**Questions and Answers to the May 30 edition of the daily quiz:** 1. The State where the south-west monsoon arrives first.

**Ans: Kerala**

2. This region has the highest average rainfall. **Ans: Mawsynram**

3. This mobile app, created to provide crop advisories to farmers based on weather information, is named after an epic poem.

**Ans: Meghdoot**

4. If 10 cm of rainfall is received over a small area at a station in one hour, this phenomenon is called \_\_. **Ans: Cloud burst**

5. This flow of air attains maximum strength in July and gives rise to a strong monsoon in peninsular India. **Ans: Somali jet**

6. X was established in 1875 in Calcutta. **Ans: India Meteorological Department**

Visual: Name this astronomer. **Ans: Edmond Halley**

**Early Birds:** Dodo Jayaditya| Ahad Chachiyal| Atul Kumar Shukla| Atul Kumar| Erfanally Oosmany

वह है सोमाली जेट।

- The **India Meteorological Department (IMD)** was established in **1875** in **Calcutta**. **भारत मौसम विज्ञान विभाग (IMD)** की स्थापना **1875** में **कलकत्ता** में हुई थी।

## Daily Quiz – May 30 Edition

### 30 मई की दैनिक क्विज़ – प्रश्नोत्तरी

The State where the south-west monsoon arrives first is Kerala.

दक्षिण-पश्चिम मानसून सबसे पहले जिस राज्य में पहुंचता है वह है केरल।

- The region with the **highest average rainfall is Mawsynram**.

सबसे अधिक औसत वर्षा वाला क्षेत्र है **मौसिनराम**।

- The **mobile app** created to provide **crop advisories** to farmers based on **weather information** is called **Meghdoot**.

किसानों को **मौसम जानकारी** के आधार पर **फसल सलाह** देने के लिए बनाई गई **मोबाइल ऐप** का नाम है **मेघदूत**।

- If **10 cm of rainfall** is received in **one hour** over a **small area**, this phenomenon is called a **cloud burst**.

यदि किसी **छोटे क्षेत्र** में **एक घंटे** में **10 सेंटीमीटर वर्षा** होती है, तो इसे **क्लाउड बर्स्ट (मेघ फटना)** कहा जाता है।

- The **flow of air** that attains **maximum strength in July** and contributes to a **strong monsoon** in **peninsular India** is the **Somali Jet**.

**जुलाई** में जो **वायु प्रवाह** अपनी **अधिकतम तीव्रता** प्राप्त करता है और **प्रायद्वीपीय भारत** में **मजबूत मानसून** लाता है,

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- The astronomer shown in the image is **Edmond Halley**.  
खगोलशास्त्री एडमंड हेली।

## Somali Jet सोमाली जेट

- The **Somali Jet**, also known as the **Findlater Jet**, is a **low-level southwesterly jet stream**.
- सोमाली जेट, जिसे फाइंडलेटर जेट के नाम से भी जाना जाता है, एक निचले स्तर की दक्षिण-पश्चिमी जेट स्ट्रीम है।
- It **originates over the western Indian Ocean near the Somali coast** and moves **towards the Indian subcontinent**.
- यह पश्चिमी हिंद महासागर में सोमाली तट के पास उत्पन्न होती है और भारतीय उपमहाद्वीप की ओर बढ़ती है।
- It forms during the **South-West Monsoon season (June–September)**.
- यह दक्षिण-पश्चिम मानसून के मौसम (जून–सितंबर) के दौरान बनती है।
- The Somali Jet plays a **critical role in the onset and intensity of the South-West Monsoon in India**.
- सोमाली जेट, भारत में दक्षिण-पश्चिम मानसून की शुरुआत और उसकी तीव्रता में महत्वपूर्ण भूमिका निभाती है।

### Role in Indian South-West Monsoon

भारत में दक्षिण-पश्चिम मानसून में भूमिका

#### Moisture Transport

The Somali Jet transports **huge amounts of moisture** from the **warm waters of the Indian Ocean** to the **Indian subcontinent**.  
सोमाली जेट, हिंद महासागर के गर्म जल से भारतीय उपमहाद्वीप की ओर विशाल मात्रा में नमी लाती है।

नमी का परिवहन

#### Monsoon Onset

Its **strengthening in early June** is one of the **key indicators** for the **monsoon onset over the Kerala coast**.

मानसून की शुरुआत

जून की शुरुआत में इसका मजबूत होना, केरल तट पर मानसून की शुरुआत के मुख्य संकेतकों में से एक है।

#### Pressure Gradient

It is driven by the **pressure gradient** between the **Mascarene High** (in the southern Indian Ocean) and the **low-pressure area over northwest India**.  
यह मास्केरीन उच्च दबाव प्रणाली (दक्षिणी हिंद महासागर में) और उत्तर-पश्चिम भारत के निम्न-दाब क्षेत्र के बीच की दाब प्रवणता के कारण संचालित होती है।

दाब प्रवणता

#### Rainfall Distribution

A **stronger Somali Jet** leads to **more rainfall** over the **Indian peninsula and central India**; a **weaker jet** may cause **drought-like conditions**.  
मजबूत सोमाली जेट से भारतीय प्रायद्वीप और मध्य भारत में अधिक वर्षा होती है; जबकि कमजोर जेट से सूखे जैसी स्थिति उत्पन्न हो सकती है।

वर्षा वितरण



**Ocean  
Upwelling**

महासागरीय अपवेलिंग

Its interaction with the **Somali coast** causes **upwelling of cold water**, which influences the **Indian Ocean Dipole (IOD)**, another factor affecting the monsoon.

सोमाली तट के साथ इसकी अंतःक्रिया से ठंडे जल का अपवेलिंग होता है, जो हिंद महासागर द्विध्रुव (IOD) को प्रभावित करता है, जो मानसून को प्रभावित करने वाला एक अन्य कारक है।

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

**1. Steps will be taken to bring education back to State List: DMK**

शिक्षा को पुनः राज्य सूची में लाने के लिए कदम उठाए जाएंगे: डीएमके

**2. EC revises voter list for June 19 bypolls after nearly two decades**

लगभग दो दशकों बाद 19 जून उपचुनाव के लिए निर्वाचन आयोग ने मतदाता सूची में संशोधन किया

**3. Mexicans Elect Their Judges Under Shadow of Organised Crime**

संगठित अपराध की छाया में मेक्सिको में जजों का चुनाव

**4. Iran Vows Retaliation if Europeans 'Exploit' UN Nuclear Report**

यदि यूरोपीय देश संयुक्त राष्ट्र परमाणु रिपोर्ट का 'दुरुपयोग' करते हैं तो ईरान बदला लेने की चेतावनी देता है



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## Steps will be taken to bring education back to State List: DMK

GS Paper II: Center State

Relations

MADURAI

Comprehensive measures would be taken to bring education back to the State List, the DMK said in a resolution taken at its general council meeting held in Madurai on Sunday.

The BJP-led Union government, by putting education on the Concurrent List, took it for granted, making several changes to restructure the educational system, the resolution said.

Further, by disrespecting the State Assembly, which had passed a resolution to exempt Tamil Nadu from NEET and by undermining the State's role in the appointment of Vice-Chancellors to Universities as per the guidelines of the University Grants Commission, the Union government had rejected the role of the State in every decision, the resolution further charged. As education pertains to the welfare of the State, measures would be taken more seriously to bring it back to the State List, the DMK said in the resolution.

During the meeting, the party condemned Vice President Jagdeep Dhank

### Party's general council meeting cites issues around NEET, V-C appointments as triggers

har for stating that the Supreme Court's ruling on the time limit for the President and Governors to act on Bills passed by State legislatures was a "judicial overreach".

Another resolution opposed the BJP government's "disrespectful attitude" towards the Supreme Court's rulings, which set a time frame for the President to decide on a Bill. In a special resolution, Chief Minister M.K. Stalin said that 30% of the voters should be members of the DMK by the next Assembly election.

Within the next two months, all the party members, starting from district-level functionaries to branch-level functionaries, should have achieved the targets earmarked for them, he said.

At the meeting, an announcement was made to create two new party wings – for persons with disabilities and academicians.

## Steps will be taken to bring education back to State List: DMK

### शिक्षा को पुनः राज्य सूची में लाने के लिए कदम

### उठाए जाएंगे: डीएमके

Comprehensive measures would be taken to bring education back to the **State List**, the DMK said in a resolution passed at its general council meeting held in Madurai on Sunday.

डीएमके ने अपने रविवार को मदुरै में हुए सामान्य परिषद की बैठक में पारित प्रस्ताव में कहा कि शिक्षा को राज्य सूची में वापस लाने के लिए व्यापक कदम उठाए जाएंगे।

• The BJP-led Union government, by placing **education on the Concurrent List**, had assumed full control and made several changes to **restructure the educational system**, the resolution stated.

प्रस्ताव में कहा गया कि बीजेपी नेतृत्व वाली केंद्र सरकार ने शिक्षा को समवर्ती सूची में रखकर इसे अपना अधिकार मान लिया और शिक्षा प्रणाली में कई बदलाव कर दिए।

• It further alleged that the Union government **disrespected the State Assembly**, which had passed a resolution to **exempt Tamil Nadu from NEET**, and undermined the State's role in the **appointment of Vice-Chancellors** as per **UGC guidelines**.

प्रस्ताव में आगे आरोप लगाया गया कि केंद्र सरकार ने तमिलनाडु को नीट से छूट देने वाले विधानसभा प्रस्ताव का अनादर किया, और यूजीसी दिशानिर्देशों के अनुसार कुलपतियों की नियुक्ति में राज्य की भूमिका को नजरअंदाज कर दिया।

• The DMK asserted that as **education pertains to the welfare of the State**, serious steps would now be taken to bring it back under **State control**.

डीएमके ने कहा कि चूंकि शिक्षा राज्य के कल्याण से संबंधित है, इसलिए अब इसे फिर से राज्य नियंत्रण में लाने के लिए गंभीर प्रयास किए जाएंगे।

• During the meeting, the party **condemned Vice President Jagdeep Dhankhar** for calling the **Supreme Court's ruling on the time limit for action on State Bills** as an **example of "judicial overreach"**.

बैठक में पार्टी ने उपराष्ट्रपति जगदीप धनखड़ द्वारा राज्य विधानसभाओं के विधेयकों पर राष्ट्रपति और

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राज्यपाल के निर्णय की समयसीमा पर सुप्रीम कोर्ट के फैसले को “न्यायिक अतिक्रमण” कहने के लिए उनकी निंदा की।

- Another resolution opposed the **BJP government's disrespectful attitude** towards **Supreme Court rulings**, especially those related to **timely decisions by the President on State Bills**.

एक अन्य प्रस्ताव में सुप्रीम कोर्ट के फैसलों के प्रति बीजेपी सरकार के अनादरपूर्ण रवैये का विरोध किया गया, खासकर वे निर्णय जो राष्ट्रपति द्वारा राज्य विधेयकों पर समय पर निर्णय लेने से संबंधित हैं।

- In a **special resolution**, **Chief Minister M.K. Stalin** stated that **30% of the voters** should be **DMK members** by the time of the **next Assembly election**.

एक विशेष प्रस्ताव में मुख्यमंत्री एम. के. स्टालिन ने कहा कि अगले विधानसभा चुनाव तक 30% मतदाता डीएमके के सदस्य होने चाहिए।

- He further directed that within the **next two months**, all party members from **district-level to branch-level functionaries** must meet their **membership targets**.

उन्होंने यह भी निर्देश दिया कि अगले दो महीनों में पार्टी के जिला स्तर से शाखा स्तर तक के सभी पदाधिकारियों को अपने सदस्यता लक्ष्य पूरे करने होंगे।

- At the meeting, it was also announced that **two new party wings** would be created — one for **persons with disabilities** and another for **academicians**.

बैठक में यह भी घोषणा की गई कि पार्टी में दो नए प्रकोष्ठ बनाए जाएंगे — एक विकलांग व्यक्तियों के लिए और दूसरा शिक्षाविदों के लिए।



# In a first in 2 decades, EC revises voter list for June 19 bypolls

GS Paper II: Election

**Press Trust of India**  
NEW DELHI

For the first time in nearly two decades, the Election Commission revised the voters' list of five constituencies for holding Assembly byelections in a bid to ensure a "spotless" electoral roll.

The last time a special summary revision took place for a bypoll was in 2006 in Tamil Nadu, officials pointed out.

Special summary revision is the legal term for revision of electoral rolls to weed out voters who have left the constituency or have died, and to add new names.

Citing provisions of the Representation of the People Act, 1950, officials said the electoral roll was to be revised before every election and bypoll unless otherwise directed by the EC.

If the electoral roll was not revised, the validity or continued operation of the said electoral roll should not be affected, they said, quoting the law.

The validity of the current electoral roll continues till the completion of the special revision.

Officials underlined that it was for the commission to decide if revision of elec-



The EC undertook this step to ensure a spotless electoral roll.

toral rolls had to be conducted or not, depending on the requirement.

## Five bypolls

Bypolls to five Assembly seats in four States will be held on June 19, the poll authority announced last month.

While two Assembly bypolls will be held in Gujarat, one each will take place in Kerala, West Bengal and Punjab. The counting of votes will take place on June 23.

Bypolls to the Kadi seat in Gujarat, Ludhiana seat in Punjab and Kaliganj seat in West Bengal were necessitated due to the deaths of respective sitting MLAs.

Bypolls to Visavadar seat in Gujarat and Nilambur seat in Kerala are taking place following the resignations of sitting MLAs.

अन्य निर्देश न हों।

- If the roll is not revised, the **validity** and **continuity** of the electoral roll shall remain unaffected, as per the law.

## EC revises voter list for June 19 bypolls after nearly two decades

लगभग दो दशकों बाद 19 जून उपचुनाव के लिए निर्वाचन आयोग ने मतदाता सूची में संशोधन किया

For the first time in nearly two decades, the Election Commission has revised the voters' list of five constituencies for conducting Assembly byelections, aiming to ensure a "spotless" electoral roll.

लगभग बीस वर्षों में पहली बार, निर्वाचन आयोग ने पांच निर्वाचन क्षेत्रों की मतदाता सूची को संशोधित किया है ताकि निर्वाचन सूची को "निर्मल" बनाया जा सके।

- The last **special summary revision** for a bypoll took place in **2006** in **Tamil Nadu**, officials noted.

अधिकारियों के अनुसार, किसी उपचुनाव के लिए अंतिम विशेष संक्षिप्त पुनरीक्षण 2006 में तमिलनाडु में हुआ था।

- **Special summary revision** is a legal process to remove names of **deceased or migrated voters** and to add names of **new voters**.

विशेष संक्षिप्त पुनरीक्षण एक कानूनी प्रक्रिया है जिसके तहत मृत या स्थानांतरित मतदाताओं के नाम हटाए जाते हैं और नए मतदाताओं के नाम जोड़े जाते हैं।

- Citing the **Representation of the People Act, 1950**, officials said the **electoral roll must be revised before every election or bypoll, unless otherwise instructed by the EC.**

जन प्रतिनिधित्व अधिनियम, 1950 का हवाला देते हुए अधिकारियों ने कहा कि हर चुनाव या उपचुनाव से पहले मतदाता सूची का पुनरीक्षण जरूरी है, जब तक कि निर्वाचन आयोग द्वारा



यदि सूची का पुनरीक्षण नहीं होता है, तब भी कानून के अनुसार उसकी वैधता और जारी रहना प्रभावित नहीं होता।

- The current **electoral roll** will remain valid till the completion of the **special revision**. वर्तमान मतदाता सूची तब तक वैध मानी जाएगी जब तक कि विशेष पुनरीक्षण पूरा नहीं हो जाता।
- Officials emphasized that it is up to the **Election Commission** to decide whether the **revision** of rolls is required.

अधिकारियों ने जोर देकर कहा कि यह निर्णय लेना निर्वाचन आयोग के विवेक पर निर्भर है कि पुनरीक्षण की आवश्यकता है या नहीं।

## Five bypolls on June 19

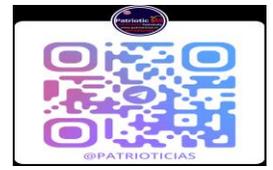
### 19 जून को पांच उपचुनाव

- **Byelections to five Assembly seats in four States** will be held on **June 19**, as announced by the poll authority last month.  
चुनाव आयोग ने पिछले महीने घोषणा की थी कि चार राज्यों की पांच विधानसभा सीटों पर 19 जून को उपचुनाव होंगे।
- Out of these, **two bypolls** will be held in **Gujarat**, and **one each** in **Kerala, West Bengal, and Punjab**.  
इनमें से दो उपचुनाव गुजरात में और एक-एक केरल, पश्चिम बंगाल, और पंजाब में होंगे।
- The **counting of votes** will take place on **June 23**.  
मतगणना 23 जून को की जाएगी।

## Reasons for bypolls

### उपचुनाव के कारण

- The bypolls to **Kadi seat** in **Gujarat**, **Ludhiana seat** in **Punjab**, and **Kaliganj seat** in **West Bengal** were necessitated due to the **deaths** of the sitting MLAs.  
गुजरात की कड़ी सीट, पंजाब की लुधियाना सीट, और पश्चिम बंगाल की कलिगंज सीट पर विधायकों की मृत्यु के कारण उपचुनाव हो रहे हैं।
- The bypolls to **Visavadar seat** in **Gujarat** and **Nilambur seat** in **Kerala** are being held following the **resignations** of the sitting MLAs.  
गुजरात की विसावदर सीट और केरल की नीलांबुर सीट पर विधायकों के इस्तीफे के कारण उपचुनाव हो रहे हैं।



## India warms to foreign law firms, but concerns simmer

GS Paper II: Judiciary  
**Soibam Rocky Singh**  
NEW DELHI

In the winter of February 2000, a sea of black coats surged towards Parliament House. Braving water cannons, tear gas, and lathi charge, over 40,000 lawyers staged an intense protest aimed at blocking the entry of foreign law firms and lawyers into the Indian legal system.

A quarter of a century later, the landscape has shifted dramatically. On May 14, the **Bar Council of India (BCI)** – the regulatory authority for the legal profession – formally notified a set of rules **permitting foreign law firms and lawyers to practise in India. Their role, however, is restricted: they may operate only in non-litigious matters, limited to foreign and international law, and solely on a reciprocal basis.**

The nationwide agitation 25 years ago was triggered by the Law Commission's Working Paper, which proposed amendments to the Advocates Act, 1961, to allow foreign legal consultants to practise in India.

"The entire legal fraternity stood united," recalled advocate and former Delhi Bar Association president Rajiv Khosla, who had led the lawyers' march and lost an eye in a scuffle with the police.

The Supreme Court later reinforced this sentiment in March 2018 when it ruled that foreign law firms and foreign lawyers could not practise law in the country either on the litigation or non-litigation side.

One of the central arguments then was reciprocity, given that Indian advocates were not allowed to



The Bar Council of India rules allow foreign law firms in India for non-litigious, international law work, only on reciprocal basis.

practise in the U.K., U.S., Australia, and other foreign nations without complying with onerous restrictions such as qualifying tests, proof of experience, and work permits.

### The turnaround

In March 2023, the BCI floated a notification permitting foreign lawyers to function in non-litigious areas only. Although that

notification was challenged in the Delhi High Court, and remains under judicial consideration, the latest iteration in May 2025 has cemented the policy shift.

Lalit Bhasin, chairman of the Society of Indian Law Firms (SILF), who was once a vocal opponent of foreign law firms entering India, reflected on the shift in tone: "We welcome

them. They can learn from us, we can learn from them. It would be a good opening for our young lawyers also who can work with them."

### 'Old wine in new bottle'

Still, he expressed concerns that the latest BCI notification might contravene the Supreme Court's 2018 rulings. Mr. Bhasin said the BCI's 2023 notification was kept in abeyance, but the current development amounts to "old wine in a new bottle".

"Our view is, why can't Parliament just amend the law, that is, the Advocates Act, giving liberty to foreign lawyers to come to India to practise? Because the existing law does not permit it," Mr. Bhasin stressed.

Haigreve Khaitan, senior partner at Khaitan & Co, called the move "a positive step". He said, "This will result in increased knowledge sharing, innovation, and faster adoption of global best practices."

Former Bar Council of Delhi chairman K.C. Mittal raised questions about reciprocity. "The whole action is against the Advocates Act, as the same requires amendments in the basic Act. The claim of reciprocity is illusory. Reciprocal means our law degree and enrolments certificates are recognised by them and any lawyer from India can go, appear and argue but it is not so," he said.

Mr. Khosla echoed these concerns. "So far, the BCI has not specified which countries have extended reciprocal access to Indian lawyers. Other countries aren't accepting us, yet we are moving ahead – I don't understand why," he said.

## India warms to foreign law firms, but concerns simmer

### भारत विदेशी लॉ फर्मों के प्रति उदार हुआ, लेकिन चिंताएं बनी हुई हैं

In the winter of February 2000, over 40,000 lawyers wearing black coats protested fiercely outside Parliament House against allowing foreign law firms and lawyers into the Indian legal system.

फरवरी 2000 की सर्दियों में, 40,000 से अधिक वकीलों ने काले कोट पहनकर संसद भवन के बाहर कड़ा विरोध प्रदर्शन किया था, ताकि विदेशी लॉ फर्मों और वकीलों को भारतीय कानूनी प्रणाली में प्रवेश करने से रोका जा सके।

- The protest faced **water cannons, tear gas, and lathi charge** from police. इस विरोध प्रदर्शन का सामना पुलिस की जल तोपों, आंसू गैस, और लाठी चार्ज से हुआ।
- After **25 years**, the situation has changed significantly. **On May 14, the Bar Council of India (BCI)** formally notified rules allowing **foreign law firms and lawyers to practise in India.** पच्चीस साल बाद, स्थिति में काफी बदलाव आया है। 14 मई को, बार काउंसिल ऑफ इंडिया (BCI) ने आधिकारिक रूप से नियम जारी किए जो **विदेशी लॉ फर्मों और वकीलों को भारत में अभ्यास करने की अनुमति देते हैं।**
- **Their practice, however, is limited to non-litigious matters concerning foreign and international law, and only on a reciprocal basis.**



उनका अभ्यास केवल विवादित मामले नहीं बल्कि विदेशी और अंतरराष्ट्रीय कानून तक सीमित है, और वह भी परस्पर आधार पर ही होगा।

- The agitation in 2000 was sparked by the **Law Commission's Working Paper**, which proposed amending the **Advocates Act, 1961** to allow foreign legal consultants to practise in India.  
2000 में यह आंदोलन कानून आयोग के कार्यपत्र द्वारा भड़काया गया था, जिसमें एडवोकेट्स एक्ट, 1961 में संशोधन की सलाह दी गई थी ताकि विदेशी कानूनी सलाहकार भारत में अभ्यास कर सकें।
- Advocate and former Delhi Bar Association president **Rajiv Khosla**, who led the march and lost an eye in a police scuffle, recalled the unity of the legal community.  
अधिवक्ता और पूर्व दिल्ली बार एसोसिएशन के अध्यक्ष **राजीव खोसला**, जिन्होंने मार्च का नेतृत्व किया था और पुलिस संघर्ष में अपनी एक आंख खो दी थी, ने कानूनी समुदाय की एकता को याद किया।
- In **March 2018**, the **Supreme Court** ruled that foreign law firms and lawyers cannot practise in India in either litigation or non-litigation matters.  
**मार्च 2018** में, **सुप्रीम कोर्ट** ने फैसला दिया कि विदेशी लॉ फर्म और वकील भारत में न तो विवादित मामलों में और न ही गैर-विवादित मामलों में अभ्यास कर सकते हैं।
- A key argument was **reciprocity**, since Indian lawyers face strict restrictions like qualifying tests and work permits to practise in countries like the **UK, US, Australia**, etc.  
मुख्य तर्क था **परस्परता**, क्योंकि भारतीय वकीलों को **यूके, अमेरिका, ऑस्ट्रेलिया** जैसे देशों में अभ्यास के लिए कठोर नियमों जैसे क्वालिफाइंग टेस्ट और वर्क परमिट का सामना करना पड़ता है।

## The turnaround

### परिवर्तन

- In **March 2023**, the BCI issued a notification allowing foreign lawyers to practise only in **non-litigious areas**.  
**मार्च 2023** में, BCI ने एक अधिसूचना जारी की जिसमें विदेशी वकीलों को केवल **गैर-विवादित** क्षेत्रों में अभ्यास करने की अनुमति दी गई।
- This notification was challenged in the **Delhi High Court** and is still under judicial review.  
इस अधिसूचना को **दिल्ली हाई कोर्ट** में चुनौती दी गई और यह अभी भी न्यायिक समीक्षा के अधीन है।
- The latest update in **May 2025** has confirmed this policy change.  
**मई 2025** में नया अपडेट इस नीति परिवर्तन को पक्का कर चुका है।
- Lalit Bhasin, chairman of the **Society of Indian Law Firms (SILF)** and former opponent of foreign firms, now welcomes them, seeing it as a learning opportunity for both sides.  
**साँसाइटी ऑफ इंडियन लॉ फर्मर्स (SILF)** के अध्यक्ष **ललित भसीन**, जो पहले विदेशी फर्मों के खिलाफ थे, अब उनका स्वागत करते हैं और इसे दोनों पक्षों के लिए सीखने का मौका मानते हैं।



## ‘Old wine in new bottle’

### ‘नई बोतल में पुराना शराब’

- However, Mr. Bhasin expressed concern that the new BCI notification might violate the **Supreme Court’s 2018 ruling**.  
हालांकि, भसीन ने चिंता जताई कि नया BCI नोटिफिकेशन **सुप्रीम कोर्ट के 2018 के फैसले** का उल्लंघन कर सकता है।
- He said the **2023 notification** was kept on hold, but the current one is just “**old wine in a new bottle**”.  
उन्होंने कहा कि **2023 की अधिसूचना** स्थगित कर दी गई थी, लेकिन वर्तमान अधिसूचना सिर्फ “**नई बोतल में पुराना शराब**” है।
- He urged that **Parliament should amend the Advocates Act** to legally allow foreign lawyers to practise in India, as the existing law does not permit it.  
उन्होंने आग्रह किया कि **संसद को एडवोकेट्स एक्ट** में संशोधन करना चाहिए ताकि विदेशी वकीलों को कानूनी रूप से भारत में अभ्यास करने की अनुमति दी जा सके, क्योंकि वर्तमान कानून इसकी अनुमति नहीं देता।
- Senior partner **Haigreve Khaitan** of Khaitan & Co called the move “**a positive step**”, saying **it will increase knowledge sharing, innovation, and adoption of global best practices**.  
**खैतान एंड को** के वरिष्ठ साझेदार **हैग्रेव खैतान** ने इस कदम को “**सकारात्मक**” कहा और कहा कि इससे **ज्ञान साझा करने, नवाचार, और वैश्विक सर्वोत्तम प्रथाओं को अपनाने में वृद्धि** होगी।
- Former Bar Council of Delhi chairman **K.C. Mittal** questioned the claim of **reciprocity**, saying **it is illusory because Indian law degrees and enrolments are not recognized abroad**.  
पूर्व दिल्ली बार काउंसिल के अध्यक्ष **के.सी. मित्तल** ने **परस्परता** के दावे पर सवाल उठाया और कहा कि यह **मिथ्या** है क्योंकि भारतीय कानून की डिग्रियां और नामांकन प्रमाण पत्र विदेशों में मान्यता प्राप्त नहीं हैं।
- Mr. Khosla also shared concerns that the **BCI has not clarified which countries offer reciprocal access to Indian lawyers**.  
श्री खोसला ने भी चिंता जताई कि BCI ने अभी तक यह स्पष्ट नहीं किया है कि कौन-कौन से देश भारतीय वकीलों को **परस्पर प्रवेश** प्रदान करते हैं।
- He said many countries do not accept Indian lawyers, yet India is moving forward with this policy without understanding why.  
उन्होंने कहा कि कई देश भारतीय वकीलों को स्वीकार नहीं करते, फिर भी भारत इस नीति के साथ आगे बढ़ रहा है, जिसका वह कारण समझ नहीं पा रहे।



# Mexicans elect their judges under shadow of organised crime

GS Paper II: Judiciary

**Agence France-Presse**

MEXICO CITY

Mexico holds unprecedented elections on Sunday, allowing voters to choose their judges at all levels – a first worldwide.

Voters will choose about 880 federal and local judges, including Supreme Court justices in a country where drug cartels and other vested interests regularly seek to alter the course of justice.

The government says this reform, making Mexico the world's only country to select all of its judges and magistrates by popular vote, is needed to tackle deep-rooted corruption and impunity in a country, where drug cartels regularly seek to influence justice.

However, there are concerns that the judiciary will

be politicised and that it will become easier for criminals to influence the courts with threats and bribery.

While corruption is already an issue, “there is reason to believe that elections may be more easily infiltrated by organised crime than other methods of judicial selection,” said Margaret Satterthwaite, the UN special rapporteur on independence of judges and lawyers. They also “entail a risk that the electorate will not choose candidates based on their merit,” she added.

“It is logical that organised criminal groups would have approached candidates who are important to them,” said Luis Carlos Ugalde, a consultant and former head of Mexico's electoral commission.

## Mexicans Elect Their Judges Under Shadow of Organised Crime

### संगठित अपराध की छाया में मेक्सिको में जजों का चुनाव

Mexico holds unprecedented elections on Sunday, allowing voters to choose their judges at all levels — a first worldwide.

मेक्सिको ने रविवार को ऐतिहासिक चुनाव कराए, जिसमें मतदाताओं को सभी स्तरों पर अपने जजों को चुनने की अनुमति दी गई — यह दुनिया में पहली बार हुआ है।

- Voters will choose about **880 federal and local judges**, including **Supreme Court justices**, in a country where **drug cartels** and other **vested interests** regularly seek to alter the course of justice.

मतदाता लगभग **880 संघीय और स्थानीय जजों** का चयन करेंगे, जिनमें **सुप्रीम कोर्ट के न्यायाधीश** भी शामिल हैं, एक ऐसे देश में जहाँ **ड्रग कार्टेल** और अन्य **निहित स्वार्थ** नियमित रूप से **न्याय की दिशा** को प्रभावित करने का प्रयास करते हैं।

- The government says this reform, making Mexico the **world's only country** to select all judges and magistrates by **popular vote**, is needed to tackle **deep-rooted corruption** and **impunity**.

सरकार का कहना है कि यह सुधार, जो मेक्सिको को दुनिया का एकमात्र देश बनाता है जो लोकमत से



सभी जजों और मजिस्ट्रेटों का चयन करता है, गहरी जड़ें जमा चुकी भ्रष्टाचार और दण्डमुक्ति से निपटने के लिए आवश्यक है।

- However, there are concerns that the **judiciary will be politicised**, and that it will become easier for **criminals** to influence the courts through **threats and bribery**. हालाँकि, यह चिंता जताई जा रही है कि **न्यायपालिका का राजनीतिकरण** हो सकता है और **अपराधियों** के लिए **धमकी और रिश्वत** के ज़रिए अदालतों को प्रभावित करना आसान हो जाएगा।
- While **corruption** is already an issue, “there is reason to believe that elections may be **more easily infiltrated** by **organised crime** than other methods of judicial selection,” said **Margaret Satterthwaite**, the **UN Special Rapporteur on independence of judges and lawyers**.

जबकि **भ्रष्टाचार** पहले से ही एक समस्या है, **संयुक्त राष्ट्र की विशेष प्रतिनिधि मार्गरेट सैटरथवेट** ने कहा कि “ऐसा मानने का कारण है कि न्यायिक चयन की अन्य विधियों की तुलना में **चुनावों में संगठित अपराधियों की घुसपैठ ज्यादा आसान** हो सकती है।”

- They also “entail a risk that the **electorate** will not choose candidates based on their **merit**,” she added. उन्होंने यह भी जोड़ा कि इसमें यह जोखिम भी है कि **मतदाता उम्मीदवारों का चयन उनके योग्यता के आधार पर नहीं करेंगे**।
- “It is logical that **organised criminal groups** would have approached candidates who are important to them,” said **Luis Carlos Ugalde**, a **consultant** and former **head of Mexico’s electoral commission**.

**सलाहकार और मेक्सिको के चुनाव आयोग के पूर्व प्रमुख लुइस कार्लोस उगाल्दे** ने कहा, “यह स्वाभाविक है कि **संगठित आपराधिक समूह उन उम्मीदवारों के संपर्क में आए होंगे जो उनके लिए महत्वपूर्ण हैं**।”



## Iran vows retaliation if Europeans 'exploit' UN nuclear report

GS Paper II: international institutes  
TEHRAN

Iran on Sunday warned it would retaliate if European powers that have threatened to reimpose nuclear sanctions "exploit" a UN report showing Tehran has stepped up production of highly enriched uranium.

The report by the International Atomic Energy Agency said Iran had sharply increased its stockpile of uranium enriched to up to 60%, close to the roughly 90% level needed for atomic weapons.

Iran's total amount of enriched uranium now exceeds 45 times the limit authorised by a landmark 2015 agreement with world powers, and is estimated at 9,247.6 kg, according to the confidential IAEA report.

Iranian Foreign Minister Abbas Araghchi said he told IAEA chief Rafael Grossi in a phone call that "Iran will respond to any inappropriate action by the European parties" to the 2015 agreement, referring to Britain, France and Germany.

### Europe's warning

The European trio have warned they could reimpose sanctions if they deemed Iran's nuclear programme a threat to the continent's security.

Mr. Araghchi urged Mr. Grossi in their Saturday call to stop "parties from exploiting" the nuclear watchdog report "to advance their political objectives", according to the statement.

The IAEA Board of Governors is set to review Iran's nuclear activities in its upcoming quarterly meeting in Vienna starting June 9.

Iran rejected the IAEA report, the latest move in

The report said Iran increased its stockpile of enriched uranium to the 90% level needed for atomic weapons

years-long efforts to restrict its nuclear activities over fears that it is seeking to develop nuclear weapons.

The Islamic republic has denied seeking nuclear arms and says it needs the uranium for civilian power production.

The report was leaked as Iran and the United States have been engaged in negotiations towards a new nuclear deal, after Washington had unilaterally abandoned the agreement between Tehran and world powers in 2018, during President Donald Trump's first term.

### U.S. proposal

Mr. Araghchi said on Saturday that he had received "elements" of a U.S. proposal for a potential nuclear deal following five rounds of talks mediated by Oman.

Iran would respond "in line with the principles, national interests and rights" of its people, Mr. Araghchi added in a post on X.

White House press secretary Karoline Leavitt said that the United States "has sent a detailed and acceptable proposal to the Iranian regime, and it's in their best interest to accept it", the *New York Times* reported.

The proposal was described as a series of bullet points rather than a full draft, according to the *New York Times*, citing officials familiar with the diplomatic exchanges.

## Iran Vows Retaliation if Europeans 'Exploit' UN Nuclear Report

यदि यूरोपीय देश संयुक्त राष्ट्र परमाणु रिपोर्ट का

'दुरुपयोग' करते हैं तो ईरान बदला लेने की चेतावनी देता है

Iran on Sunday warned it would retaliate if European powers that have threatened to reimpose nuclear sanctions "exploit" a UN report showing Tehran has stepped up production of highly enriched uranium.

रविवार को ईरान ने चेतावनी दी कि यदि यूरोपीय शक्तियाँ, जो फिर से परमाणु प्रतिबंध लगाने की धमकी दे रही हैं, संयुक्त राष्ट्र रिपोर्ट का दुरुपयोग करती हैं, तो वह बदला लेगा, जिसमें दिखाया गया है कि तेहरान ने उच्च स्तर पर समृद्ध यूरेनियम का उत्पादन बढ़ा दिया है।

• The report by the **International Atomic Energy Agency (IAEA)** said Iran had sharply increased its stockpile of uranium enriched up to 60%, close to the roughly 90% level needed for atomic weapons.

अंतरराष्ट्रीय परमाणु ऊर्जा एजेंसी (IAEA) की रिपोर्ट के अनुसार, ईरान ने 60% तक समृद्ध यूरेनियम का भंडार तेजी से बढ़ा दिया है, जो कि परमाणु हथियारों के लिए आवश्यक लगभग 90% स्तर के करीब है।

• Iran's total amount of enriched uranium now exceeds 45 times the limit authorised by the 2015 agreement with world powers, and is estimated at 9,247.6 kg, according to the confidential IAEA report.

गोपनीय IAEA रिपोर्ट के अनुसार, ईरान का समृद्ध यूरेनियम अब 2015 के समझौते में अनुमत सीमा से 45 गुना अधिक है और इसका अनुमानित मात्रा 9,247.6 किलोग्राम है।

• Iranian Foreign Minister Abbas Araghchi said he told IAEA chief Rafael Grossi in a phone call that "Iran will respond to any inappropriate action by the European parties" to the 2015 agreement, referring to Britain, France and Germany.

ईरान के विदेश मंत्री अब्बास अराघची ने कहा कि उन्होंने IAEA प्रमुख राफेल ग्रोसी से फोन पर बात की और कहा कि "2015 के समझौते के तहत यदि ब्रिटेन, फ्रांस और जर्मनी जैसे यूरोपीय पक्ष कोई अनुचित कार्रवाई करते हैं, तो ईरान जवाब देगा।"



## Europe's Warning

### यूरोप की चेतावनी

- The **European trio** have warned they could reimpose **sanctions** if they deem **Iran's nuclear programme** a **threat** to the continent's security.  
यूरोपीय त्रय ने चेतावनी दी है कि यदि वे ईरान के परमाणु कार्यक्रम को महाद्वीप की सुरक्षा के लिए खतरा मानते हैं, तो वे फिर से प्रतिबंध लगा सकते हैं।
- Mr. Araghchi urged Mr. Grossi in their **Saturday** call to stop "parties from exploiting" the **nuclear watchdog report** "to advance their political objectives", according to the statement.  
शनिवार को हुई कॉल में श्री अराघची ने श्री ग्रोसी से आग्रह किया कि वे "परमाणु निगरानी रिपोर्ट" का राजनीतिक उद्देश्यों के लिए दुरुपयोग करने से पक्षों को रोकें।
- The **IAEA Board of Governors** is set to review Iran's **nuclear activities** in its upcoming **quarterly meeting** in **Vienna** starting **June 9**.  
IAEA के गवर्नर्स बोर्ड द्वारा ईरान की परमाणु गतिविधियों की समीक्षा 9 जून से वियना में शुरू होने वाली आगामी त्रैमासिक बैठक में की जाएगी।
- Iran rejected the **IAEA report**, the latest move in years-long efforts to restrict its **nuclear activities** over fears that it is seeking to develop **nuclear weapons**.  
ईरान ने IAEA रिपोर्ट को खारिज कर दिया, जो उसकी परमाणु गतिविधियों को सीमित करने के वर्षों पुराने प्रयासों की एक नवीनतम कड़ी है, क्योंकि यह आशंका जताई जा रही है कि वह परमाणु हथियार विकसित करने की कोशिश कर रहा है।
- The **Islamic republic** has denied seeking **nuclear arms** and says it needs the **uranium** for **civilian power production**.  
इस्लामी गणराज्य ने परमाणु हथियारों की इच्छा से इनकार किया है और कहा है कि उसे यूरेनियम की आवश्यकता सिविल बिजली उत्पादन के लिए है।
- The report was leaked as **Iran** and the **United States** have been engaged in **negotiations** towards a **new nuclear deal**, after Washington had unilaterally abandoned the agreement in **2018**, during President **Donald Trump's** first term.  
यह रिपोर्ट तब लीक हुई जब ईरान और संयुक्त राज्य अमेरिका नए परमाणु समझौते को लेकर वार्ताओं में लगे हुए हैं, जबकि वॉशिंगटन ने 2018 में राष्ट्रपति डोनाल्ड ट्रंप के पहले कार्यकाल के दौरान समझौते को एकतरफा रूप से छोड़ दिया था।

## U.S. Proposal

### अमेरिका का प्रस्ताव

- Mr. Araghchi said on **Saturday** that he had received "elements" of a **U.S. proposal** for a potential **nuclear deal** following **five rounds** of talks **mediated by Oman**.



श्री अराघची ने शनिवार को कहा कि उन्हें ओमान की मध्यस्थता में हुई पांच दौर की वार्ताओं के बाद संभावित परमाणु समझौते के लिए अमेरिका के प्रस्ताव के “कुछ तत्व” प्राप्त हुए हैं।

- Iran would respond “in line with the **principles, national interests, and rights**” of its people, Mr. Araghchi added in a post on X.

श्री अराघची ने X पर एक पोस्ट में कहा कि ईरान अपनी जनता के सिद्धांतों, राष्ट्रीय हितों और अधिकारों के अनुरूप प्रतिक्रिया देगा।

- **White House press secretary Karoline Leavitt** said that the **United States** “has sent a **detailed and acceptable proposal** to the Iranian regime, and it’s in their best interest to accept it”, according to the **New York Times**.

व्हाइट हाउस की प्रेस सचिव कैरोलिन लीविट ने कहा कि संयुक्त राज्य अमेरिका ने ईरान सरकार को एक विस्तृत और स्वीकार्य प्रस्ताव भेजा है और इसे स्वीकार करना उनके सर्वोत्तम हित में होगा, न्यूयॉर्क टाइम्स के अनुसार।

The proposal was described as a **series of bullet points** rather than a **full draft**, according to the **New York Times**, citing officials familiar with the **diplomatic exchanges**.

न्यूयॉर्क टाइम्स के अनुसार, जो राजनयिक संवाद से परिचित अधिकारियों का हवाला दे रहा था, यह प्रस्ताव पूर्ण मसौदा नहीं बल्कि बिंदुवार बयानों की एक श्रृंखला के रूप में वर्णित किया गया है।

## International Atomic Energy Agency (IAEA) अंतर्राष्ट्रीय परमाणु ऊर्जा एजेंसी (IAEA)

- The **International Atomic Energy Agency (IAEA)** is an **intergovernmental organization** established in **1957** to promote the **peaceful use of nuclear energy** and prevent its use for **military purposes**, including nuclear weapons.

अंतर्राष्ट्रीय परमाणु ऊर्जा एजेंसी (IAEA) एक सरकारी संगठन है, जिसकी स्थापना 1957 में परमाणु ऊर्जा के शांतिपूर्ण उपयोग को बढ़ावा देने और इसे सैन्य उद्देश्यों, जैसे परमाणु हथियारों के उपयोग से रोकने के लिए की गई थी।

- Headquartered in **Vienna, Austria**, the IAEA operates as an **autonomous organization** within the **United Nations system**, reporting to both the **General Assembly** and the **Security Council**.

वियना, ऑस्ट्रिया में मुख्यालय स्थित, IAEA संयुक्त राष्ट्र प्रणाली के भीतर एक स्वायत्त संगठन के रूप में कार्य करता है, और सामान्य सभा तथा सुरक्षा परिषद दोनों को रिपोर्ट करता है।



## Historical Background

### ऐतिहासिक पृष्ठभूमि

- The IAEA was created in response to growing international concern over nuclear weapons, especially amid rising tensions between the **United States** and the **Soviet Union** during the Cold War.

IAEA की स्थापना **संयुक्त राज्य अमेरिका** और **सोवियत संघ** के बीच बढ़ते तनाव के दौरान परमाणु हथियारों को लेकर बढ़ती अंतरराष्ट्रीय चिंता के जवाब में की गई थी।

- The agency's formation was catalyzed by **U.S. President Dwight D. Eisenhower's "Atoms for Peace" speech in 1953**, advocating for an international body to oversee nuclear technology's peaceful applications. एजेंसी की स्थापना **अमेरिकी राष्ट्रपति ड्वाइट डी. आइजनहावर** के **1953** में दिए गए "Atoms for Peace" भाषण से प्रेरित थी, जिसमें परमाणु तकनीक के शांतिपूर्ण उपयोग की निगरानी के लिए एक अंतरराष्ट्रीय निकाय की वकालत की गई थी।

## Functions and Objectives

### कार्य और उद्देश्य

- The IAEA serves as a central forum for **scientific and technical cooperation** in the nuclear field, promoting the **safe, secure, and peaceful** use of nuclear technologies.

IAEA परमाणु क्षेत्र में **वैज्ञानिक और तकनीकी सहयोग** के लिए एक केंद्रीय मंच के रूप में कार्य करता है, और **सुरक्षित, सुरक्षित, और शांतिपूर्ण** परमाणु तकनीकों के उपयोग को बढ़ावा देता है।

- It implements **safeguards** to verify that nuclear materials are not diverted to weapons programs and promotes **nuclear safety** and **security standards**.

यह सुनिश्चित करने के लिए **सुरक्षा उपाय** लागू करता है कि परमाणु सामग्री हथियार कार्यक्रमों की ओर मोड़ी न जाए, और **परमाणु सुरक्षा** और **सुरक्षा मानकों** को बढ़ावा देता है।

- The agency also provides **technical assistance** and **training** to countries, especially in the **developing world**, to utilize nuclear technology for **medical, agricultural, and industrial** purposes.



एजेंसी देशों, विशेष रूप से विकासशील देशों को चिकित्सा, कृषि, और औद्योगिक उद्देश्यों के लिए परमाणु तकनीक का उपयोग करने में तकनीकी सहायता और प्रशिक्षण भी प्रदान करती है।

### Role in Non-Proliferation

#### गैर-प्रसार में भूमिका

- Following the **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)** in **1968**, non-nuclear-weapon states are required to negotiate **safeguards agreements** with the IAEA, granting the agency authority to monitor nuclear programs and inspect facilities.

**1968** में परमाणु हथियारों के अप्रसार संधि (NPT) के बाद, गैर-परमाणु हथियार राज्यों को IAEA के साथ सुरक्षा समझौतों पर बातचीत करनी होती है, जिससे एजेंसी को परमाणु कार्यक्रमों की निगरानी और सुविधाओं का निरीक्षण करने का अधिकार मिलता है।

### Recognition and Leadership

#### मान्यता और नेतृत्व

- In **2005**, the IAEA and its then Director General, **Mohamed ElBaradei**, were jointly awarded the **Nobel Peace Prize** for their efforts to prevent nuclear energy from being used for military purposes and to ensure its safe use for peaceful purposes.

**2005** में, IAEA और इसके तत्कालीन महानिदेशक **मोहम्मद अलबरदेई** को परमाणु ऊर्जा के सैन्य उद्देश्यों के लिए उपयोग को रोकने और इसके शांतिपूर्ण उद्देश्यों के लिए सुरक्षित उपयोग को सुनिश्चित करने के प्रयासों के लिए संयुक्त रूप से **नोबेल शांति पुरस्कार** से सम्मानित किया गया था।

- As of **2025**, the current Director General is **Rafael Mariano Grossi**, who has been serving since **December 2019**.

**2025** तक, वर्तमान महानिदेशक **राफेल मारियानो ग्रोसी** हैं, जो **दिसंबर 2019** से इस पद पर कार्यरत हैं।

### Recent Developments

#### हाल की घटनाएँ



- The IAEA continues to play a crucial role in monitoring nuclear activities worldwide, including in regions with geopolitical tensions, to ensure compliance with international agreements and promote nuclear safety.

IAEA दुनिया भर में परमाणु गतिविधियों की निगरानी में महत्वपूर्ण भूमिका निभाता है, जिसमें भू-राजनीतिक तनाव वाले क्षेत्र भी शामिल हैं, ताकि अंतरराष्ट्रीय समझौतों का पालन सुनिश्चित किया जा सके और परमाणु सुरक्षा को बढ़ावा दिया जा सके।

- The agency also collaborates with various countries to advance nuclear techniques for peaceful purposes, such as in the fields of medicine and agriculture.

एजेंसी विभिन्न देशों के साथ मिलकर चिकित्सा और कृषि जैसे क्षेत्रों में शांतिपूर्ण उद्देश्यों के लिए परमाणु तकनीकों को आगे बढ़ाने के लिए सहयोग करती है।

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

#### 1. 10-year-old Tiger Found Dead in Mudumalai

मुदुमलाई में 10 वर्षीय बाघ मृत पाया गया

#### 2. No Need to Fear COVID-19, Thanks to Acquired Immunity: Soumya Swaminathan

अर्जित प्रतिरक्षा के कारण COVID-19 से डरने की आवश्यकता नहीं:  
सौम्या स्वामीनाथन

#### 3. Karnataka to study carrying capacity of Western Ghats

कर्नाटक पश्चिमी घाट की वहन क्षमता का अध्ययन करेगा

#### 4. Fair price shops back in operation in A.P.

आंध्र प्रदेश में सस्ता दर की दुकानों का पुनः संचालन

#### 5. Musk retains plan to fly Starship to Mars in 2026 despite setbacks



मस्क ने setbacks के बावजूद 2026 में Starship को मंगल ग्रह पर भेजने की योजना बरकरार रखी

**6. Wrong Call**

ग़लत फैसला

**7. Regulating India's Virtual Digital Assets Revolution**

भारत में वर्चुअल डिजिटल संपत्ति क्रांति को नियंत्रित करना

**8. India's Rise to 4th Largest Economy Belies Per Capita Reality**

भारत का चौथी सबसे बड़ी अर्थव्यवस्था बनना प्रति व्यक्ति वास्तविकता को छुपाता है

**9. Is India the world's fourth largest economy?**

क्या भारत दुनिया की चौथी सबसे बड़ी अर्थव्यवस्था है?

**10. How the technology industry is trying to meet its climate goals**

प्रौद्योगिकी उद्योग जलवायु लक्ष्यों को कैसे प्राप्त करने की कोशिश कर रहा है



## 10-year-old tiger found dead in Mudumalai

GS Paper III: Environment

The Hindu Bureau  
UDHAGAMANDALAM

A 10-year-old tiger was found dead in the Segur forest range on Sunday morning. The Forest Department said the carcass of the animal was found in Gundatti beat of the Segur forest range in the buffer zone of the **Mudumalai Tiger Reserve**.

A post-mortem on the remains of the animal was ordered based on the protocols established by the National Tiger Conservation Authority (NTCA), the department said. Preliminary investigations revealed that the tiger seemed to have suffered injuries, possibly caused by in-fighting with another animal.

The department added that samples from the animal were taken for forensic analysis to confirm the cause of death.

This was the second tiger death recorded in the Nilgiris in the past few days. On Thursday, another tiger, aged around eight years, died in the Pykara forest range in the Nilgiris Forest Division.

Forest officials said that preliminary investigations point to both animals dying as a consequence of natural causes.

## 10-year-old Tiger Found Dead in Mudumalai मुदुमलाई में 10 वर्षीय बाघ मृत पाया गया

A 10-year-old tiger was found dead on Sunday morning in the Segur forest range.

रविवार सुबह सेगूर वन क्षेत्र में एक 10 वर्षीय बाघ मृत पाया गया।

The **Forest Department** said the carcass was discovered in the **Gundatti beat** of the Segur range, which lies in the **buffer zone** of the **Mudumalai Tiger Reserve**.

वन विभाग ने बताया कि बाघ का शव सेगूर रेंज के गुंडट्टी बीट में मिला, जो मुदुमलाई टाइगर रिज़र्व के बफर ज़ोन में स्थित है।

A **post-mortem** was ordered based on protocols laid out by the **National Tiger Conservation Authority (NTCA)**.

**नेशनल टाइगर कंजर्वेशनथॉरिटी (एनटीसीए)** द्वारा निर्धारित नियमों के आधार पर पोस्टमॉर्टम का आदेश दिया गया।

**Preliminary investigations** indicated that the tiger may have suffered **injuries**, possibly from **in-fighting** with another animal.

**प्रारंभिक जांच** में पाया गया कि बाघ को संभवतः किसी अन्य जानवर से लड़ाई में चोटें आई थीं।

The department stated that **samples** had been collected from the carcass for **forensic analysis** to determine the **exact cause of death**.

विभाग ने बताया कि **मृत शरीर से नमूने** लिए गए हैं ताकि **फॉरेंसिक जांच** के जरिये **मृत्यु का सही कारण** पता चल सके।

This was the **second tiger death** reported in the **Nilgiris** in recent days. यह पिछले कुछ दिनों में नीलगिरि क्षेत्र में दूसरी बाघ की मौत थी।

Earlier, on **Thursday**, an **eight-year-old tiger** had died in the **Pykara forest range** of the **Nilgiris Forest Division**.

इससे पहले **गुरुवार** को नीलगिरि वन प्रभाग के पायकारा वन क्षेत्र में एक आठ वर्षीय बाघ की मौत हुई थी।

**Forest officials** said that preliminary findings suggest that **both tigers** likely died due to **natural causes**.

वन अधिकारियों ने कहा कि प्रारंभिक जांच से संकेत मिलता है कि **दोनों बाघों** की मौत संभवतः **प्राकृतिक कारणों** से हुई है।



# There is no need to fear COVID-19, thanks to acquired immunity: Soumya Swaminathan

GS Paper III: S&T

**The Hindu Bureau**  
CHENNAI

There is no need to fear COVID-19 due to the immunity people have acquired over the last few years, said Soumya Swaminathan, former chief scientist, World Health Organization (WHO), and chairperson of the M.S. Swaminathan Research Foundation.

According to data from the Union Health Ministry, as of May 31, India has seen an increase of 685 active COVID-19 cases, bringing the total number of cases to 3,395 since January.

Speaking to mediapersons on the sidelines of 'Scope 2025', an international conference on endoscopy organised by the GEM Hospital in Chennai, Dr. Swaminathan explained that the current surge [in COVID-19 cases] is driven by sub-variants of the Omicron strain. While the virus may have undergone some mutations, the overall strain remained the same, she said.

## Similar trend

India and other Southeast Asian countries have reported a similar trend of a slight increase in COVID-19 cases.

She said that the widespread use of vaccines and, in some cases, booster shots, has provided immunity. As a result, even if someone contracts the vi-



The current surge [in COVID-19 cases] has been driven by sub-variants of the Omicron strain

**SOMUYA SWAMINATHAN**  
Former chief scientist,  
World Health Organization

rus, symptoms will likely be mild, such as fever for two days, cough, headache, and body aches.

Dr. Swaminathan also recommended wearing masks when experiencing symptoms such as cough, cold, or fever to prevent it from being transmitted to others.

## 'Follow precautions'

She warned that high-risk individuals – senior citizens and those with diabetes, hypertension, or cardiac and lung conditions – should remain cautious.

She urged everyone to continue following basic precautions, including wearing masks, washing hands thoroughly, and also avoid spitting in public places.

## No Need to Fear COVID-19, Thanks to Acquired Immunity: Soumya Swaminathan

अर्जित प्रतिरक्षा के कारण COVID-19 से डरने की आवश्यकता नहीं: सौम्या स्वामीनाथन

There is no need to fear COVID-19 due to the immunity people have developed over the last few years, said Soumya Swaminathan, former chief scientist of WHO and chairperson of the M.S. Swaminathan Research Foundation.

WHO की पूर्व मुख्य वैज्ञानिक और एम.एस. स्वामीनाथन रिसर्च फाउंडेशन की अध्यक्ष सौम्या स्वामीनाथन ने कहा कि पिछले कुछ वर्षों में लोगों द्वारा विकसित की गई प्रतिरक्षा के कारण COVID-19 से डरने की आवश्यकता नहीं है।

• According to data from the Union Health Ministry, as of May 31, India has reported an increase of 685 active COVID-19 cases, bringing the total number of active cases to 3,395 since January.

केंद्रीय स्वास्थ्य मंत्रालय के आंकड़ों के अनुसार, 31 मई तक भारत में 685 सक्रिय COVID-19 मामलों की वृद्धि हुई है, जिससे जनवरी से अब तक कुल सक्रिय मामले 3,395 हो गए हैं।

• Speaking at the sidelines of 'Scope 2025', an international endoscopy conference organised by GEM Hospital in Chennai, Dr. Swaminathan said that the current surge is due to sub-variants of the Omicron strain.

चेन्नई के GEM अस्पताल द्वारा आयोजित अंतरराष्ट्रीय एंडोस्कोपी सम्मेलन 'Scope 2025' के अवसर पर बोलते हुए डॉ. स्वामीनाथन ने कहा कि वर्तमान वृद्धि ओमिक्रॉन वेरिएंट की उप-प्रजातियों के कारण है।

• She explained that while the virus has mutated, the overall strain remains the same.

उन्होंने बताया कि भले ही वायरस में म्यूटेशन हुआ है, लेकिन मुख्य स्ट्रेन वही बना हुआ है।

## Similar Trend in Southeast Asia

दक्षिण-पूर्व एशिया में भी ऐसा ही रुझान



- **India** and other **Southeast Asian countries** have also reported a **similar trend** of a **slight increase** in COVID-19 cases.  
भारत और अन्य दक्षिण-पूर्व एशियाई देशों में भी COVID-19 मामलों में हल्की वृद्धि का समान रुझान देखा गया है।
- She noted that the **widespread use of vaccines**, and in some cases, **booster shots**, have provided **immunity** to the population.  
उन्होंने बताया कि वैक्सीन का व्यापक उपयोग और कुछ मामलों में बूस्टर डोज़ ने लोगों में प्रतिरक्षा विकसित की है।
- As a result, even if someone **contracts the virus**, the **symptoms are likely to be mild**, such as **fever for two days**, **cough**, **headache**, and **body ache**.  
इस कारण, यदि कोई व्यक्ति वायरस से संक्रमित भी होता है, तो लक्षण सामान्य तौर पर हल्के होंगे, जैसे दो दिन का बुखार, खांसी, सिरदर्द, और शरीर में दर्द।
- Dr. Swaminathan recommended **wearing masks** while experiencing symptoms like **cough**, **cold**, or **fever to avoid transmitting the virus** to others.  
डॉ. स्वामीनाथन ने सुझाव दिया कि खांसी, सर्दी, या बुखार जैसे लक्षण होने पर मास्क पहनना चाहिए ताकि वायरस को दूसरों तक फैलने से रोका जा सके।

## Follow Precautions

### सावधानियाँ अपनाएं

- She warned that **high-risk individuals** — such as **senior citizens** and **people with diabetes, hypertension, heart, or lung conditions** — should remain **cautious**.  
उन्होंने चेतावनी दी कि ज्यादा जोखिम वाले लोग — जैसे वरिष्ठ नागरिक और मधुमेह, हाई ब्लड प्रेशर, हृदय या फेफड़े की बीमारियों से पीड़ित लोग — को सावधान रहना चाहिए।
- She urged everyone to continue following **basic precautions** like **wearing masks**, **washing hands thoroughly**, and **avoiding spitting in public**.  
उन्होंने सभी से आग्रह किया कि वे मास्क पहनना, हाथों को अच्छे से धोना, और सार्वजनिक स्थानों पर थूकने से बचना जैसी बुनियादी सावधानियाँ अपनाते रहें।



# Karnataka to study carrying capacity of Western Ghats

GS Paper III: Environment

**The Hindu Bureau**  
BENGALURU

Karnataka Minister of Forest, Ecology and Environment Eshwar Khandre has directed officials to conduct a study on the carrying capacity of the Western Ghats in the State.

In the wake of landslips recurring in parts of Dakshina Kannada, Kodagu, and other areas during the pre-monsoon showers, the Minister has instructed the officials to conduct a study.

## Report in three months

The Minister, in a note to the Additional Chief Secretary of the Department of Forest, Ecology and Environment Department, has asked officials to conduct the study and submit a



**The Western Ghats,** a

biodiversity hotspot, has 60% of the forests in Karnataka, which are home to a variety of flora, fauna and insect species

**ESHWAR KHANDRE**  
Minister of Forest, Ecology and Environment

comprehensive report within three months.

He said that experts have raised concerns that many roads and other infrastructure projects are being developed in the Western Ghats, which has put the region in danger, causing property damage, crop damage, and loss of life and wildlife as well.

He said that many ex-

perts, scientists, and environmentalists have argued that if the Western Ghats decline, there is a risk of severe water scarcity in the coming days.

“The Western Ghats, a biodiversity hotspot, has 60% of the forests in Karnataka, which are home to a variety of flora, fauna and insect species,” Mr. Khandre said.

## Karnataka to study carrying capacity of Western Ghats

कर्नाटक पश्चिमी घाट की वहन

क्षमता का अध्ययन करेगा

Karnataka's Minister of Forest, Ecology and Environment, Eshwar Khandre, has directed officials to conduct a study on the carrying capacity of the Western Ghats in the State.

कर्नाटक के वन, पारिस्थितिकी और पर्यावरण मंत्री ईश्वर खंडरे ने राज्य में पश्चिमी घाट की वहन क्षमता का अध्ययन कराने का निर्देश दिया है।

• The direction comes in the wake of recurring landslips in parts of **Dakshina Kannada, Kodagu**, and other areas during the pre-monsoon showers.

यह निर्देश पूर्व मानसून की बारिश के दौरान दक्षिण कन्नड़, कोडागु और अन्य क्षेत्रों में बार-बार हो रहे भूस्खलनों के मद्देनजर दिया गया है।

## Report in three months तीन महीनों में रिपोर्ट

- The Minister has sent a note to the **Additional Chief Secretary** of the Forest, Ecology and Environment Department, asking for a **comprehensive report** within **three months**.

मंत्री ने वन, पारिस्थितिकी और पर्यावरण विभाग के अतिरिक्त मुख्य सचिव को एक नोट भेजकर तीन महीनों के भीतर एक विस्तृत रिपोर्ट मांगी है।

- He said that **experts** have raised concerns about **infrastructure projects** like roads being developed in the **Western Ghats**, putting the region in danger. उन्होंने कहा कि **विशेषज्ञों** ने पश्चिमी घाट में सड़कों जैसे बुनियादी ढांचा परियोजनाओं के विकास को लेकर चिंता जताई है, जिससे यह क्षेत्र खतरे में पड़ गया है।
- This development has led to **property damage, crop loss, and the loss of life and wildlife**. इस विकास के कारण संपत्ति का नुकसान, फसल की बर्बादी, और मानव व वन्यजीवों की मौत हुई है।



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- Experts, scientists, and environmentalists have argued that **if the Western Ghats decline, there will be severe water scarcity in the future.**  
विशेषज्ञों, वैज्ञानिकों और पर्यावरणविदों ने तर्क दिया है कि यदि पश्चिमी घाट का क्षरण होता है, तो भविष्य में गंभीर जल संकट हो सकता है।
- Mr. Khandre highlighted that the **Western Ghats, a biodiversity hotspot, has 60% of Karnataka's forests, which are home to a wide variety of flora, fauna, and insect species.**  
श्री खांडरे ने बताया कि पश्चिमी घाट, जो एक जैव विविधता हॉटस्पॉट है, उसमें कर्नाटक के 60% वन क्षेत्र शामिल हैं, जो विभिन्न प्रकार की वनस्पतियों, प्राणियों, और कीट प्रजातियों का घर हैं।

## Fair price shops back in operation in A.P.

GS Paper III: FPS

**T. Appala Naidu**  
PITHAPURAM

State Civil Supplies and Consumer Affairs Minister Nadendla Manohar on Sunday said ₹385 crore could be saved annually by reviving the fair price shops under the Public Distribution System (PDS) in Andhra Pradesh.

Recently, the TDP government had scrapped the doorstep delivery of rations introduced by the former YSRCP regime.

On Sunday, Mr. Manohar launched the distribution of commodities through fair price shops in Pithapuram town in Kakinada district, marking the revival of fair price shops across the State. "The distribution of commodities has commenced at 24,795

### TDP govt. scrapped doorstep delivery of rations introduced by YSRCP regime

fair price shops of the total 29,761 shops on Sunday. As many as 1.46 crore families can get their ration from any fair price shop across the State," he said.

### Relief for elderly

Doorstep delivery will continue for 15.6 lakh elderly people and the physically challenged.

"All fair price shops will be brought under closed circuit camera surveillance system. QR code will be available at the shops for the beneficiaries to register complaints," he said.  
(With PTI inputs)

## Fair price shops back in operation in A.P.

### आंध्र प्रदेश में सस्ता दर की दुकानों का पुनः संचालन

State Civil Supplies and Consumer Affairs Minister Nadendla Manohar said on Sunday that ₹385 crore could be saved annually by reviving the fair price shops under the **Public Distribution System (PDS)** in Andhra Pradesh.

राज्य के नागरिक आपूर्ति एवं उपभोक्ता मामलों के मंत्री नरेंडला मनोहर ने रविवार को कहा कि आंध्र प्रदेश में सार्वजनिक वितरण प्रणाली (PDS) के तहत सस्ता दर की दुकानों को फिर से शुरू करने से प्रतिवर्ष ₹385 करोड़ की बचत हो सकती है।

- Recently, the TDP government scrapped the **doorstep delivery of rations that was introduced by the former YSRCP regime.**

हाल ही में, तेदेपा सरकार ने पूर्ववर्ती वाईएसआरसीपी शासन द्वारा शुरू की गई राशन की घर-घर आपूर्ति को बंद कर दिया।



- On Sunday, Mr. Manohar launched the **distribution of commodities through fair price shops** in Pithapuram town in Kakinada district, marking the revival of fair price shops across the State.  
रविवार को श्री मनोहर ने काकीनाडा जिले के पिथापुरम नगर में सस्ता दर की दुकानों के माध्यम से वस्तुओं के वितरण की शुरुआत की, जिससे राज्यभर में इन दुकानों की पुनः शुरुआत को चिह्नित किया गया।
- The distribution of commodities commenced at **24,795 fair price shops** out of the total **29,761 shops** on Sunday.  
रविवार को कुल 29,761 दुकानों में से 24,795 सस्ता दर की दुकानों पर वस्तुओं का वितरण शुरू हो गया।
- A total of **1.46 crore families** can now get their ration from any **fair price shop** across the State.  
अब कुल 1.46 करोड़ परिवार राज्यभर में किसी भी सस्ता दर की दुकान से अपना राशन प्राप्त कर सकते हैं।

## Relief for elderly

### वृद्धों के लिए राहत

- **Doorstep delivery will continue for 15.6 lakh elderly people and the physically challenged.**  
15.6 लाख वृद्ध नागरिकों और दिव्यांगों के लिए घर-घर राशन वितरण जारी रहेगा।
- **All fair price shops will be brought under a closed circuit camera surveillance system.**  
सभी सस्ता दर की दुकानों को क्लोज़ सर्किट कैमरा निगरानी प्रणाली के तहत लाया जाएगा।
- A QR code will be available at the shops for the beneficiaries to register complaints.  
लाभार्थियों को शिकायत दर्ज करने के लिए दुकानों पर QR कोड उपलब्ध होगा।



Musk plans 2,000 launches in two years. REUTERS

## Musk retains plan to fly Starship to Mars in 2026 despite setbacks

GS Paper III: S&T

Reuters

Two days after the latest in a string of test-flight setbacks for his big new Mars spacecraft, Starship, Elon Musk said on May 29 he foresees the futuristic vehicle making its first uncrewed voyage to the red planet at the end of next year.

Mr. Musk presented a detailed Starship development timeline in a video posted online by his Los Angeles area-based rocket company, SpaceX, a day after saying he was departing the administration of U.S. President Donald Trump as head of a tumultuous campaign to slash government bureaucracy.

The billionaire entrepreneur had said earlier that he was planning to scale back his role in government to focus greater attention on his various businesses, including SpaceX and electric car and battery maker Tesla.

Mr. Musk acknowledged that his latest timeline for reaching Mars hinged on whether Starship can accomplish a number of challenging technical feats during its flight-test development, particularly a post-launch refuelling manoeuvre in earth orbit.

The end of 2026 would coincide with a slim window that occurs once every two years when Mars and the earth align around the sun for the closest trip between the two planets, which would take seven to nine months to transit by

यह

जिसमें उन्होंने कहा था कि वह ट्रम्प प्रशासन से हट रहे हैं ताकि सरकारी भूमिका कम कर अपनी कंपनियों जैसे SpaceX और Tesla पर अधिक ध्यान दे सकें।

- Musk acknowledged that the timeline depends on Starship completing challenging technical feats, especially a **post-launch refuelling maneuver in Earth orbit**.

**Musk envisions launching 1,000 to 2,000 Starships to Mars every two years to man a permanent human settlement. NASA is to use Starship to return humans to the moon around 2027**

spacecraft.

Mr. Musk gave his company a 50% chance of meeting that deadline. If Starship were not ready by that time, SpaceX would wait another two years before trying again, he suggested in the video.

The first flight to Mars would carry a simulated crew consisting of one or more robots of the Tesla-built humanoid Optimus design, with the first human crews following in the second or third landings. Mr. Musk said he envisioned eventually launching 1,000 to 2,000 ships to Mars every two years to quickly establish a self-sustaining permanent human settlement.

NASA is currently aiming to return humans to the surface of the moon aboard Starship around 2027, more than 50 years after its last manned lunar landings of the Apollo era, as a stepping stone to ultimately launching astronauts to Mars sometime in the 2030s.

Mr. Musk has previously said he was aiming to send an uncrewed SpaceX vehicle to the red planet by 2018 and was targeting 2024 to launch a first crewed mission there.

The SpaceX founder was scheduled to deliver a livestream from the company's Texas launch site on May 27 night, following a ninth test flight of Starship that evening.

But the webcast was canceled without notice after Starship spun out of control and disintegrated in a fireball about 30 minutes after launch without achieving some of its most important test goals. Two test flights in January and March failed in more spectacular fashion, with the spacecraft blowing to pieces on ascent moments after liftoff.

Mr. Musk shrugged off the latest mishap, saying it produced a lot of "good data to review," and promised a faster launch cadence for the next several test flights.

**Musk retains plan to fly Starship to Mars in 2026 despite setbacks**

**मस्क ने setbacks के बावजूद 2026 में Starship को मंगल ग्रह पर भेजने की योजना बरकरार रखी**

- Two days after the latest test-flight setbacks for his **new Mars spacecraft, Starship**, Elon Musk said on **May 29** he expects the spacecraft to make its first uncrewed journey to Mars by the end of next year.

अपने नए मंगल अंतरिक्ष यान **Starship** के नवीनतम टेस्ट-फ्लाइट में हुई असफलताओं के दो दिन बाद, **29 मई** को एलोन मस्क ने कहा कि वह अगले साल के अंत तक बिना मानव कू के मंगल ग्रह की पहली यात्रा की उम्मीद करते हैं।

- Musk shared a detailed **Starship development timeline** in a video posted online by SpaceX, his Los Angeles-based rocket company.

मस्क ने अपनी लॉस एंजेलिस स्थित रॉकेट कंपनी SpaceX द्वारा ऑनलाइन पोस्ट किए गए वीडियो में Starship के विकास की विस्तृत समय-सीमा साझा की।

- This announcement came a day after he said he was stepping down from the **Trump administration** to reduce government role and focus more on his businesses including SpaceX and Tesla. घोषणा उनके उस बयान के एक दिन बाद आई



मस्क ने स्वीकार किया कि यह समय-सीमा Starship के कई तकनीकी चुनौतियों को पूरा करने पर निर्भर है, खासकर पृथ्वी की कक्षा में लॉन्च के बाद ईंधन भरने की प्रक्रिया पर।

- The end of **2026** aligns with a rare window that occurs once every two years, when **Mars and Earth are closest**, making the trip take about **7 to 9 months**.

**2026 के अंत** में एक दुर्लभ अवसर आता है जो हर दो साल में एक बार होता है, जब मंगल और पृथ्वी सबसे करीब होते हैं, जिससे यात्रा में लगभग **7 से 9 महीने** लगेंगे।

- Musk estimated a **50% chance** that SpaceX would meet this deadline, otherwise they would wait another two years to try again.

मस्क ने अनुमान लगाया कि SpaceX के इस लक्ष्य को पूरा करने की संभावना **50%** है, अन्यथा वे दो साल और इंतजार करेंगे।

- The first flight to Mars will carry a **simulated crew** of one or more **Tesla-built humanoid robots named Optimus**, with the first human crews arriving on the second or third missions.

मंगल की पहली उड़ान में Tesla के बनाए हुए मानवाकृति रोबोट **Optimus** की एक **नकली टीम** होगी, और मानव दल दूसरे या तीसरे मिशन पर जाएंगे।

- Musk envisions launching **1,000 to 2,000 Starships every two years to quickly establish a self-sustaining human settlement on Mars**.

मस्क ने हर दो साल में **1,000 से 2,000 Starship** लॉन्च करने की कल्पना की है ताकि मंगल पर जल्दी से एक आत्मनिर्भर मानव बस्ती स्थापित की जा सके।

- **NASA plans to send humans back to the Moon aboard Starship around 2027, more than 50 years after the last Apollo missions, as a stepping stone towards Mars missions in the 2030s.**

NASA की योजना है कि वह **2027** के आसपास Starship के जरिए चंद्रमा पर मनुष्यों को वापस भेजेगा, जो कि Apollo मिशनों के 50 साल बाद होगा, और यह 2030 के दशक में मंगल मिशनों के लिए एक कदम होगा।

- Musk had earlier aimed to send an uncrewed SpaceX vehicle to Mars by **2018** and a crewed mission by **2024**.

मस्क पहले **2018** तक बिना मानव दल वाली SpaceX यान भेजने और **2024** तक मानव दल भेजने का लक्ष्य रखते थे।

- SpaceX was scheduled to livestream from its Texas launch site on **May 27** night after the ninth Starship test flight, but the webcast was canceled after Starship lost control and exploded about 30 minutes after launch.

SpaceX ने **27 मई** की रात टेक्सास लॉन्च साइट से लाइवस्ट्रीम करने का कार्यक्रम बनाया था, लेकिन Starship नियंत्रण खोने के बाद लॉन्च के लगभग 30 मिनट में फट गया, इसलिए लाइवस्ट्रीम रद्द कर दी गई।

- Two previous test flights in January and March ended dramatically with the spacecraft breaking apart shortly after liftoff.

जनवरी और मार्च में दो पिछले परीक्षण उड़ानें भी इसी तरह फटने के कारण विफल हो गईं।



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- Musk said the **latest failure generated** “a lot of good data to review” and promised a faster launch schedule for upcoming test flights.

मस्क ने कहा कि नवीनतम असफलता से “बहुत सारे अच्छे डेटा” मिले हैं, और उन्होंने आने वाली परीक्षण उड़ानों के लिए तेज़ लॉन्च गति का वादा किया।

GS Paper III: Internal Security

## Wrong call

Assam government's decision to arm civilians goes against law enforcement

**T**he decision by the Bharatiya Janata Party-led Assam government to issue arms licences to “eligible” indigenous communities in remote and vulnerable areas in the State is fraught with danger. The State government seems to suggest that indigenous communities living in the border areas abutting Bangladesh are vulnerable and that armed licences would be a deterrent and improve their personal safety and confidence. Chief Minister Himanta Biswa Sarma has also insisted that these grants would not be for people near inter-State borders in Assam. But these caveats still do not take away from the fact that arming specific civilian groups is liable to be rampantly misused for acts such as vigilantism and inter-community rivalry, as the lines between law enforcement – which carries legal authority and has a monopoly over armed instruments – and private citizens are blurred. In a State that has been beset with insurgent violence and where the threat from groups such as the ULFA (Independent) remains, introducing more arms into civilian hands risks propagating further violence and arms proliferation rather than ensuring enhanced security. Instead of arming civilians, ostensibly for self-defence – a move akin to abdicating its core responsibility – the State government has the clear alternative of enhancing its own law enforcement and security presence in these “vulnerable areas”.

It is well understood that in modern states, the monopoly over instruments of violence will remain with the government and its law enforcement agencies. In India, arms licences are issued in a restricted manner as a delegated and a limited right to self-preservation to select individuals through a stringent licensing process under the Arms Act, 1959 and the Arms Rules, 2016. These rules under the law preclude the provision of such licences to larger, identified groups – where identification itself could be fraught with the risk of conflicts – as they not only present administrative challenges but also make it difficult for the government to license, monitor and recover firearms as the law requires it to. Arming civilian groups, even with an intention to do so with some stringent implementation, runs the risks of having these weapons entering grey markets and falling into the wrong hands, besides designating those groups with an authority that could backfire on the state. This was evident when security forces in Chhattisgarh arming civilian groups for protection against the Maoist threat – in the Salwa Judum campaign in the late 2000s – led to severe human rights violations and lawlessness, before the Supreme Court of India intervened to deem the policy to be illegal. Considering these problems, Assam must reverse its decision.

## Wrong Call

### ग़लत फैसला

Assam government's decision to arm civilians goes against law enforcement

असम सरकार का नागरिकों को हथियार देने का निर्णय क़ानून प्रवर्तन के खिलाफ़ है

- The Bharatiya Janata Party-led Assam government has decided to **issue arms licences to “eligible” indigenous communities in remote and vulnerable areas** of the State.

भारतीय जनता पार्टी शासित असम सरकार ने राज्य के दूरदराज और संवेदनशील क्षेत्रों में “योग्य” स्वदेशी समुदायों को हथियार लाइसेंस देने का निर्णय लिया है।

- The government claims that **border areas near Bangladesh** are vulnerable and **arming locals** will act as a **deterrent**, improving their **safety and confidence**.

सरकार का कहना है कि बांग्लादेश सीमा से सटे क्षेत्रों में लोग असुरक्षित हैं और स्थानीय लोगों को हथियार देने से उनकी सुरक्षा और आत्मविश्वास बढ़ेगा।

- Chief Minister Himanta Biswa Sarma clarified that **this scheme will not apply to inter-State border regions**.

मुख्यमंत्री हिमंत बिस्व सरमा ने स्पष्ट किया कि यह योजना राज्य के अंतर-सीमावर्ती क्षेत्रों पर लागू नहीं होगी।

- Despite caveats, **arming specific civilian groups** risks **vigilantism and inter-community conflict, as it blurs the line between civilians and law enforcement agencies**.

इन शर्तों के बावजूद, चुनिंदा नागरिक समूहों को हथियार देना निजी न्याय व्यवस्था और सामुदायिक संघर्षों को जन्म दे सकता है, क्योंकि इससे नागरिकों और क़ानून प्रवर्तन एजेंसियों के बीच की सीमा धुंधली हो जाती है।

- Assam has a history of **insurgency** and threats from groups such as **ULFA (Independent)**, and this decision could lead to **further violence and arms proliferation**.

असम में उग्रवाद और ULFA (इंडिपेंडेंट) जैसे समूहों से खतरे का इतिहास रहा है, और यह निर्णय हिंसा और हथियारों के प्रसार को बढ़ावा दे सकता है।

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- The State should focus on **strengthening its security forces** in vulnerable areas rather than **arming civilians** for self-defence.  
राज्य सरकार को नागरिकों को आत्मरक्षा के लिए हथियार देने के बजाय **संवेदनशील क्षेत्रों में अपनी सुरक्षा व्यवस्था मजबूत** करनी चाहिए।
- In modern governance, the **monopoly over weapons** must remain with the **government and its law enforcement agencies**.  
आधुनिक शासन में, **हथियारों पर एकाधिकार** केवल **सरकार और उसकी क़ानून प्रवर्तन एजेंसियों** के पास होना चाहिए।
- In India, arms licences are granted as a **limited right** to individuals under the **Arms Act, 1959 and Arms Rules, 2016**, through a **strict process**.  
भारत में, **आर्म्स एक्ट 1959 और आर्म्स रूल्स 2016** के तहत व्यक्तियों को **सख्त प्रक्रिया** के माध्यम से **सीमित अधिकार** के रूप में हथियार लाइसेंस दिए जाते हैं।
- The **law does not allow** such licences to be given to **large, identified groups**, due to risks of **conflict, poor monitoring, and retrieval issues**.  
क़ानून के अनुसार, **बड़े या चिन्हित समूहों** को हथियार लाइसेंस देना **संघर्ष, निगरानी में कठिनाई और हथियारों की वापसी** जैसी समस्याओं का कारण बन सकता है।
- Even with strict enforcement, there is a risk that **weapons may enter grey markets or fall into wrong hands, undermining state authority**.  
कड़े अमल के बावजूद, **हथियारों का ग्रे मार्केट में जाना या ग़लत हाथों में पड़ना** संभव है, जिससे राज्य की शक्ति को खतरा हो सकता है।
- A similar instance occurred in **Chhattisgarh** during the **Salwa Judum campaign** in the **late 2000s**, which led to **human rights violations** before the **Supreme Court** declared it **illegal**.  
ऐसा ही मामला **2000 के दशक के अंत में छत्तीसगढ़ में सलवा जुडूम अभियान** के दौरान हुआ, जिसमें **मानवाधिकार हनन** हुआ और बाद में **सुप्रीम कोर्ट** ने इसे **गैरक़ानूनी** करार दिया।
- In light of these dangers, the **Assam government must reverse its decision**.  
इन खतरों को देखते हुए, **असम सरकार को अपना निर्णय वापस लेना चाहिए**।



# Regulating India's virtual digital assets revolution

GS Paper III: Digital Assets

India continues to lead in grassroots crypto adoption, for the second consecutive year in the 'Geography of Crypto' report by Chainalysis (2024). A National Association of Software and Service Companies (NASSCOM) report finds that Indian retail investors poured \$6.6 billion into crypto assets and predicts the industry could create over eight lakh jobs by 2030. India also boasts one of the largest and fastest-growing web3 developer cohorts.

This vibrancy may seem surprising, given the rocky journey of crypto, known as 'Virtual Digital Assets' (VDA), in India, within the domestic regulatory and policy landscape. In May 2025, the Supreme Court of India questioned the absence of comprehensive and clear crypto regulation in India, with a remark, "Banning may be shutting your eyes to ground reality". This observation highlights the dissonance between VDA reality and VDA policy which has created significant challenges for regulators and market players.

## Navigating India's VDA regulatory gaps

India, as a country of strict capital controls and tightly regulated payment systems, has found it difficult to reconcile these frameworks with the decentralised nature of VDAs. The Reserve Bank of India (RBI), as the domestic regulator of monetary policy, began expressing concerns about the potential threats of crypto as early as 2013, highlighting the risks associated with their lack of authorisation from any central bank or monetary authority. Despite this warning, the market saw unassailed growth in India, leading the RBI to issue a second circular in 2018, barring financial institutions from dealing with VDA-related entities. This restriction proved short-lived, with the Court overturning the circular in 2020.

The government then turned to prohibitive taxation policies as a stop-gap measure while appropriate regulations were formulated. In 2022, India implemented two key tax policies for



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There is a wide gap between reality and policy, creating challenges for regulators and market players

VDAs under the Income Tax Act: a 1% tax deducted at source (TDS) on VDA transactions exceeding ₹10,000 under Section 194S and a 30% capital gains tax under Section 115BBH which disallows loss offsetting. Although these measures were designed to enhance transparency and curb speculation, their effectiveness has been limited.

Estimates by various industry reports and think tanks show that between July 2022 and December 2023, Indians traded over ₹1.03 trillion worth of VDAs on non-compliant platforms, with only 9% of the estimated ₹1.12 trillion in VDAs held on domestic exchanges. Offshore trading resulted in a loss of ₹2,488 crore in uncollected VDA tax revenue for India. Between December 2023 and October 2024, Indians traded over ₹2.63 trillion on offshore platforms. The cumulative uncollected TDS from offshore exchanges since July 2022 is estimated to exceed ₹60 billion, with the nine blocked exchanges accounting for over 60% of this trading volume. Efforts to block access to non-compliant platforms, such as URL blocking, had limited success. Trade volumes on blocked exchanges rebounded after temporary declines, and web traffic to these platforms rose by 57%. Users continued to bypass restrictions using virtual private networks (VPN), mirror platforms or servers, and by migrating to other non-compliant exchanges.

## Role of VASPs

Guidelines by global standard-setting bodies, such as the International Monetary Fund, Financial Stability Board, and the Financial Action Task Force, converge in favour of comprehensive and risk-based regulation that is harmonised with international standards (a process that is underway). However, these frameworks and regulations rely on domestic, compliant intermediaries or Virtual Asset Service Providers (VASP) that act as the bridge and eyes for regulators. These intermediaries facilitate the

alignment of the VDA industry with existing laws and enforcement of policies, and enhance visibility over the ecosystem, while providing crucial inputs concerning on-the-ground issues.

In contrast, India's existing policy regime, which inadvertently pushes VDA users to offshore, non-compliant platforms, erodes the country's ability to mitigate the risks presented by VDAs, as well as tax revenues that may have otherwise been collected.

In comparison, Indian VASP platforms are sharpening their teeth and maturing rapidly, having shown a willingness to comply with regulations and act in good faith. For example, their collaboration with the Financial Intelligence Unit-India has been instrumental in strengthening anti-money laundering and counter-terror financing controls, earning positive feedback from the Financial Action Task Force (FATF). The aftermath of the devastating hack in 2024, which wiped out \$230 million, further showcased proactive measures by Indian exchanges. Many stepped up efforts such as enhancing cyber security measures, setting up dedicated insurance funds in case of future thefts, and uniting to develop and enforce industry-wide cybersecurity guidelines.

## Need for a framework

These possibilities signal the critical role played by VASPs towards a safer digital asset ecosystem. Combined with their contributions to national value creation and economic growth, these platforms present a more viable and constructive channel for funds to flow through under the oversight of Indian regulators. To move beyond the current policy stasis – where tax is levied without meaningful regulation – a balanced, pragmatic and future-proof regulatory framework is necessary. India must take decisive action to create the comprehensive legislation that the crypto industry requires while mitigating associated risks.

## Regulating India's Virtual Digital Assets Revolution

### भारत में वर्चुअल डिजिटल संपत्ति क्रांति को नियंत्रित करना

India continues to lead in grassroots crypto adoption for the second consecutive year in the 'Geography of Crypto' report by Chainalysis (2024).

Chainalysis की 2024 की रिपोर्ट 'Geography of Crypto' में भारत लगातार दूसरे वर्ष जमीनी स्तर पर क्रिप्टो को अपनाने में अग्रणी बना हुआ है।

- A **NASSCOM** report finds that Indian retail investors poured **\$6.6 billion** into crypto assets and predicts the industry could create **over eight lakh jobs** by 2030.



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NASSCOM की एक रिपोर्ट के अनुसार, भारतीय रिटेल निवेशकों ने क्रिप्टो में \$6.6 अरब का निवेश किया और यह उद्योग 2030 तक आठ लाख से अधिक नौकरियां पैदा कर सकता है।

- India also has one of the **largest and fastest-growing web3 developer** communities in the world.

भारत में विश्व की सबसे बड़ी और सबसे तेजी से बढ़ती वेब3 डेवलपर समुदायों में से एक है।

- This is notable given crypto's uncertain journey within India's regulatory and policy environment.

यह उल्लेखनीय है क्योंकि भारत में क्रिप्टो की यात्रा नीतिगत और नियामक स्तर पर अनिश्चित रही है।

- In **May 2025**, the Supreme Court of India questioned the **lack of a comprehensive crypto regulation**, stating that **banning may amount to "shutting your eyes to ground reality"**.

मई 2025 में भारत के सुप्रीम कोर्ट ने व्यापक क्रिप्टो नियमन की कमी पर सवाल उठाया और कहा कि प्रतिबंध लगाना "जमीनी सच्चाई से आंखें मूंदने" जैसा होगा।

- This highlights a **disconnect between VDA reality and VDA policy**, causing problems for regulators and market players.

यह VDA की वास्तविकता और नीति के बीच के अंतर को दर्शाता है, जिससे नियामकों और बाजार भागीदारों को कठिनाइयों का सामना करना पड़ रहा है।

- India has **strict capital controls** and tightly regulated payment systems, making it hard to align with the **decentralised nature of VDAs**.

भारत में कड़े पूंजी नियंत्रण और सख्त भुगतान प्रणालियाँ हैं, जिससे वर्चुअल डिजिटल संपत्तियों की विकेंद्रीकृत प्रकृति के साथ सामंजस्य बैठाना कठिन होता है।

- The RBI raised concerns as early as **2013**, warning about the risks of crypto assets not being authorized by any **central authority**.

RBI ने 2013 में ही चेतावनी दी थी कि क्रिप्टो परिसंपत्तियाँ किसी केंद्रीय प्राधिकरण द्वारा अनुमोदित नहीं हैं, जिससे जोखिम बढ़ते हैं।

- In **2018**, the RBI issued a circular banning financial institutions from dealing with VDA-related entities.

2018 में, RBI ने एक परिपत्र जारी कर वित्तीय संस्थाओं को VDA से जुड़ी संस्थाओं से लेन-देन करने से प्रतिबंधित कर दिया।

- This circular was overturned by the Supreme Court in **2020**.

यह परिपत्र 2020 में सुप्रीम कोर्ट द्वारा रद्द कर दिया गया।

- The government introduced **prohibitive taxation policies** as a temporary measure while proper regulations were being framed.

सरकार ने उपयुक्त नियमों के अभाव में अस्थायी रूप से प्रतिबंधात्मक कर नीति अपनाई।

- In **2022**, India implemented two major VDA tax rules:

2022 में, भारत ने VDA पर दो मुख्य कर नीतियाँ लागू कीं:

- **1% TDS on transactions above ₹10,000 under Section 194S.**

धारा 194S के तहत ₹10,000 से अधिक के लेनदेन पर 1% TDS।



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- **30% capital gains tax under Section 115BBH**, without allowing loss offsetting.  
धारा 115BBH के तहत 30% पूंजी लाभ कर, जिसमें हानि की भरपाई की अनुमति नहीं है।
- These **taxes were meant to increase transparency and reduce speculation**, but their impact has been limited.  
इन करों का उद्देश्य पारदर्शिता बढ़ाना और सट्टेबाज़ी को कम करना था, लेकिन इसका प्रभाव सीमित रहा।
- From **July 2022 to December 2023**, Indians traded over **₹1.03 trillion** in VDAs on **non-compliant platforms**, with only **9%** held on domestic exchanges.  
जुलाई 2022 से दिसंबर 2023 के बीच, भारतीयों ने ₹1.03 ट्रिलियन से अधिक का VDA व्यापार गैर-अनुपालन प्लेटफॉर्मों पर किया, जबकि केवल 9% ही घरेलू एक्सचेंजों पर रखा गया।
- **India lost about ₹2,488 crore in uncollected tax revenue due to offshore trading.**  
ऑफ़शोर ट्रेडिंग के कारण भारत को ₹2,488 करोड़ का VDA कर राजस्व नुकसान हुआ।
- From **December 2023 to October 2024**, **Indians traded more than ₹2.63 trillion on offshore platforms.**  
दिसंबर 2023 से अक्टूबर 2024 के बीच भारतीयों ने ₹2.63 ट्रिलियन से अधिक का व्यापार ऑफ़शोर प्लेटफॉर्मों पर किया।
- The total uncollected **TDS** from offshore exchanges since **July 2022** is over **₹60 billion.**  
जुलाई 2022 से अब तक ऑफ़शोर एक्सचेंजों से अनसंग्रहीत TDS ₹60 अरब से अधिक हो चुका है।
- Over **60%** of this trading occurred on **nine blocked exchanges.**  
इस व्यापार का 60% से अधिक हिस्सा नौ अवरुद्ध एक्सचेंजों पर हुआ।
- Attempts to block non-compliant platforms, like **URL blocking**, had **limited success.**  
**URL ब्लॉकिंग** जैसे उपायों से गैर-अनुपालन प्लेटफॉर्मों को रोकने के प्रयासों में सीमित सफलता मिली।
- Trade volume on blocked platforms rebounded after temporary declines, and web traffic increased by **57%**.  
अस्थायी गिरावट के बाद ब्लॉक किए गए प्लेटफॉर्मों पर व्यापार फिर बढ़ गया, और उनकी वेब ट्रैफिक 57% बढ़ गई।
- Users bypassed restrictions using **VPNs, mirror platforms, or by shifting to other non-compliant exchanges.**  
उपयोगकर्ताओं ने **VPN, मिरर प्लेटफॉर्म, या अन्य गैर-अनुपालन एक्सचेंजों** पर जाकर प्रतिबंधों को बायपास कर लिया।
- Guidelines by global standard-setting bodies, such as the **International Monetary Fund, Financial Stability Board, and the Financial Action Task Force**, support comprehensive and **risk-based regulation** that aligns with **international standards.**  
अंतरराष्ट्रीय मुद्रा कोष, वित्तीय स्थिरता बोर्ड, और फाइनेंशियल एक्शन टास्क फोर्स जैसे वैश्विक मानक तय करने वाले निकाय जोखिम आधारित और व्यापक विनियमन का समर्थन करते हैं जो अंतरराष्ट्रीय मानकों के अनुरूप हो।
- However, these regulations depend on **domestic, compliant intermediaries** or **Virtual Asset Service Providers (VASPs)** who act as the bridge and monitoring arm for regulators.

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हालांकि, ये नियम घरेलू, अनुपालक मध्यस्थों या वर्चुअल एसेट सर्विस प्रोवाइडर्स (VASPs) पर निर्भर करते हैं, जो नियामकों के लिए पुल और निगरानी की भूमिका निभाते हैं।

- These intermediaries help align the **VDA industry** with laws, enforce policies, and improve visibility while also providing important ground-level insights.

ये मध्यस्थ **VDA उद्योग** को कानूनों के अनुरूप बनाने, नीतियों को लागू करने और पारदर्शिता बढ़ाने में मदद करते हैं, साथ ही **जमीनी स्तर की जानकारी** भी प्रदान करते हैं।

- In contrast, India's current policy regime inadvertently drives VDA users to **offshore, non-compliant platforms**, reducing India's capacity to manage **risks** and collect **tax revenue**.

इसके विपरीत, भारत की मौजूदा नीति अनजाने में VDA उपयोगकर्ताओं को **विदेशी, गैर-अनुपालक प्लेटफॉर्म** की ओर धकेलती है, जिससे भारत की **जोखिम प्रबंधन** और **कर राजस्व संग्रह** की क्षमता घटती है।

## Progress of Indian VASPs

### भारतीय VASP का विकास

- Indian VASPs are maturing and showing readiness to comply with rules and act responsibly.  
भारतीय VASP परिपक्व हो रहे हैं और नियमों का पालन करने तथा जिम्मेदारी से कार्य करने की इच्छा दिखा रहे हैं।
- Their cooperation with the **Financial Intelligence Unit-India** has helped enhance **anti-money laundering and counter-terror financing** measures.  
**फाइनेंशियल इंटेलिजेंस यूनिट-इंडिया** के साथ उनका सहयोग **मनी लॉन्ड्रिंग रोकथाम** और **आतंकी वित्तपोषण विरोधी** उपायों को मजबूत बनाने में सहायक रहा है।
- This effort has received positive feedback from the **Financial Action Task Force (FATF)**.  
इस प्रयास को **फाइनेंशियल एक्शन टास्क फोर्स (FATF)** से सकारात्मक प्रतिक्रिया मिली है।
- After the major **hack in 2024** that caused a loss of **\$230 million**, Indian exchanges took proactive steps.  
**2024 में हुए बड़े हैक**, जिसमें **\$230 मिलियन** की क्षति हुई, के बाद भारतीय एक्सचेंजों ने सक्रिय कदम उठाए।
- These included stronger **cybersecurity measures**, creation of **insurance funds**, and development of **industry-wide cybersecurity guidelines**.  
इनमें मजबूत **साइबर सुरक्षा उपाय**, **बीमा कोष** की स्थापना और **उद्योग-स्तरीय साइबर सुरक्षा दिशानिर्देशों** का विकास शामिल था।
- These developments highlight the essential role of **VASPs** in building a **secure digital asset ecosystem**.  
ये घटनाक्रम **VASPs** की भूमिका को एक **सुरक्षित डिजिटल एसेट इकोसिस्टम** के निर्माण में महत्वपूर्ण बनाते हैं।



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- VASPs also contribute to **national economic growth** and offer a reliable channel for **regulated fund flow** under Indian oversight.  
VASPs **राष्ट्रीय आर्थिक वृद्धि** में योगदान देते हैं और भारतीय निगरानी में **विनियमित फंड प्रवाह** के लिए एक विश्वसनीय माध्यम बनाते हैं।
- Currently, **taxes** are levied on VDAs but there is no **meaningful regulation**.  
वर्तमान में **VDAs पर कर** तो लगाए जाते हैं लेकिन कोई **व्यवस्थित विनियमन** मौजूद नहीं है।
- A **balanced, practical, and future-proof regulatory framework** is urgently needed to address this gap.  
इस कमी को दूर करने के लिए **संतुलित, व्यावहारिक और भविष्य-उन्मुख नियामक ढांचे** की तत्काल आवश्यकता है।
- India must act decisively to create a **comprehensive legislation** for the **crypto industry** while addressing its risks.  
भारत को **क्रिप्टो उद्योग** के लिए **व्यापक कानून** बनाने के लिए निर्णायक कदम उठाने चाहिए, साथ ही इससे जुड़े **जोखिमों** को भी ध्यान में रखना चाहिए।

PATRIOTIC IAS



# Whose mountain is it, anyway?

GS Paper III: Environment

**O**n May 18, five people from the National Institute of Mountaineering and Adventure Sports (NIMAS) scaled Mt Khangchendzonga from the Nepal side, prompting expressions of concern and protest by civil society groups and Sikkim Chief Minister Prem Singh Tamang. Sikkim's native population holds the mountain sacred and the State government disallows attempts to climb it or scale its peak from the Indian side. One side of Mt Khangchendzonga faces Nepal, a country that hasn't instituted a similar ban and which the NIMAS team took advantage of.



**Vasudevan Mukunth**

## Tensions over mountains

There has been a resurgence of the assertion of spiritual beliefs over mountains of late. Mountains are important sources of water, which is increasingly becoming a strategic resource. They straddle geo-dynamic features we need to know to understand the land we live on. But in a world grappling with the effects of climate change, mountain ecosystems worldwide also rank among the most vulnerable. This renders the stewardship provided by indigenous communities important, especially in the form of indigenous knowledge that allowed people to coexist sustainably with their environs for centuries. Of course, there are other reasons to respect indigenous communities' beliefs, including building resilient societies and redressing historical injustice.

In parallel, there is still a need to understand mountains from scientific and military points of view, and physical access often yields the best data. The resulting tensions have become more pronounced in the last two decades or so. As the recent incident illustrates, the key has always been stakeholder involvement and scientists and military personnel being okay with hearing the word 'no'.

This is why work on the

There has been a resurgence of the assertion of spiritual beliefs over mountains of late

Thirty-Meter Telescope (of which India is a government-level member) was stalled from 2014 after the Kānaka Maoli community protested its construction on their sacred Mauna Kea. Native Hawaiians have also opposed the U.S. Space Forces AMOS-STAR project on the Haleakalā shield volcano on similar grounds. Atacameño communities in Chile have warned of "spiritual" loss over the construction of telescopes in Cerro Armazones and Cerro Paranal.

In many instances, governments presume scientific and defence needs should override indigenous rights. Surveys to assess eco-spiritual rights are often conducted after indigenous groups have mounted large protests, and not before the project is commissioned. The India-based Neutrino Observatory (INO) faced similar opposition over locals' inability to access a temple located near the planned project site thanks to the presence of police personnel. While the INO scientists have said the police shouldn't have been present, much less denying access to the area, the incident only illustrates the sort of heavy-handedness large and expensive projects open the door to while denying indigenous communities their rights.

## Sharper legal instruments

Fortunately, however, thanks to the initiative of civil society groups led by youth, the election of indigenous individuals to government positions, technological advances, and the pressures of climate adaptation and sustainability, the legal instruments available to assert indigenous rights are becoming sharper. The UN principle of 'free prior and informed consent' of indigenous peoples is bolstered by its Declaration on the Rights of Indigenous Peoples (UNDRIP) and convention 169 of the International Labour Organisation. Sikkim's notifications consecrating Mt Khangchendzonga were under the

Places of Worship Act, 1991.

Overall, it is becoming cheaper both in monetary and extra-monetary ways (including the risk of reputational harm) to consult first than to litigate later. Heavy-handedness still prevails but there is progress, and governments need to be part of it, including in the arena of military action. As Article 30 of the UNDRIP says, "States shall undertake effective consultations with the indigenous peoples concerned... prior to using their lands... for military activities."

Consultative actions that account for political variables can also ensure neither indigenous groups nor governments resort to heavy-handedness of their own. For example, a volcanology programme in 2014 involved the governments of North Korea, China, and the U.K. to study the revered Paektu mountain on the North Korea-China border to understand when it might erupt next. On the flip side, after protests in Bhutan over foreign expeditions to the Gangkhar Puensum peak, the government banned attempts to climb more than 6,000 m above sea level in 1994 and altogether banned mountaineering in 2003.

NIMAS is an autonomous institute under India's Ministry of Defence. The NIMAS team's endeavour on May 18 was part of the Indian Army's 'Har Shikhar Tiranga' campaign to plant the Indian flag on the highest point of each State. Even if this wasn't explicit military action, its purpose was to stoke national pride and build support for India's war rhetoric. By sidestepping local support for its ascent and planting the Indian flag on the mountain from the Nepal side, the NIMAS team has cheapened the struggles of native peoples to lower the cost of consulting them. If it had consulted them and they had refused access, the NIMAS team could still have achieved its goal by planting the flag at another spot. National integrity is also important for national security.

## Whose Mountain Is It, Anyway?

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## किसका पहाड़ है, आखिरकार?

### NIMAS Ascent and Sikkim's Protest

#### NIMAS का आरोहण और सिक्किम का विरोध

- On **May 18, 2025**, a team from the **National Institute of Mountaineering and Adventure Sports (NIMAS)**, led by **Colonel Ranveer Singh Jamwal**, ascended **Mt. Khangchendzonga** from the **Nepal side** as part of the '**Har Shikhar Tiranga**' campaign.  
18 मई 2025 को कर्नल रणवीर सिंह जम्वाल के नेतृत्व में नेशनल इंस्टीट्यूट ऑफ माउंटेनियरिंग एंड एडवेंचर स्पोर्ट्स (NIMAS) की एक टीम ने 'हर शिखर तिरंगा' अभियान के तहत नेपाल की ओर से माउंट खांगचेंडजोंगा पर चढ़ाई की।
- This ascent sparked **protests** from **civil society groups** and **Sikkim Chief Minister Prem Singh Tamang**, as the mountain is considered **sacred** by the **indigenous communities** of Sikkim.  
इस चढ़ाई ने सिविल सोसाइटी समूहों और सिक्किम के मुख्यमंत्री प्रेम सिंह तमांग की ओर से विरोध को जन्म दिया, क्योंकि यह पर्वत सिक्किम की आदिवासी समुदायों द्वारा पवित्र माना जाता है।

### Legal Protections and Cultural Significance

#### कानूनी संरक्षण और सांस्कृतिक महत्व

- In **2001**, the **Government of Sikkim** banned expeditions to **Mt. Khangchendzonga** under the **Places of Worship (Special Provisions) Act, 1991**, recognizing its **spiritual significance**.  
2001 में, सिक्किम सरकार ने पूजा स्थलों (विशेष प्रावधान) अधिनियम, 1991 के तहत माउंट खांगचेंडजोंगा पर अभियानों पर प्रतिबंध लगा दिया, इसके आध्यात्मिक महत्व को मान्यता देते हुए।
- The mountain is revered as a **sacred deity** by the **Bhutia and Lepcha** communities, and climbing it is seen as a **violation** of their **religious beliefs**.  
यह पर्वत भूटिया और लेपचा समुदायों द्वारा एक पवित्र देवता के रूप में पूजनीय है, और इस पर चढ़ाई को उनके धार्मिक विश्वासों का उल्लंघन माना जाता है।

### International Standards and Indigenous Rights

#### अंतरराष्ट्रीय मानक और आदिवासी अधिकार

- Article 30** of the **United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)** states that **military activities** shall not take place in the lands or territories of **indigenous peoples** unless justified by a relevant **public interest** or freely agreed with the indigenous peoples concerned.



संयुक्त राष्ट्र के आदिवासी लोगों के अधिकारों की घोषणा (UNDRIP) के अनुच्छेद 30 में कहा गया है कि सैन्य गतिविधियाँ आदिवासी लोगों की भूमि या क्षेत्रों में तब तक नहीं होनी चाहिए जब तक कि यह किसी प्रासंगिक सार्वजनिक हित द्वारा उचित न ठहराई जाए या संबंधित आदिवासी लोगों के साथ स्वतंत्र रूप से सहमति प्राप्त न हो।

- The '**Har Shikhar Tiranga**' campaign, though not an explicit military operation, is associated with the **Indian Army** and aims to plant the national flag on the highest point of each state, which can be seen as a form of **military symbolism**.

'हर शिखर तिरंगा' अभियान, हालांकि स्पष्ट रूप से सैन्य अभियान नहीं है, लेकिन यह **भारतीय सेना** से जुड़ा है और प्रत्येक राज्य के उच्चतम बिंदु पर राष्ट्रीय ध्वज फहराने का लक्ष्य रखता है, जिसे **सैन्य प्रतीकवाद** के रूप में देखा जा सकता है।

## Global Examples of Indigenous Protests

### आदिवासी विरोधों के वैश्विक उदाहरण

- In **Hawaii**, the construction of the **Thirty-Meter Telescope on Mauna Kea**, a mountain sacred to **Native Hawaiians**, faced significant opposition, leading to delays and legal challenges.  
हवाई में, माउना कीआ पर **थर्टी-मीटर टेलीस्कोप** के निर्माण, जो **नेटिव हवाईयन** के लिए पवित्र पर्वत है, को महत्वपूर्ण विरोध का सामना करना पड़ा, जिससे देरी और कानूनी चुनौतियाँ उत्पन्न हुईं।
- Similarly, in **Chile**, the **Atacameño communities** have protested against the construction of telescopes on **Cerro Armazones** and **Cerro Paranal**, citing **spiritual loss**.  
इसी तरह, **चिली** में, **अटकामेनो** समुदायों ने **सेरो अरमाज़ोनेस** और **सेरो परानाल** पर टेलीस्कोप के निर्माण के खिलाफ **आध्यात्मिक हानि** का हवाला देते हुए विरोध किया है।

## Call for Inclusive Decision-Making

### समावेशी निर्णय-निर्माण की मांग

- The **Sikkim Chief Minister** has urged the **Central Government** to engage in **diplomatic talks** with **Nepal** to prevent future ascents of **Mt. Khangchendzonga**, **emphasizing the need to respect the cultural and spiritual sentiments** of the local communities.

**सिक्किम** के **मुख्यमंत्री** ने **केंद्र सरकार** से **नेपाल** के साथ **राजनयिक वार्ता** में शामिल होने का आग्रह किया है ताकि **माउंट खांगचेंडजोंगा** की भविष्य की चढ़ाइयों को रोका जा सके, स्थानीय समुदायों की **सांस्कृतिक और आध्यात्मिक भावनाओं** का सम्मान करने की आवश्यकता पर जोर देते हुए।

- There is a growing recognition that **consulting indigenous communities** before undertaking activities on their sacred lands is not only a matter of **respect** but also essential for **sustainable and peaceful development**.



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- यह मान्यता बढ़ रही है कि आदिवासी समुदायों से परामर्श करना, उनके पवित्र भूमि पर गतिविधियाँ शुरू करने से पहले, न केवल सम्मान का विषय है बल्कि स्थायी और शांतिपूर्ण विकास के लिए भी आवश्यक है।
- The ascent of **Mt. Khangchendzonga** by the **NIMAS** team has highlighted the **tensions** between **national initiatives** and **indigenous rights**. It underscores the importance of **inclusive decision-making** that respects the **cultural and spiritual values** of indigenous communities.
- **NIMAS** टीम द्वारा माउंट खांगचेंडजोंगा की चढ़ाई ने राष्ट्रीय पहलों और आदिवासी अधिकारों के बीच के तनावों को उजागर किया है। यह समावेशी निर्णय-निर्माण के महत्व को रेखांकित करता है जो आदिवासी समुदायों के सांस्कृतिक और आध्यात्मिक मूल्यों का सम्मान करता है।
- Moving forward, it is imperative for governments and organizations to engage in **meaningful consultations** with indigenous peoples, ensuring that their **rights and beliefs** are upheld in any development or symbolic activities.  
आगे बढ़ते हुए, सरकारों और संगठनों के लिए यह आवश्यक है कि वे आदिवासी लोगों के साथ सार्थक परामर्श में शामिल हों, यह सुनिश्चित करते हुए कि किसी भी विकास या प्रतीकात्मक गतिविधियों में उनके अधिकारों और विश्वासों का पालन किया जाए।

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# India's rise to 4th largest economy belies per capita reality

Comparisons based solely on absolute GDP offer limited insight into the lived realities of people

GS Paper III: Economy

**DATA POINT**

**Nitika Francis**  
**Vignesh Radhakrishnan**

The International Monetary Fund (IMF) recently projected that India will edge past Japan to become the world's fourth largest economy in 2025. While this marks a notable milestone, comparisons based solely on absolute Gross Domestic Product (GDP) offer limited insight into the lived realities of people.

Absolute GDP figures are useful for understanding the size of an economy, but they do not capture how wealth is distributed, how developed a country is, or how its citizens are faring. They mask disparities in population size, cost of living, and income inequality. A country may have a large economy overall, but that doesn't necessarily translate into prosperity or improved living standards for its people.

For instance, as **Chart 1A** shows, India's absolute GDP (in \$ billion) is estimated to have risen from \$468.4 billion in 2000 to \$4,187 billion in 2025, narrowly surpassing Japan's figures in the process. However, as **Chart 1B** shows, India's GDP per capita is 12 times lower than Japan's in 2025.

To drive home the point, let us add Poland to the comparison – a country often cited for its quick transition from a lower middle-income to a high-income economy. As seen in **Chart 1A**, Poland's total GDP is around four times smaller than India's, but as **Chart 1B** shows, its GDP per capita is nearly nine times higher.

While economic growth is an important marker of a country's progress, it is equally vital to assess the strides made in social, educational, health, and democratic indicators, as advancements in these areas offer a more meaningful measure of true prosperity. The following paragraphs present indicators related to these dimensions,

comparing India, Poland, and Japan across two time periods – the latest available data and figures from roughly two decades ago.

First, consider the nature of employment. As shown in **Charts 2A, 2B, and 2C**, as of 2023, nearly 45% of India's workforce was still employed in agriculture. In contrast, the share in both Poland and Japan had fallen below 10%, with a corresponding rise in employment in the industrial and services sectors.

On the regular employment front, the share of wage and salaried workers – those with formal employment contracts – was just 23.9% in India in 2023, compared to 91% in Japan and 80.1% in Poland (**Chart 3**).

The gross enrolment rate in college-level education, after completion of secondary school, was 32.7% in India in 2022, compared to close to 65% and 75% in Japan and Poland, respectively (**Chart 4**).

On the health front, the life expectancy of a person was 72 years for an average Indian in 2023, compared to 84 years in Japan and 78.5 years in Poland (**Chart 5**).

Access to adequate healthcare is also reflected in a country's Infant Mortality Rate (IMR), or the number of deaths per 1,000 live births of children under one year of age. While the IMR of all the mentioned countries halved between 2000 and 2023, India's IMR remains at 24.5, while Japan and Poland both record less than five such deaths per 1,000 births.

Put together, these reflect in the measure of the Human Development Index in these countries. The HDI is a composite measure that assesses a country's overall achievement in health, education, and standard of living. The HDI is expressed as a number between 0 and 1, with 1 indicating high human development. India's HDI of 0.685 in 2023 shows 'medium development', while the HDIs of Japan and Poland crossed the 0.9 mark, pointing to very high human development (**Chart 6**).

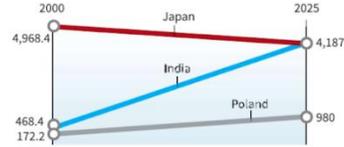
## A detailed picture

The data for the charts were sourced from the International Monetary Fund's "World Economic Outlook (April 2025)", the World Bank's indicator database, International Labour Organization Statistics, and Our World in Data

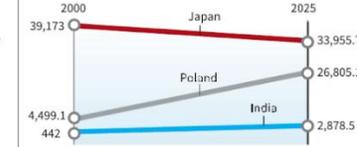
With inputs from Bharat A. Ramana, who is interning with the data team



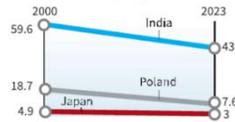
**Chart 1A:** The absolute Gross Domestic Product (in \$ billion) of select countries in 2000 and 2025



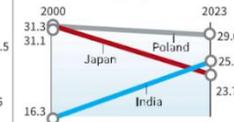
**Chart 1B:** The GDP per capita (in U.S. \$) of select countries in 2000 and 2025



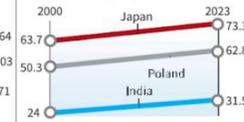
**Chart 2A:** The share of employment in the agriculture sector in select countries in 2000 and 2023 (in %)



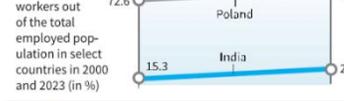
**Chart 2B:** The share of employment in the industrial sector in select countries in 2000 and 2023 (in %)



**Chart 2C:** The share of employment in the service sector in select countries in 2000 and 2023 (in %)



**Chart 3:** The share of wage and salaried workers out of the total employed population in select countries in 2000 and 2023 (in %)



**Chart 4:** The gross enrolment rate in college-level education in select countries in 1995 and 2022 (in %)



**Chart 5:** The average life expectancy of a person from select countries in 2000 and 2023 (in years)



**Chart 6:** The Human Development Index of select countries in 2000 and 2023



## India's Rise to 4th Largest Economy Belies Per Capita Reality

भारत का चौथी सबसे बड़ी अर्थव्यवस्था बनना प्रति व्यक्ति वास्तविकता को छुपाता है

The **International Monetary Fund (IMF)** recently projected that India will surpass Japan to become the **world's fourth largest economy in 2025**.

अंतर्राष्ट्रीय मुद्रा कोष (IMF) ने हाल ही में अनुमान लगाया कि भारत 2025 में जापान को पीछे छोड़कर दुनिया की चौथी सबसे बड़ी अर्थव्यवस्था बन जाएगा।



- While this marks a **notable milestone**, comparisons based solely on **absolute Gross Domestic Product (GDP)** offer limited insight into people's real living conditions.  
हालांकि यह एक महत्वपूर्ण उपलब्धि है, लेकिन केवल सकल घरेलू उत्पाद (GDP) के आधार पर की गई तुलना लोगों की वास्तविक जीवन स्थितियों की सीमित समझ देती है।
- **Absolute GDP is useful for understanding the size of an economy**, but it does not reflect **wealth distribution, development, or citizen well-being**.  
सकल GDP अर्थव्यवस्था के आकार को समझने के लिए उपयोगी है, लेकिन यह धन वितरण, विकास, या नागरिकों की भलाई को नहीं दर्शाता।
- **It hides disparities in population, cost of living, and income inequality**.  
यह जनसंख्या, जीविका लागत, और आय विषमता जैसी असमानताओं को छिपा देता है।
- A country may have a **large economy**, but that **doesn't necessarily mean higher prosperity or better living standards**.  
किसी देश की बड़ी अर्थव्यवस्था हो सकती है, लेकिन इसका अर्थ अधिक समृद्धि या बेहतर जीवन स्तर नहीं होता।

## GDP and Per Capita Comparison

### GDP और प्रति व्यक्ति तुलना

- According to **Chart 1A**, **India's GDP is projected to rise from \$468.4 billion in 2000 to \$4,187 billion in 2025, surpassing Japan**.  
चार्ट 1A के अनुसार, भारत का GDP 2000 में \$468.4 अरब से बढ़कर 2025 में \$4,187 अरब तक पहुंचने का अनुमान है, जिससे यह जापान को पीछे छोड़ देगा।
- However, **Chart 1B** shows India's **GDP per capita in 2025 is 12 times lower than Japan's**.  
लेकिन चार्ट 1B के अनुसार, भारत का प्रति व्यक्ति GDP 2025 में जापान से 12 गुना कम रहेगा।
- **When Poland is added for comparison, its GDP is about four times smaller than India's, but its GDP per capita is nine times higher**.  
जब तुलना में पोलैंड को जोड़ा जाता है, तो उसका GDP भारत से चार गुना छोटा है, लेकिन उसका प्रति व्यक्ति GDP भारत से नौ गुना अधिक है।

## Beyond GDP: Broader Measures of Development

### GDP से आगे: विकास के व्यापक मापदंड

- Economic growth is important, but we must also examine **social, educational, health, and democratic indicators** for true progress.  
आर्थिक वृद्धि महत्वपूर्ण है, लेकिन सामाजिक, शैक्षिक, स्वास्थ्य, और लोकतांत्रिक संकेतकों की भी जांच करनी चाहिए ताकि वास्तविक प्रगति का मूल्यांकन हो सके।
- The article compares India, Poland, and Japan using indicators from **two time periods** — recent data and data from around **20 years ago**.



यह लेख भारत, पोलैंड और जापान की तुलना दो समय अवधियों में करता है — हालिया आंकड़े और लगभग 20 वर्ष पहले के आंकड़े।

## Nature of Employment

### रोज़गार की प्रकृति

- As per Charts 2A, 2B, and 2C, in 2023, nearly **45% of India's workforce was employed in agriculture**.  
चार्ट 2A, 2B और 2C के अनुसार, 2023 में भारत की लगभग 45% कार्यबल कृषि में कार्यरत थी।
- In contrast, the **agricultural workforce share in Poland and Japan had dropped to below 10%, with more people in industry and services**.  
इसके विपरीत, पोलैंड और जापान में यह हिस्सा 10% से कम रह गया है, और लोग अधिकतर उद्योग और सेवा क्षेत्रों में कार्यरत हैं।
- On **regular employment**, only **23.9%** of Indian workers had **formal employment contracts** in 2023, compared to **91% in Japan** and **80.1% in Poland** (Chart 3).  
नियमित रोजगार में, भारत में केवल 23.9% कर्मचारियों के पास औपचारिक अनुबंध थे, जबकि जापान में 91% और पोलैंड में 80.1% के पास थे (चार्ट 3)।

## Education and Enrolment

### शिक्षा और नामांकन

- The **gross enrolment rate** in college-level education in India in 2022 was **32.7%**, compared to **65% in Japan** and **75% in Poland** (Chart 4).  
भारत में 2022 में कॉलेज स्तर पर सकल नामांकन दर 32.7% थी, जबकि जापान में 65% और पोलैंड में 75% थी (चार्ट 4)।
- The **life expectancy** in India in 2023 was **72 years**, compared to **84 years in Japan** and **78.5 years in Poland** (Chart 5).  
भारत में 2023 में औसत जीवन प्रत्याशा 72 वर्ष थी, जबकि जापान में 84 वर्ष और पोलैंड में 78.5 वर्ष थी (चार्ट 5)।
- The **Infant Mortality Rate (IMR)** fell in all three countries between 2000 and 2023, but India's IMR still remains at **24.5 deaths per 1,000 live births**, compared to **less than 5** in Japan and Poland.  
2000 से 2023 के बीच सभी तीन देशों में शिशु मृत्यु दर (IMR) घटी, लेकिन भारत की IMR अब भी 24.5 प्रति 1,000 जीवित जन्म है, जबकि जापान और पोलैंड में यह 5 से कम है।

## Human Development Index (HDI)

### मानव विकास सूचकांक (HDI)



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- The **Human Development Index (HDI)** combines measures of **health, education, and standard of living**.  
मानव विकास सूचकांक (HDI) में स्वास्थ्य, शिक्षा, और जीवन स्तर को मापा जाता है।
- It ranges from **0 to 1**, with values closer to **1** indicating **high development**.  
यह 0 से 1 के बीच होता है, और 1 के नज़दीक मान उच्च विकास को दर्शाता है।
- India's HDI in **2023** was **0.685**, which is categorized as **medium development**.  
भारत का HDI 2023 में 0.685 था, जिसे मध्यम विकास के रूप में वर्गीकृत किया गया।
- In contrast, **Japan and Poland** had HDI values **above 0.9**, indicating **very high human development** (Chart 6).  
इसके विपरीत, जापान और पोलैंड का HDI 0.9 से ऊपर था, जो बहुत उच्च मानव विकास को दर्शाता है (चार्ट 6)।

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# Is India the world's fourth largest economy?

The GDP of a country tells us very little about how its people live and work, how healthy or educated its people are, and how unequally its aggregate income is distributed. A much better way of comparing countries might be a set of indicators that help us meaningfully measure economic performance and social progress

SS Paper III: Economy

## ECONOMIC NOTES

R. Ramakumar

Over the past week, much media space was devoted to discussions around the size of India's economy relative to other economies of the world. These discussions were based on the new estimates of the Gross Domestic Product (GDP) of various countries for 2024 by the International Monetary Fund (IMF), and its annual projections from 2025 till 2030. As per these projections, India's GDP in 2025 was likely to be \$4,187.03 billion, which will be marginally higher than the GDP of Japan at \$4,186.43 billion. Thus, in all probability, India will be the fourth largest economy of the world in 2025 after the U.S., China and Germany.

These discussions have stirred the political pot as well. Government sources attributed the improved rank to the leadership capabilities of the Prime Minister. It was also argued that India could grow to be the third largest economy of the world in 2028, and a high income, developed country (*viksit bharat*) by 2047.

### The many GDPs

The GDP of a country tells us very little about how its people live and work, how healthy or educated its people are, and how unequally its aggregate income is distributed. GDP estimates also miss out on measuring several crucial aspects of economic activity that are not covered by markets, such as the unpaid work of women. Hence, there have been repeated calls to revise national accounts systems, and the predominant use of GDP to assess everything, and use other indicators that allow us to study socio-economic achievements better. Yet, the dominant use of GDP has continued in global and domestic discourse.

In recent years, the politicisation of statistical systems has clouded any objective assessment of India's economic status. The discussions around India's rank in GDP size are just an example. Comparison of GDP sizes across countries is a complex effort. International organisations and economists have spent decades trying to perfect a robust methodology for these comparisons. Consequently, there is no single GDP estimate for countries. There are several GDP estimates based on different methodologies and units.

The methodology of estimating GDP in different countries is largely standardised even as there are variations in the quality of data collection. But these estimates are available only in the national currencies of each country. So, how does one compare the GDP size of India and, say, the U.S.? To compare, one needs the GDP estimates of all countries to be in one common unit. This common unit is the U.S. dollar.

### On determining the GDP

But problems remain. There are two ways of converting a GDP estimate in a national currency to a GDP estimate in U.S. dollars. First, one may use market exchange rates from the foreign exchange markets. At the time of writing this article, one dollar was valued at ₹85.69. One may simply divide India's nominal GDP by ₹85.69 to get a GDP estimate in U.S. dollars, and then repeat that for all other countries and rank them.

According to the GDP estimates based on market exchange rates, India was ranked the fifth largest economy from 2021 (Table 1 and Figure 1). Taken

## Measuring the economy

Comparison of GDP sizes across countries is a complex effort. International organisations and economists have spent decades trying to perfect a robust methodology for these comparisons. Consequently, there is no single GDP estimate for countries but several, based on different methodologies and units

**Table 1:** Ranks of the top 10 economies in nominal GDP at market exchange rates, 1990 to 2030, in U.S. dollars

Country	1990	2000	2009	2024	2025p	2030p
United States	1	1	1	1	1	1
China	11	6	3	2	2	2
Germany	3	3	4	3	3	4
Japan	2	2	2	4	5	5
India	14	13	11	5	4	3
United Kingdom	5	4	6	6	6	6
France	4	5	5	7	7	7
Italy	6	7	7	8	8	9
Canada	7	8	10	9	9	8
Brazil	10	10	8	10	10	10

**Table 2:** Ranks of the top 10 economies in nominal GDP at PPP exchange rates, 1990 to 2030

Country	1990	2000	2009	2024	2025p	2030p
China	7	3	2	1	1	1
United States	1	1	1	2	2	2
India	8	5	3	3	3	3
Russian Federation	-	9	6	4	4	4
Japan	2	2	4	5	5	5
Germany	3	4	5	6	6	6
Brazil	9	10	8	7	8	8
Indonesia	13	14	12	8	7	7
France	5	7	7	9	9	10
United Kingdom	6	8	9	10	10	9

Note: Figures till 2024 are estimates, and afterwards are projections.

**Figure 1:** India's rank in GDP size at market exchange rates and PPP international dollars, 1990 to 2030



forward, the IMF projects that India will be the fourth largest economy in 2025 and the third largest economy in 2028.

The U.S. is ranked first, and China is ranked second. But is this the only method to compare GDP sizes? It is globally accepted that conversions based on market exchange rates are robust only when the outcomes are closely linked to the prevailing exchange rates. Transactions in the "current account" of an economy are a case in point, which involves the flow of financial resources across countries. For example, how much did each country export in value terms? How much remittances did international migrants from each country send back home?

### The PPP comparison

When we try to compare GDP sizes across countries and time, market exchange rates deliver poorly. This is primarily because first, market exchange rates are highly volatile, which creates problems for stable temporal comparisons (see the fluctuations in Figure 1). Secondly, market exchange rates do not work well when "purchasing powers" of people are different between countries. For example, the price of a beer in New York may be \$5 but only about ₹150 in Mumbai (or \$1.80). The price of a Big Mac meal in McDonald's may be \$12 in New York but only about ₹385 (or \$4.50) in Mumbai. Thirdly, the prices of non-traded goods tend to be far cheaper than traded goods in developing countries than in developed countries. For example, the monthly rent for a one-bedroom apartment may be about \$4,000 in New York but only about ₹70,000 (or \$824) in Mumbai. The price of a haircut in New York may be \$30, but only about ₹200 (or \$2.40) in Mumbai.

These differences across countries arise primarily because wages (and hence prices) are lower, and many non-traded sectors are labour-intensive, in developing countries than in the developed countries. If analysts ignore these differences, they will be underestimating the purchasing power of people in developing countries, and, hence,

depressing their GDP estimates. This is why a second method is used to convert national currencies into dollars – "PPP exchange rates", where PPP stands for Purchasing Power Parity. Here, the exchange rates used equate the cost of a "typical" basket of goods across countries. When converted to international dollars based on PPP exchange rates, the estimates of GDP for developing countries, where prices are relatively low, would rise. In 2024, the GDP of the U.S. was 7.5 times higher than India's GDP if the market exchange rates method was used. But it was only 1.8 times higher than India's GDP if the PPP exchange rates method was used.

If PPP-based GDP estimates are used to compare GDP sizes, an interesting finding emerges (see Table 2). India had already become the world's third largest economy in 2009 and has retained that rank for the past 16 years (see Figure 1). Also, IMF's PPP-based projections do not show any improvement in India's rank between 2024 and 2030. It turns out that the government has chosen to project and celebrate India's rank in GDP size based on market exchange rates – and not PPP exchange rates – only because the outcome suits its favoured political narrative.

### Improving the comparisons

There is no doubt that the PPP method allows for a better comparison of GDP sizes than the market exchange rates method. However, the PPP method needs to be employed carefully so as to avoid misleading inferences. PPPs are used precisely because developing countries have lower wages, and hence lower prices and incomes, than in the developed countries. To cite an instance, about 76% of India's casual workers in agriculture and about 70% of India's casual workers in construction do not obtain even the prescribed minimum wages (as per ILO's India Employment Report 2024). In addition, countries like India have a large informal sector, which is marked by severe underemployment, and large numbers of unpaid female workers.

In other words, the poorer and the more underdeveloped a country is, the larger will be its "inflation" of GDP via the PPP route. Consequently, the fact that India was the world's third largest economy from 2009 itself must not delude anyone into believing that its GDP differentials with, say, the U.S. are rapidly narrowing, or that its GDP size is larger than that of Japan or Germany. An excellent example of such a misconception is the claim by Suman Berry, the Vice-Chairperson of the Niti Aayog, that India's GDP has already reached \$15,000 billion (or \$15 trillion) in PPP terms, which is more than thrice its GDP size at market exchange rates and constitutes half the size of the U.S. GDP.

India has a large GDP size, but it is also host to the world's largest population. One can boast about its GDP size only until someone sits down and divides the GDP by the population. The per capita GDP in India was \$2,711 in 2024 in current dollar terms, which placed it at the lower end of the list of "lower middle-income countries". In the same year, the per capita GDP in Sri Lanka was \$4,325, and in Bhutan was \$3,913. In 1991, India had a higher per capita GDP at \$304 than in Vietnam at \$141. But by 2024, Vietnam's per capita GDP had grown to \$4,536 while India's per capita GDP languished at \$2,711. In terms of market exchange rates, India's rank in per capita GDP in 2024 was 144th among 196 countries. Even in terms of PPP international dollars, India's rank in per capita GDP in 2024 was 127th among 196 countries. Either way, we are faced with a "big economy illusion": India's large GDP size has very little to do with the well-being of its people.

A much better way of knowing if India is more developed or less developed than the U.S., China, Japan or Germany might be to compare a set of indicators across them that help us meaningfully measure economic performance and social progress – indicators that signify fundamental elements of life and work that citizens care about.

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## THE GIST

When we try to compare GDP sizes across countries and time, market exchange rates deliver poorly. This is primarily because first, market exchange rates are highly volatile, which creates problems for stable temporal comparisons.

There is no doubt that the PPP method allows for a better comparison of GDP sizes than the market exchange rates method. However, the PPP method needs to be employed carefully so as to avoid misleading inferences.

India has a large GDP size, but it is also host to the world's largest population. One can boast about its GDP size only until someone sits down and divides the GDP by the population.

**Is India the world's fourth largest economy?**

**क्या भारत दुनिया की चौथी सबसे बड़ी अर्थव्यवस्था है?**



The GDP of a country tells us very little about how its people live and work, how healthy or educated its people are, and how unequally its aggregate income is distributed.

एक देश का सकल घरेलू उत्पाद (GDP) यह नहीं बताता कि उसके लोग कैसे जीते और काम करते हैं, उनकी स्वास्थ्य और शिक्षा की स्थिति क्या है, और आय कितनी असमान रूप से बंटी हुई है।

- A much better way of comparing countries might be a set of indicators that help us meaningfully measure **economic performance** and **social progress**.  
देशों की तुलना करने का बेहतर तरीका वह संकेतक हो सकते हैं जो आर्थिक प्रदर्शन और सामाजिक प्रगति को बेहतर ढंग से मापने में मदद करें।

## Media Attention on India's GDP Rank

### भारत की जीडीपी रैंक पर मीडिया का ध्यान

- Over the past week, there was extensive media discussion about the **size of India's economy compared** to other countries.  
पिछले सप्ताह भारत की अर्थव्यवस्था के आकार की तुलना में अन्य देशों के साथ मीडिया में काफी चर्चा हुई।
- These discussions were based on the **IMF's GDP estimates for 2024** and its **annual projections from 2025 to 2030**.  
ये चर्चाएं अंतर्राष्ट्रीय मुद्रा कोष (IMF) की 2024 की GDP अनुमान और 2025 से 2030 तक की वार्षिक परियोजनाओं पर आधारित थीं।
- According to these projections, **India's GDP in 2025** will be **\$4,187.03 billion**, slightly higher than **Japan's GDP of \$4,186.43 billion**.  
इन अनुमानों के अनुसार, 2025 में भारत की GDP \$4,187.03 बिलियन होगी, जो जापान की \$4,186.43 बिलियन GDP से थोड़ी अधिक होगी।
- Thus, **India will likely be the fourth largest economy in 2025**, after the **U.S., China, and Germany**.  
इसलिए भारत संभवतः 2025 में अमेरिका, चीन और जर्मनी के बाद चौथी सबसे बड़ी अर्थव्यवस्था होगा।

## Political Reaction to the GDP Ranking

### जीडीपी रैंकिंग पर राजनीतिक प्रतिक्रिया

- These projections also stirred **political debate**.  
इन अनुमानों ने राजनीतिक बहस को भी जन्म दिया।
- Government sources credited the improved rank to the **leadership of the Prime Minister**.  
सरकारी सूत्रों ने इस बेहतर रैंक का श्रेय प्रधानमंत्री के नेतृत्व को दिया।



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- It was claimed that India could become the **third largest economy** by 2028, and a **high-income developed country (Viksit Bharat)** by 2047.

यह भी दावा किया गया कि भारत 2028 तक तीसरी सबसे बड़ी अर्थव्यवस्था बन सकता है, और 2047 तक एक विकसित उच्च-आय वाला देश (विकसित भारत) बन सकता है।

## The Limitations of GDP

### जीडीपी की सीमाएं

- GDP tells us little about how people live, their **health, education**, or how **unequal** the income distribution is.  
GDP यह नहीं बताता कि लोग कैसे जीते हैं, उनकी सेहत, शिक्षा कैसी है, या आय वितरण कितना असमान है।
- GDP also fails to include important **non-market activities, such as unpaid work by women**.  
GDP उन महत्वपूर्ण गैर-बाज़ार गतिविधियों को भी शामिल नहीं करता, जैसे महिलाओं द्वारा किया गया बिना वेतन का कार्य।
- Hence, **many have argued for using alternative indicators** to better measure **socio-economic progress**.  
इसलिए कई लोगों ने सामाजिक-आर्थिक प्रगति को बेहतर मापने के लिए वैकल्पिक सूचकांकों का उपयोग करने की मांग की है।
- Yet, **GDP remains the most commonly used measure** in both **global and domestic** discussions.  
फिर भी, **GDP** अभी भी वैश्विक और घरेलू चर्चाओं में सबसे अधिक उपयोग किया जाने वाला मापदंड है।
- The **politicisation of statistics** in recent years has made objective assessment of India's economic status more difficult.  
हाल के वर्षों में आंकड़ों के राजनीतिकरण ने भारत की आर्थिक स्थिति का निष्पक्ष मूल्यांकन करना और कठिन बना दिया है।
- Comparing GDP sizes is complex, and economists have spent decades refining methodologies**.  
GDP के आकार की तुलना करना जटिल है, और अर्थशास्त्रियों ने विधियों को सुधारने में दशकों बिताए हैं।
- There is no single GDP estimate** — different **methods and units** give different results.  
कोई एकल GDP अनुमान नहीं होता — विभिन्न विधियों और इकाइयों के आधार पर अलग-अलग परिणाम मिलते हैं।

## Converting GDP into a Common Currency

### GDP को एक सामान्य मुद्रा में बदलना



- GDP estimates are first made in **national currencies**.  
GDP के अनुमान पहले **राष्ट्रीय मुद्राओं** में लगाए जाते हैं।
- To compare globally, GDP must be converted to a **common unit**, usually the **U.S. dollar**.  
वैश्विक तुलना के लिए, GDP को एक **समान इकाई**, आमतौर पर **अमेरिकी डॉलर**, में बदला जाता है।
- One way is using **market exchange rates**.  
एक तरीका है **बाजार विनिमय दरों** का उपयोग करना।
- At the time of writing, **\$1 = ₹85.69**. So, India's **nominal GDP** can be divided by **₹85.69** to get the dollar value.  
लेखन के समय, **\$1 = ₹85.69** था। इसलिए भारत की **नाममात्र GDP** को **₹85.69** से विभाजित करके डॉलर में बदला जा सकता है।
- Using this method, India was ranked as the **fifth largest economy since 2021**.  
इस विधि के अनुसार, भारत **2021 से पांचवीं सबसे बड़ी अर्थव्यवस्था** रहा है।
- The **IMF now projects India will be fourth in 2025 and third in 2028**.  
IMF का अनुमान है कि भारत **2025 में चौथा और 2028 में तीसरा** स्थान प्राप्त करेगा।

## The Limits of Market Exchange Rate Method

### बाजार विनिमय दर विधि की सीमाएं

- This method works well only for **current account transactions like exports or remittances**.  
यह विधि केवल **चालू खाता लेन-देन** जैसे **निर्यात या प्रवासी धन प्रेषण** के मामलों में ही प्रभावी होती है।
- But it may not reflect **true domestic economic strength**, especially in countries with **undervalued currencies**.  
लेकिन यह किसी देश की **वास्तविक घरेलू आर्थिक ताकत** नहीं दर्शाती, खासकर उन देशों में जिनकी **मुद्रा कमजोर** होती है।

## The PPP Comparison

### पीपीपी तुलना

- When comparing **GDP sizes** across countries and time, **market exchange rates** often give unreliable results.  
समय और देशों के बीच **जीडीपी के आकार** की तुलना करते समय, **मौद्रिक विनिमय दरें** अक्सर अविश्वसनीय परिणाम देती हैं।
- Firstly, **market exchange rates are highly volatile**, which affects stable comparison over time.  
पहली बात, **मौद्रिक विनिमय दरें काफी अस्थिर** होती हैं, जिससे समय के साथ स्थिर तुलना प्रभावित होती है।



- Secondly, these rates don't reflect differences in purchasing power between countries.  
दूसरी बात, ये दरें देशों के बीच क्रय शक्ति के अंतर को नहीं दर्शाती हैं।
- For instance, a beer costs \$5 in New York but only around ₹150 (\$1.80) in Mumbai.  
उदाहरण के लिए, न्यूयॉर्क में बीयर की कीमत \$5 है, लेकिन मुंबई में केवल ₹150 (या \$1.80)।
- A Big Mac meal may cost \$12 in New York, but only ₹385 (\$4.50) in Mumbai.  
एक बिग मैक मील की कीमत न्यूयॉर्क में \$12 हो सकती है, जबकि मुंबई में ₹385 (या \$4.50)।
- Non-traded goods like rent or haircut are much cheaper in developing countries.  
गैर-व्यापारिक वस्तुएं जैसे किराया या बाल कटवाना, विकासशील देशों में काफी सस्ती होती हैं।
- A 1-bedroom apartment's rent is about \$4,000 in New York, but only around ₹70,000 (\$824) in Mumbai.  
एक एक-बेडरूम फ्लैट का किराया न्यूयॉर्क में लगभग \$4,000 है, जबकि मुंबई में सिर्फ ₹70,000 (या \$824)।
- A haircut may cost \$30 in New York, but only about ₹200 (\$2.40) in Mumbai.  
बाल कटवाने की कीमत न्यूयॉर्क में \$30 हो सकती है, जबकि मुंबई में सिर्फ ₹200 (या \$2.40)।
- These differences exist because wages are lower in developing countries, and many non-traded sectors are labour-intensive.  
ये अंतर इसलिए हैं क्योंकि विकासशील देशों में वेतन कम होते हैं और कई गैर-व्यापारिक क्षेत्रों में श्रम-प्रधान कार्य होता है।
- Ignoring such differences leads to underestimating the purchasing power in developing countries, thus lowering their GDP estimates.  
इन अंतर को नजरअंदाज करने से विकासशील देशों की क्रय शक्ति कम आंकी जाती है, जिससे उनकी जीडीपी का आंकलन घट जाता है।
- Hence, a better way is to use PPP (Purchasing Power Parity) exchange rates, which compare a common basket of goods.  
इसलिए, एक बेहतर तरीका है पीपीपी (क्रय शक्ति समता) विनिमय दरों का उपयोग करना, जो एक समान वस्तुओं की टोकरी की तुलना करता है।
- With PPP, developing countries' GDP increases since prices are lower.  
पीपीपी के अनुसार, विकासशील देशों की जीडीपी बढ़ जाती है क्योंकि कीमतें कम होती हैं।
- In 2024, U.S. GDP was 7.5 times higher than India's using market rates, but only 1.8 times higher using PPP.  
2024 में अमेरिका की जीडीपी, मौद्रिक दरों के अनुसार, भारत से 7.5 गुना अधिक थी, लेकिन पीपीपी के अनुसार सिर्फ 1.8 गुना अधिक।
- Using PPP-based GDP, India became the third-largest economy in the world in 2009 and maintained that rank till 2024.  
पीपीपी आधारित जीडीपी के अनुसार, भारत 2009 में ही दुनिया की तीसरी सबसे बड़ी अर्थव्यवस्था बन गया और 2024 तक इस रैंक को बनाए रखा।



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- However, **IMF projections show no improvement in India's rank from 2024 to 2030.**  
हालांकि, आईएमएफ के अनुमान बताते हैं कि 2024 से 2030 के बीच भारत की रैंक में कोई सुधार नहीं होगा।
- The Indian government promotes **market rate-based GDP rank** as it suits its **political narrative.**  
भारतीय सरकार मौद्रिक दर आधारित जीडीपी रैंक को बढ़ावा देती है क्योंकि यह उसकी राजनीतिक सोच के अनुकूल है।

## Improving the Comparisons

### तुलनाओं में सुधार

- **PPP method** is better than market rates for comparing **GDP sizes**, but it must be used carefully to avoid **misleading conclusions.**  
जीडीपी आकार की तुलना के लिए पीपीपी विधि मौद्रिक दरों से बेहतर है, लेकिन गुमराह करने वाले निष्कर्षों से बचने के लिए इसे सावधानी से उपयोग करना चाहिए।
- PPP works because **wages, prices, and incomes are lower in developing countries.**  
पीपीपी इसलिये काम करता है क्योंकि विकासशील देशों में वेतन, कीमतें और आय कम होती हैं।
- As per the **India Employment Report 2024**, about **76% of India's agricultural casual workers and 70% of construction workers don't earn minimum wages.**  
इंडिया एम्प्लॉयमेंट रिपोर्ट 2024 के अनुसार, भारत के 76% कृषि अस्थायी श्रमिक और 70% निर्माण श्रमिक न्यूनतम वेतन भी नहीं पाते हैं।
- India also has a **large informal sector with underemployment** and many **unpaid female workers.**  
भारत में एक बड़ा असंगठित क्षेत्र है, जिसमें अपूर्ण रोजगार और कई अवैतनिक महिला श्रमिक हैं।
- The poorer a country is, the more **inflated** its GDP appears under PPP.  
कोई देश जितना गरीब होता है, पीपीपी के तहत उसकी जीडीपी उतनी अधिक बढ़ी हुई दिखती है।
- Thus, being the **third-largest economy** since 2009 under PPP should not mislead people into thinking **India is catching up with U.S.**  
इसलिए, 2009 से तीसरी सबसे बड़ी अर्थव्यवस्था होना लोगों को यह सोचने के लिए गुमराह नहीं करना चाहिए कि भारत अमेरिका की बराबरी कर रहा है।
- For instance, **NITI Aayog Vice-Chairperson Suman Berry** claimed India's **PPP GDP is \$15 trillion**, over **three times** its market GDP and **half** of U.S. GDP.  
उदाहरण के लिए, नीति आयोग के उपाध्यक्ष सुमन बेरी ने दावा किया कि भारत की पीपीपी जीडीपी \$15 ट्रिलियन है, जो कि बाजार दर से तीन गुना और अमेरिका की आधी है।
- India does have a **large GDP**, but it also has the **world's largest population.**  
भारत की जीडीपी बड़ी है, लेकिन इसकी जनसंख्या भी दुनिया में सबसे अधिक है।
- **GDP per capita** in India in 2024 was **\$2,711**, placing it among **lower-middle-income countries.**



2024 में भारत की प्रति व्यक्ति जीडीपी \$2,711 थी, जिससे यह निचले मध्य-आय वाले देशों में शामिल हुआ।

- In comparison, **Sri Lanka's** was \$4,325 and **Bhutan's** was \$3,913.  
तुलना में, श्रीलंका की \$4,325 और भूटान की \$3,913 थी।
- In 1991, India's per capita GDP was \$304, while **Vietnam's** was only \$141.  
1991 में भारत की प्रति व्यक्ति जीडीपी \$304 थी, जबकि वियतनाम की केवल \$141।
- But by 2024, **Vietnam** grew to \$4,536, while India remained at \$2,711.  
लेकिन 2024 तक, वियतनाम की जीडीपी बढ़कर \$4,536 हो गई, जबकि भारत \$2,711 पर ही रहा।
- In 2024, India ranked 144th out of 196 countries in **per capita GDP** (market exchange rates).  
2024 में भारत की प्रति व्यक्ति जीडीपी (मौद्रिक दरों पर) के अनुसार रैंक 196 में से 144वीं थी।
- Even under PPP, India's rank was only 127th out of 196 in **per capita GDP**.  
पीपीपी के अनुसार भी भारत की प्रति व्यक्ति जीडीपी रैंक 196 में से केवल 127वीं थी।
- This reflects the “**big economy illusion**” — large GDP size doesn't mean **higher well-being** for the population.  
यह "बड़ी अर्थव्यवस्था का भ्रम" दर्शाता है — बड़ी जीडीपी का मतलब जनता की बेहतरी नहीं होता।
- A better approach is to compare **key indicators** of **economic and social progress**, which reflect **life and work quality**.  
एक बेहतर तरीका है कि हम आर्थिक और सामाजिक प्रगति के प्रमुख संकेतकों की तुलना करें, जो जीवन और कार्य की गुणवत्ता को दर्शाते हैं।



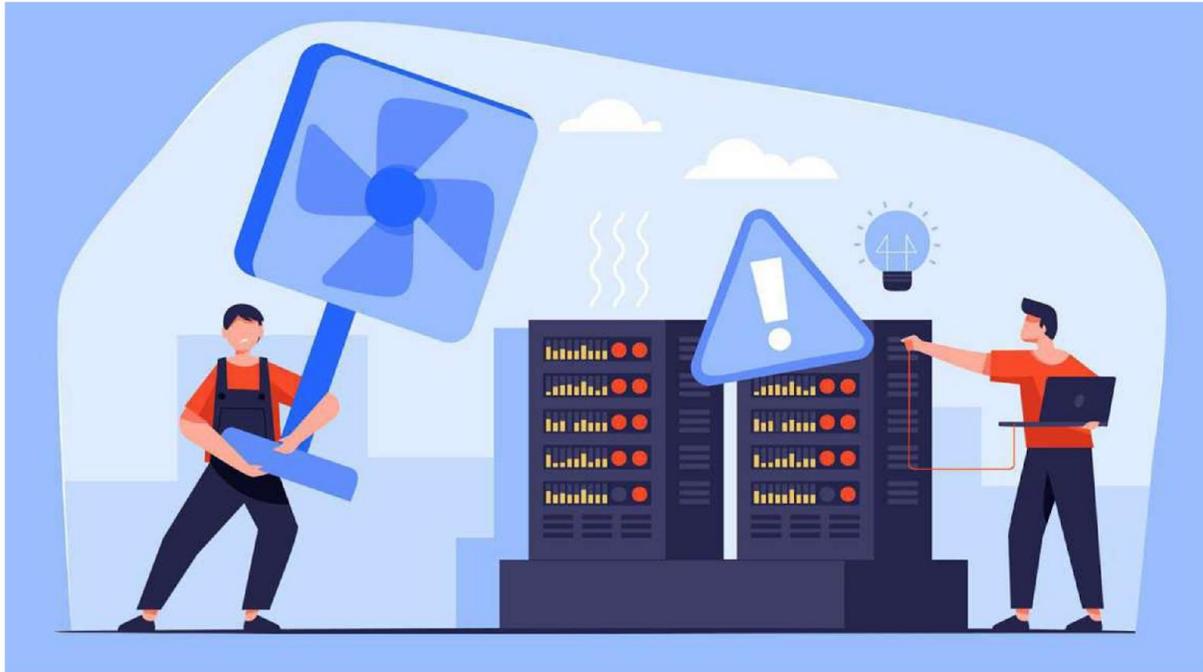
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# How the technology industry is trying to meet its climate goals

GS Paper III: S&T

Electronics heat up very quickly. If the chips get too hot, they may malfunction or altogether fail. Cooling keeps them running smoothly and ensures a longer lifespan. However, in data centres, cooling consumes nearly as much power as computing

**T.V.Venkateswaran**

**A** team of researchers from Microsoft and WSP Global has published a groundbreaking study in *Nature* demonstrating that advanced cooling methods like cold plates and immersion cooling can cut data centre emissions by 15-21%, energy use by 15-20%, and water consumption by 31-52% compared to traditional air cooling.

The life cycle assessment, led by Husam Alissa of Microsoft, Mukunth Natarajan, and Praneet Arshi of WSP, among others, also provided actionable insights to help the Information and Communications Technology (ICT) industry meet its climate goals. "Our [life cycle assessment] has shown that reducing data centre energy use through advanced liquid-cooling technologies will lead to marked reductions in data centre environmental impacts," the authors wrote in their paper.

## Electronics versus rising temperatures

Electronics heat up like crowded kitchens: billions of microscopic switches (transistors) are like cooks working nonstop, bumping into each other while flipping electrical dosas (data). The tighter they are packed – that is smaller the chips are – or the more tasks they handle, the more they collide and create heat, just like a packed kitchen gets hotter, needing fans and A/Cs to cool down. A laptop is like a kitchen with one burner: a simple fan suffices. A data centre is like a thousand laptops working at full speed in a single room, generating heat like a massive bonfire compared to a single candle.

Without cooling, the intense heat will melt the hardware in minutes.

Heat slows down electrons, like runners in thick mud. If the chips get too hot, they may malfunction or altogether fail. Cooling keeps them running smoothly, ensures a longer lifespan and fast and reliable performance, and prevents heat damage. Just like an athlete needs water to stay sharp in a race, electronics need efficient heat removal.

## Race to cut emissions

In data centres, cooling consumes nearly as much power as computing, like an AC fighting oven heat in a busy kitchen. To curb climate change, the ICT industry needs to cut emissions by 42% by 2030 (from its 2015 levels). Data centres need greener designs that use less energy and water, and have lower greenhouse gas emissions to help meet global climate goals and keep warming below 1.5°C. Urgent upgrades to energy, efficiency, and cooling are critical.

Chips are also getting smaller, faster, and more energy-efficient, like upgrading your phone every year without draining the battery faster. As the demand for cloud services increases, so must data centre capacities and heat mitigation strategies.

## Ice packs and oil baths

Two prominent cooling techniques have emerged as viable alternatives. Cold plates, also known as direct-to-chip cooling, are small heat exchange modules equipped with microchannels to enhance heat transfer. Think of a cold plate like an ice pack strapped to a feverish forehead, but for computer chips. It sits directly on hot components, with small coolant-filled

channels absorbing heat into tiny channels filled with coolant.

When it becomes warmer, the coolant – such as 25% polyethylene glycol and 75% water – flows away and dumps the heat outside, while fresh coolant entering the veins keep the cycle going. This method is more efficient than fans the same way swapping a handheld fan for an ice-cold bath is better. In a cold-plate system, the liquid-to-air heat transfer ratio ranges from 50% to 80%, sometimes more.

The second technique, immersion cooling, is like dunking a hot frying pan into a pool of heat-hungry oil instead of blowing air on it. The oil, which is good at dissipating heat within itself, soaks up 100% of the pan's heat and keeps it from overheating. In the one-phase cooling method, like swirling cold water around the pan, the oil stays liquid but carries heat away. In two-phase cooling, the technique works the way water cools in a mud pot: the coolant fluid bubbles into vapour at a low temperature, rises into a cooling coil, condenses, drips back down, and repeats. "These techs cut corrosion, boost reliability, and slash carbon footprint – all while running silent without fans," the researchers wrote.

Pioneers like Microsoft and Alibaba are already deploying these systems at scale.

## Green or just less dirty?

To truly lower the carbon footprint of cooling technologies, scientists, policymakers, and lawmakers need to weigh its full impact. While the new solutions are innovative, they face hurdles. Coolant fluids involve different regulations, and complex designs delay deployment. Using them is like swapping

plastic straws for paper: they are greener, but not without trade-offs. The world could end up trading one ecological problem for a different, even worse, one.

If the electricity for an electric car comes from a coal power plant, the car's carbon footprint is still high. Similarly, cooling gains can backfire if pollution is merely shifted elsewhere.

The study team's cradle-to-grave life cycle assessment evaluated air-cooled, cold-plate, and immersion cooling across emissions, energy, and water use, proving that sustainability demands systemic thinking, not isolated fixes.

## Twin engines of a green data centre

The assessment revealed that with grid electricity, cold plates and immersion cooling cut greenhouse gas emissions by more than 15%, energy use by more than 15%, and water consumption by more than 31% – making them superior to conventional cooling technologies in use today. With 100% renewable energy, the team found the cuts could jump to 13% for emissions, 15% for energy, and 50% for water.

"Switching to renewables slashes emissions by 85-90%, energy use by 6-7%, and water demand by 55-85%, regardless of cooling tech," the researchers wrote.

Thus, life cycle assessments can reveal sustainability trade-offs either within the same cooling technology or when comparing different technologies. Ultimately, the calculus is clear: ICT's climate future hinges on tackling how the industry cools its data centres.

T.V. Venkateswaran is a science communicator and visiting faculty member at the Indian Institute of Science Education and Research, Mohali.

## How the technology industry is trying to meet its climate goals

प्रौद्योगिकी उद्योग जलवायु लक्ष्यों को कैसे प्राप्त करने की कोशिश कर रहा

है

**Electronics heat up very quickly.** If the chips get too hot, they may malfunction or fail completely.

इलेक्ट्रॉनिक्स बहुत तेजी से गर्म हो जाते हैं। अगर चिप्स बहुत गर्म हो जाएं तो वे खराब हो सकते हैं या पूरी तरह फेल हो सकते हैं।

- **Cooling is essential** to keep chips running smoothly and to ensure a longer lifespan. कूलिंग आवश्यक है ताकि चिप्स सही तरीके से काम करते रहें और उनका जीवनकाल लंबा बना रहे।



- In **data centres**, cooling uses nearly as much **power** as the actual **computing** process.  
डेटा सेंटर में कूलिंग उतनी ही ऊर्जा खपत करती है जितनी कि कंप्यूटिंग प्रक्रिया।

## Breakthrough study on cooling by Microsoft and WSP

### Microsoft और WSP द्वारा कूलिंग पर एक महत्वपूर्ण अध्ययन

- A team from **Microsoft** and **WSP Global** published a **groundbreaking study** in *Nature*.  
Microsoft और WSP Global की टीम ने *Nature* में एक महत्वपूर्ण अध्ययन प्रकाशित किया।
- The study showed that **advanced cooling methods** like **cold plates** and **immersion cooling** can reduce:  
इस अध्ययन ने दिखाया कि कोल्ड प्लेट्स और इमर्सन कूलिंग जैसी उन्नत तकनीकों से निम्नलिखित में कमी लाई जा सकती है:
  - **Data centre emissions by 15-21%**  
डेटा सेंटर के उत्सर्जन में 15-21% की कमी
  - **Energy use by 15-20%**  
ऊर्जा खपत में 15-20% की कमी
  - **Water consumption by 31-52%**  
जल उपयोग में 31-52% की कमी
- The **life cycle assessment** was led by **Husam Alissa** of Microsoft and **Mukunth Natarajan** and **Praneet Arshi** of WSP.  
इस लाइफ साइकिल मूल्यांकन का नेतृत्व Microsoft के Husam Alissa और WSP के Mukunth Natarajan और Praneet Arshi ने किया।
- The study provided **actionable insights** for the **ICT industry** to meet **climate goals**.  
इस अध्ययन ने ICT उद्योग को जलवायु लक्ष्यों को प्राप्त करने के लिए व्यावहारिक सुझाव दिए।

## Electronics versus rising temperatures

### इलेक्ट्रॉनिक्स बनाम बढ़ता तापमान

- Electronics are like **crowded kitchens**, with billions of **transistors** acting like cooks flipping **electrical data** nonstop.  
इलेक्ट्रॉनिक्स भीड़भाड़ वाले रसोईघर जैसे होते हैं, जिनमें अरबों ट्रांजिस्टर लगातार इलेक्ट्रॉनिक डेटा प्रोसेस करते हैं।
- The **more tasks** they handle or the **smaller** the chips, the **hotter** they get.  
जितना अधिक कार्य ये चिप्स करते हैं या जितने छोटे होते हैं, उतने ही गर्म होते हैं।
- A **laptop** is like a kitchen with one burner; a **data centre** is like thousands of laptops in one room, generating **massive heat**.  
एक लैपटॉप एक बर्नर वाली रसोई की तरह है; एक डेटा सेंटर हजारों लैपटॉप को एक कमरे में चलाने जैसा है, जिससे भारी गर्मी उत्पन्न होती है।



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- Without cooling, this **intense heat** can **melt hardware** in **minutes**.  
अगर कूलिंग न हो, तो यह अत्यधिक गर्मी कुछ ही मिनटों में हार्डवेयर को पिघला सकती है।

## Importance of efficient cooling

### प्रभावी कूलिंग का महत्व

- **Heat** slows down **electrons**, just like runners in thick mud.  
गर्मी इलेक्ट्रॉनों की गति को धीमा कर देती है, जैसे कीचड़ में दौड़ते धावक।
- **Proper cooling** ensures **longer lifespan**, **fast performance**, and **protects from heat damage**.  
सही कूलिंग से लंबा जीवन, तेज़ प्रदर्शन, और गर्मी से सुरक्षा सुनिश्चित होती है।

## Race to cut emissions

### उत्सर्जन में कटौती की दौड़

- **Cooling in data centres** consumes nearly as much power as **computing**, like an AC fighting oven heat.  
डेटा सेंटर्स में कूलिंग कंप्यूटिंग जितनी ही ऊर्जा खपत करती है, जैसे ओवन की गर्मी से लड़ता एसी।
- The **ICT industry** must cut **emissions** by **42% by 2030** compared to **2015 levels** to meet **climate goals**.  
ICT उद्योग को 2030 तक 2015 के स्तर की तुलना में 42% उत्सर्जन में कटौती करनी होगी ताकि जलवायु लक्ष्यों को पूरा किया जा सके।
- **Greener designs** with less **energy and water use** are urgently needed.  
कम ऊर्जा और जल खपत वाली हरित डिजाइन की तुरंत आवश्यकता है।
- **Chips** are becoming **smaller, faster, and energy-efficient**, like newer phones that run better without draining battery.  
चिप्स अब छोटे, तेज़ और ऊर्जा-कुशल हो रहे हैं, जैसे नए फोन जो बैटरी जल्दी खत्म किए बिना बेहतर चलते हैं।
- **With growing demand for cloud services, data centre capacity and cooling strategies** must expand.  
क्लाउड सेवाओं की बढ़ती मांग के साथ, डेटा सेंटर्स की क्षमता और कूलिंग रणनीतियाँ भी बढ़ानी होंगी।

## Ice packs and oil baths – New cooling methods

### बर्फ के पैक और तेल स्नान – नई कूलिंग विधियाँ

- Two major **cooling techniques** are emerging: **cold plates** and **immersion cooling**.  
दो प्रमुख कूलिंग तकनीकें सामने आ रही हैं: कोल्ड प्लेट्स और इमर्सन कूलिंग।
- **Cold plates**, also called **direct-to-chip cooling**, use **microchannels** to transfer heat directly from hot components.



कोल्ड प्लेट्स, जिन्हें डायरेक्ट-टू-चिप कूलिंग भी कहते हैं, सूक्ष्म चैनलों के माध्यम से गर्म हिस्सों से सीधे गर्मी स्थानांतरित करती हैं।

- A cold plate is like an **ice pack** on a **feverish forehead**, placed directly on **computer chips**.

कोल्ड प्लेट एक बुखार में माथे पर रखे बर्फ के पैक जैसी होती है, जो सीधे कंप्यूटर चिप्स पर रखी जाती है।

- **Coolant fluid** (e.g. **25% polyethylene glycol and 75% water**) flows away with heat and returns cool, completing the cycle.

कूलेंट फ्लूइड (जैसे 25% पॉलीएथिलीन ग्लाइकोल और 75% पानी) गर्मी के साथ बहकर जाता है और ठंडा होकर लौटता है, जिससे चक्र पूरा होता है।

- This method is more **efficient** than air fans, like swapping a handheld fan for an **ice bath**.

यह विधि पंखों की तुलना में अधिक प्रभावी है, जैसे हाथ वाले पंखे की जगह बर्फ का स्नान करना।

- In cold-plate systems, the **liquid-to-air heat transfer ratio** ranges from **50% to 80%**.  
कोल्ड-प्लेट सिस्टम में तरल-से-वायु ताप स्थानांतरण अनुपात 50% से 80% तक होता है।

## Immersion Cooling: Oil Baths for Hot Hardware

### इमर्सन कूलिंग: गर्म हार्डवेयर के लिए तेल स्नान

- The second technique, **immersion cooling**, is like dunking a hot **frying pan** into a pool of **heat-hungry oil** instead of blowing air on it.

दूसरी तकनीक इमर्सन कूलिंग गर्म फ्राइंग पैन को गर्मी सोखने वाले तेल के पूल में डुबाने जैसी है, बजाय उस पर हवा फेंकने के।

- The **oil**, which is good at **dissipating heat**, absorbs **100%** of the pan's heat and prevents it from overheating.

यह तेल, जो गर्मी फैलाने में सक्षम है, 100% गर्मी को सोख लेता है और अत्यधिक गर्मी से बचाता है।

- In **one-phase cooling**, like swirling cold water around the pan, the oil remains **liquid** but carries heat away.

वन-फेज कूलिंग में, जैसे पैन के चारों ओर ठंडा पानी घुमाना, तेल तरल बना रहता है लेकिन गर्मी को बाहर निकाल देता है।

- In **two-phase cooling**, like water in a **mud pot**, the **coolant fluid** bubbles into **vapour**, rises to a **cooling coil**, **condenses**, drips down, and repeats the cycle.

टू-फेज कूलिंग में, जैसे मटके का पानी, कूलेंट फ्लूइड भाप में बदलता है, कूलिंग कॉइल में ऊपर जाता है, घनित होता है, टपकता है और यह चक्र दोहराता है।

- “These techs **cut corrosion**, **boost reliability**, and **slash carbon footprint** — all while **running silent without fans**,” the researchers wrote.



शोधकर्ताओं ने लिखा, "ये तकनीकें जंग को कम करती हैं, विश्वसनीयता बढ़ाती हैं, और कार्बन फुटप्रिंट घटाती हैं — और वो भी पंखे के बिना चुपचाप काम करते हुए।"

- Pioneers like **Microsoft** and **Alibaba** are already deploying these systems at scale. **Microsoft** और **Alibaba** जैसी अग्रणी कंपनियाँ इन प्रणालियों को व्यापक स्तर पर लागू कर रही हैं।

## Green or Just Less Dirty?

### हरित या केवल थोड़ा कम प्रदूषक?

- To truly **lower the carbon footprint** of cooling technologies, **scientists, policymakers, and lawmakers** must evaluate their **full impact**.  
कूलिंग तकनीकों का कार्बन फुटप्रिंट वास्तव में घटाने के लिए, वैज्ञानिकों, नीति निर्माताओं और कानून निर्माताओं को इनका समग्र प्रभाव समझना होगा।
- While the new solutions are **innovative**, they face **hurdles**.  
ये नई तकनीकें भले ही नवाचारपूर्ण हों, लेकिन इन्हें कई बाधाओं का सामना करना पड़ता है।
- **Coolant fluids** involve **different regulations**, and **complex designs** delay their deployment.  
कूलेंट फ्लूइड्स पर विभिन्न नियम लागू होते हैं और उनकी जटिल डिज़ाइन उन्हें लागू करने में देरी करती है।
- Using them is like **swapping plastic straws for paper**: they're **greener**, but **not without trade-offs**.  
इनका उपयोग प्लास्टिक स्ट्रॉ को कागज़ी स्ट्रॉ से बदलने जैसा है: ये अधिक हरित हैं लेकिन समस्याएँ भी साथ लाते हैं।
- The world might end up **trading one ecological problem for another**, possibly worse one.  
दुनिया एक पर्यावरणीय समस्या के बदले दूसरी, शायद ज्यादा गंभीर समस्या को ले सकती है।
- If **electricity** for an **electric car** comes from a **coal plant**, its **carbon footprint** is still high.  
अगर इलेक्ट्रिक कार की बिजली किसी कोयला संयंत्र से आती है, तो उसका कार्बन फुटप्रिंट फिर भी अधिक होता है।
- Similarly, **cooling gains** can **backfire** if **pollution** is just **shifted elsewhere**.  
इसी तरह, अगर प्रदूषण केवल स्थानांतरित होता है, तो कूलिंग के लाभ विफल हो सकते हैं।

## Life Cycle Assessment: Air, Cold-plate & Immersion Cooling

### लाइफ साइकिल मूल्यांकन: एयर, कोल्ड-प्लेट और इमर्सन कूलिंग

- The study team's **cradle-to-grave life cycle assessment** compared **air-cooled**, **cold-plate**, and **immersion cooling** across **emissions**, **energy**, and **water use**.



अध्ययन दल ने पैदाइश से नष्ट होने तक का मूल्यांकन करते हुए एयर कूल्ड, कोल्ड प्लेट, और इमर्सन कूलिंग की तुलना उत्सर्जन, ऊर्जा और जल उपयोग के संदर्भ में की।

- It showed that **sustainability** requires **systemic thinking**, not just **isolated fixes**. इसमें दिखाया गया कि स्थिरता के लिए समग्र सोच की जरूरत है, केवल स्थानीय समाधान पर्याप्त नहीं हैं।

## Twin Engines of a Green Data Centre

### हरित डेटा सेंटर के दो प्रमुख इंजन

- With **grid electricity, cold plates and immersion cooling** cut: ग्रिड बिजली के साथ, कोल्ड प्लेट और इमर्सन कूलिंग में कटौती होती है:
  - **Greenhouse gas emissions by more than 15%**  
ग्रीनहाउस गैस उत्सर्जन में 15% से अधिक की कमी
  - **Energy use by more than 15%**  
ऊर्जा उपयोग में 15% से अधिक की कमी
  - **Water consumption by more than 31%**  
जल खपत में 31% से अधिक की कमी
- With **100% renewable energy**, cuts can reach: 100% नवीकरणीय ऊर्जा के साथ, कटौती पहुँच सकती है:
  - **13% for emissions**  
उत्सर्जन में 13% की कमी
  - **15% for energy use**  
ऊर्जा उपयोग में 15% की कमी
  - **50% for water consumption**  
जल खपत में 50% की कमी
- “Switching to **renewables** slashes **emissions** by **85–90%**, **energy use** by **6–7%**, and **water demand** by **55–85%**, regardless of cooling tech,” researchers wrote. शोधकर्ताओं ने लिखा, “नवीकरणीय ऊर्जा पर स्विच करने से उत्सर्जन में 85–90%, ऊर्जा उपयोग में 6–7%, और जल मांग में 55–85% की कटौती होती है, चाहे कूलिंग तकनीक कोई भी हो।”
- Thus, **life cycle assessments** help identify **sustainability trade-offs** across or within cooling technologies. इस प्रकार, लाइफ साइकिल मूल्यांकन से कूलिंग तकनीकों के भीतर या उनके बीच स्थिरता के समझौते की पहचान होती है।
- Ultimately, the message is clear: **ICT’s climate future** depends on **how it cools its data centres**. अंततः, संदेश स्पष्ट है: आईसीटी का जलवायु भविष्य इस पर निर्भर करता है कि वह अपने डेटा सेंटर को कैसे ठंडा करता है।



# Regional rapid transit system



**Twin advantage:** RRTS trains combine speed with premium comfort. R. V. MOORTHY

GS Paper III: Transportation

## Champak Panda

As India's urban centres expand rapidly, innovative and sustainable transportation solutions become paramount. The regional rapid transit system (RRTS) promises to bridge the gap between conventional rail and high-speed networks. By seamlessly complementing intra-city metro networks, RRTS significantly reduces travel time, especially for residents of satellite cities, thereby enhancing quality of life. The system holds the potential to redefine urban mobility, unlock economic growth opportunities, and reshape the way people live and work in India's burgeoning megacities.

The Delhi-Ghaziabad-Meerut RRTS, also known as NaMo Bharat, is currently operational in its first phase – connecting Meerut and Ghaziabad to Delhi – and poised for significant expansion. With additional phases like Delhi-Alwar and Delhi-Panipat in the pipeline, the high-speed RRTS will cover over 8,000 sq km square on completion – more than double the current reach of Delhi Metro.

## Regional Rapid Transit System (RRTS)

### क्षेत्रीय त्वरित पारगमन प्रणाली (RRTS)

As India's urban centres expand rapidly, innovative and sustainable transportation solutions become increasingly important.

जैसे-जैसे भारत के शहरी केंद्र तेजी से बढ़ते हैं, वैसे-वैसे नवोन्मेषी और सतत परिवहन समाधानों की आवश्यकता बढ़ती जा रही है।

- The **regional rapid transit system (RRTS)** aims to bridge the gap between **conventional rail** and **high-speed rail networks**.

क्षेत्रीय त्वरित पारगमन प्रणाली (RRTS) का उद्देश्य पारंपरिक रेल और हाई-स्पीड रेल नेटवर्क के बीच की दूरी को कम करना है।

- It complements **intra-city metro networks** and **significantly reduces travel time**, especially for residents of **satellite cities**.

यह शहरी मेट्रो नेटवर्क के पूरक के रूप में कार्य करता है और विशेष रूप से उपग्रह शहरों के निवासियों के लिए यात्रा समय को काफी कम करता है।

- The system enhances **quality of life**, unlocks **economic growth opportunities**, and reshapes how people **live and work** in India's **megacities**.

यह प्रणाली जीवन की गुणवत्ता को बढ़ाती है, आर्थिक विकास के अवसर प्रदान करती है, और भारत के महानगरों में लोगों के जीवन और कार्य शैली को बदल देती है।

### Delhi-Ghaziabad-Meerut RRTS (NaMo Bharat)

#### दिल्ली-गाज़ियाबाद-मेरठ RRTS (नमो भारत)

- The **Delhi-Ghaziabad-Meerut RRTS**, also known as **NaMo Bharat**, is operational in its **first phase**.



दिल्ली-गाज़ियाबाद-मेरठ RRTS, जिसे नमो भारत के नाम से भी जाना जाता है, अपनी पहली चरण में चालू है।

- It connects Meerut and Ghaziabad to Delhi and is poised for significant expansion. यह मेरठ और गाज़ियाबाद को दिल्ली से जोड़ता है और इसके तेजी से विस्तार की योजना है।
- Upcoming phases include Delhi-Alwar and Delhi-Panipat, and once complete, the RRTS will cover over 8,000 sq km — more than double the current Delhi Metro network. आने वाले चरणों में दिल्ली-अलवर और दिल्ली-पानीपत शामिल हैं, और पूरा होने पर यह RRTS 8,000 वर्ग किलोमीटर से अधिक क्षेत्र को कवर करेगा – जो कि वर्तमान दिल्ली मेट्रो नेटवर्क से दोगुना है।

## Beyond Convenience

### सुविधा से आगे

- The RRTS goes beyond just commuter convenience and will impact India's urban landscape in multiple ways. RRTS केवल यात्रियों की सुविधा तक सीमित नहीं है, बल्कि यह भारत के शहरी परिदृश्य को कई तरीकों से प्रभावित करेगा।
- By connecting urban centres with peripheral regions, it promotes balanced regional development and employment opportunities outside major cities. यह शहरी केंद्रों को आसपास के क्षेत्रों से जोड़कर संतुलित क्षेत्रीय विकास और नौकरी के अवसरों को बढ़ावा देता है।
- As an alternative to private vehicles, RRTS helps reduce traffic congestion and environmental pollution, supporting a greener future. यह निजी वाहनों का विकल्प बनकर यातायात भीड़ और पर्यावरण प्रदूषण को कम करता है, जिससे हरित भविष्य की दिशा में कदम बढ़ता है।

## High-Speed Innovation

### हाई-स्पीड नवाचार

- RRTS trains reach speeds of up to 180 kmph, using aerodynamic stainless-steel design. RRTS ट्रेनों की गति 180 किमी प्रति घंटा तक पहुंचती है, जो कि एयरोडायनामिक स्टेनलेस स्टील डिज़ाइन का उपयोग करती हैं।
- Coaches offer spacious air-conditioning, ergonomic cushioned seats, luggage space, charging ports, and real-time information displays. डिब्बों में विस्तृत वातानुकूलन, आरामदायक कुशन वाली सीटें, सामान रखने की जगह, चार्जिंग सुविधा, और रीयल-टाइम जानकारी डिस्प्ले उपलब्ध हैं।



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

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- **High-speed Internet** is available for free, and **onboard vending machines** provide **refreshments and travel essentials**.

यात्रियों के लिए फ्री हाई-स्पीड इंटरनेट उपलब्ध है, और वेंडिंग मशीनें ताज़गी देने वाले पदार्थ और यात्रा आवश्यकताएं प्रदान करती हैं।

- These features transform commuting into a **productive** and **comfortable** experience. ये सुविधाएं यात्रा को **उपयोगी** और **आरामदायक** अनुभव में बदल देती हैं।

## Tech-Driven Safety

### प्रौद्योगिकी आधारित सुरक्षा

- RRTS employs **cutting-edge technologies** to ensure **safety, reliability, and efficiency in operations**.

RRTS अपने संचालन में उन्नत प्रौद्योगिकियों का उपयोग करती है जिससे सुरक्षा, विश्वसनीयता, और दक्षता सुनिश्चित हो सके।

- **ETCS L3 hybrid technology over LTE** enhances **safety** and supports **interoperability** between different rail systems.

**ETCS L3 हाइब्रिड तकनीक (LTE पर आधारित) सुरक्षा** को बढ़ाती है और विभिन्न रेल प्रणालियों के बीच इंटरऑपरेबिलिटी की सुविधा देती है।

- Future plans include **automated train operation (ATO) over LTE**, boosting **performance and capacity**.

भविष्य की योजनाओं में **LTE पर आधारित स्वचालित ट्रेन संचालन (ATO)** शामिल है, जिससे नेटवर्क की प्रदर्शन क्षमता और क्षमता दोनों में वृद्धि होगी।

- Smart technology enables **real-time monitoring, predictive maintenance, and ensures seamless travel** with minimal disruptions.

स्मार्ट तकनीक **रीयल-टाइम निगरानी, पूर्वानुमानित रखरखाव, और बिना व्यवधान के यात्रा** सुनिश्चित करती है।

- Integration with systems like **metro and buses** — such as **NaMo Bharat's integration with Meerut Metro** — ensures a **hassle-free commute**.

**मेट्रो और बस प्रणाली जैसे नेटवर्क से एकीकृत होना** — जैसे कि **नमो भारत का मेरठ मेट्रो** के साथ — यात्रियों के लिए **सुविधाजनक यात्रा सुनिश्चित** करता है।

## TOPICS COVERED (PCS Special)

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## 1. PSG blazes past Inter Milan to win its maiden Champions League title

PSG ने इंटर मिलान को हराकर अपनी पहली चैंपियंस लीग खिताबी जीत दर्ज की

## 2. Piastri leads McLaren's one-two finish

पियास्त्री ने मैकलेरन की एक-दो जीत का नेतृत्व किया

# PSG blazes past Inter Milan to win its maiden **Champions League** title

Doue is the hero of the night with an assist and two goals; Hakimi, Kvaratskhelia and Mayulu also get on the scoresheet

PCS

### FOOTBALL

Agence France-Presse  
MUNICH

**P**aris Saint-Germain won the Champions League for the first time as Luis Enrique's brilliant young side outclassed Inter Milan on Saturday in the most one-sided final ever with teenager Desire Doue scoring twice in an astonishing 5-0 victory. Doue supplied the pass for Achraf Hakimi to give PSG an early lead and the 19-year-old went from provider to finisher as his deflected shot doubled the advantage in the 20th minute.

Doue scored again just after the hour mark, ending any doubt about the

outcome before Khvicha Kvaratskhelia ran away to get the fourth and substitute Senny Mayulu, another teenager, made it five.

Inter was simply no match for the French club, which recorded the biggest victory by any team in the final in the 70-year history of the European Cup and Champions League.

"This means everything. It's our dream. It's incredible. The result is not by magic. I'm happy we did it like this," said PSG's Portuguese midfielder Vitorinha.

PSG's triumph follows over a decade of huge investment from its Qatari owners, and comes five years after it lost to Bayern Munich in its only previous final appearance.

Already domestic

league and cup double winners, it is just the second French winner of European football's biggest prize – Marseille was the first in 1993, when it beat AC Milan in a final also played in Munich.

It is also a second Champions League for PSG coach Luis Enrique, who won with Barcelona in 2015.

For a bewildered Inter, there was to be no first Champions League title since 2010 as it failed to add to its three previous triumphs in the competition. It ends the campaign trophyless, and its ageing side will need to be rebuilt.

**The result:** Paris Saint-Germain 5 (Hakimi 12, Doue 20, 63, Kvaratskhelia 73, Mayulu 86) bt Inter Milan 0.



**Target achieved:** PSG's players finally celebrate winning the ultimate prize in European club football. AP

## PSG blazes past Inter Milan to win its maiden Champions League title

PSG ने इंटर मिलान को हराकर अपनी पहली चैंपियंस लीग खिताबी जीत दर्ज की



**Paris Saint-Germain (PSG) won the Champions League for the first time, with Luis Enrique's young team delivering a dominant performance against Inter Milan on Saturday.**

**पेरिस सेंट-जर्मन (PSG) ने शनिवार को इंटर मिलान के खिलाफ शानदार प्रदर्शन करते हुए पहली बार चैंपियंस लीग जीती।**

- **Teenager Desire Doue** was the **star performer**, scoring **two goals** and assisting one. **किशोर खिलाड़ी डेज़ायर डू ने दो गोल किए और एक में सहायता की, वे मैच के हीरो रहे।**
- Doue assisted **Achraf Hakimi** to give PSG an **early lead**, and then his **deflected shot** in the **20th minute** made it 2-0.  
डू ने अक्राफ हकीमी को पास देकर PSG को **जल्दी बढ़त** दिलाई और फिर **20वें मिनट** में उनके **डिफ्लेक्टेड शॉट** से स्कोर 2-0 हुआ।
- After the **hour mark**, Doue scored again, removing any doubt about the outcome. **एक घंटे के बाद डू ने एक और गोल कर जीत को सुनिश्चित कर दिया।**
- **Khvicha Kvaratskhelia** scored the **fourth goal**, and **teenager Senny Mayulu** added the **fifth** as a substitute.  
**ख्वीचा क्वारात्सखेलिया ने चौथा गोल किया और किशोर खिलाड़ी सेनी मायूलू ने पाँचवां गोल बतौर सब्स्टीट्यूट किया।**
- **Inter Milan** was completely **outclassed**, suffering a **5-0 defeat** — the **biggest margin** in a **Champions League final** in the tournament's **70-year history**.  
**इंटर मिलान पूरी तरह से हार गया, उसे 5-0 से हराया गया — जो कि 70 वर्षों के चैंपियंस लीग इतिहास की सबसे बड़ी हार है।**
- PSG midfielder **Vitinha** called the win "**incredible**" and said, "**This means everything. It's our dream.**"  
PSG के मिडफील्डर **विटिन्हा** ने जीत को "**अविश्वसनीय**" बताया और कहा, "**यह हमारे लिए सब कुछ है, यह हमारा सपना था।**"
- This victory comes after **over a decade** of **heavy investment** by PSG's **Qatari owners**. यह जीत PSG के **कतरी मालिकों** द्वारा **एक दशक से अधिक समय तक भारी निवेश** के बाद मिली है।
- PSG had **previously lost** the final to **Bayern Munich** in **2020**.  
PSG **2020** में **बायर्न म्यूनिख** से **फाइनल हार चुका था।**
- PSG had already won the **domestic league and cup double** this season.  
PSG इस सीज़न में पहले ही **घरेलू लीग और कप डबल** जीत चुका है।
- It becomes only the **second French club** to win the **Champions League**, after **Marseille**, which won in **1993**.  
यह **फ्रांस का दूसरा क्लब** है जिसने **चैंपियंस लीग** जीती है, पहला था **मार्सिले**, जिसने **1993** में जीत दर्ज की थी।
- Coach **Luis Enrique** won his **second Champions League title** — his first was with **Barcelona** in **2015**.





यह ओवरटेक रेस की मुख्य चर्चा का विषय बन गया, क्योंकि अंततः वस्टापेन को पांचवें स्थान से दसवें स्थान पर घटा दिया गया।

- **George Russell of Mercedes ended in fourth place** after being allowed through by Verstappen, who followed his team's orders but did so reluctantly.

मर्सिडीज़ के जॉर्ज रसेल ने चौथे स्थान पर रेस पूरी की, जब वस्टापेन ने टीम के आदेशों का पालन करते हुए उन्हें आगे निकलने दिया, हालांकि वह ऐसा अनिच्छा से कर रहे थे।

## Race Results

### रेस के नतीजे

- **Oscar Piastri (McLaren)** finished first with a total time of **1h:32m:57.375s**, followed by **Lando Norris (McLaren)** who was **2.471 seconds** behind. **Charles Leclerc (Ferrari)** came in third, **10.455 seconds** behind the leader. **George Russell (Mercedes)** followed closely at **11.359s**, while **Nico Hulkenberg (Stake F1)** took fifth at **13.648s**.

ऑस्कर पियास्त्री (मैकलेरन) ने 1घं:32मि:57.375से के समय के साथ पहला स्थान हासिल किया, जबकि लैंडो नॉरिस (मैकलेरन) उनसे 2.471 सेकंड पीछे रहे। चार्ल्स लेक्लर (फेरारी) 10.455 सेकंड पीछे रहते हुए तीसरे स्थान पर रहे। जॉर्ज रसेल (मर्सिडीज़) 11.359 सेकंड, और निको हुल्केनबर्ग (स्टेक एफ1) 13.648 सेकंड पर रहे।

- The next five places were taken by **Lewis Hamilton (Ferrari)** at **15.508s**, **Isack Hadjar (Racing Bulls)** at **16.022s**, **Pierre Gasly (Alpine)** at **17.882s**, **Fernando Alonso (Aston Martin)** at **21.564s**, and **Max Verstappen (Red Bull)** at **21.826s**.

अगले पाँच स्थानों पर लुईस हैमिल्टन (फेरारी) 15.508 सेकंड, इज़ैक हाजार (रेसिंग बुल्स) 16.022 सेकंड, पियरे गैसली (आल्पाइन) 17.882 सेकंड, फर्नांडो अलोंसो (एस्टन मार्टिन) 21.564 सेकंड, और मैक्स वस्टापेन (रेड बुल) 21.826 सेकंड पर रहे।

- Other finishers included **Liam Lawson (Racing Bulls)** at **25.532s**, **Gabriel Bortoleto (Stake F1)** at **25.996s**, **Yuki Tsunoda (Red Bull)** at **28.822s**, **Carlos Sainza (Williams)** at **29.309s**, **Franco Colapinto (Alpine)** at **31.381s**, **Esteban Ocon (Haas)** at **32.197s**, and **Oliver Bearman (Haas)** at **37.065s**.

अन्य ड्राइवरों में लियाम लॉसन (रेसिंग बुल्स) 25.532 सेकंड, गेब्रियल बोरतेलेतो (स्टेक एफ1) 25.996 सेकंड, युकी त्सुनोदा (रेड बुल) 28.822 सेकंड, कार्लोस सैनजा (विलियम्स) 29.309 सेकंड, फ्रैंको कोलापिंटो (आल्पाइन) 31.381 सेकंड, एस्टेबन ओकोन (हास) 32.197 सेकंड, और ओलिवर बेयरमैन (हास) 37.065 सेकंड पर रेस पूरी की।

- **Antonelli (Mercedes)** and **Albon (Williams)** did not finish the race, while **Stroll (Aston Martin)** did not start.

एंटोनेली (मर्सिडीज़) और एल्बन (विलियम्स) रेस पूरी नहीं कर सके, जबकि स्ट्रॉल (एस्टन मार्टिन) ने रेस की शुरुआत ही नहीं की।



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

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

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## Championship Standings – Drivers

### चैंपियनशिप स्टैंडिंग – ड्राइवर्स

- After the Spanish Grand Prix, **Oscar Piastri** leads the standings with **186 points**, followed by **Lando Norris** with **176 points**. **Max Verstappen** is third with **137 points**, **George Russell** is fourth with **111 points**, and **Charles Leclerc** is fifth with **94 points**. स्पेनिश ग्रां प्री के बाद, ऑस्कर पियास्त्री 186 अंकों के साथ पहले स्थान पर हैं, जबकि लैंडो नॉरिस 176 अंकों के साथ दूसरे स्थान पर हैं। मैक्स वर्स्टापेन 137 अंकों के साथ तीसरे, जॉर्ज रसेल 111 अंकों के साथ चौथे और चार्ल्स लेक्लर 94 अंकों के साथ पाँचवें स्थान पर हैं।

## Championship Standings – Constructors

### चैंपियनशिप स्टैंडिंग – कंस्ट्रक्टर्स

In the team rankings, **McLaren** leads with **362 points**, followed by **Ferrari** with **165 points**, **Mercedes** with **159 points**, **Red Bull** with **144 points**, and **Williams** with **54 points**. टीम रैंकिंग में, मैकलेरन 362 अंकों के साथ पहले स्थान पर है, इसके बाद फेरारी 165 अंकों, मर्सिडीज़ 159 अंकों, रेड बुल 144 अंकों, और विलियम्स 54 अंकों के साथ पीछे हैं।