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# PATRIOTIC IAS

THE HINDU NEWSPAPER

DAILY CURRENT AFFAIRS

07 APRIL 2025

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07\_04\_2025 DAILY CURRENT AFFAIRS

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

1. Karnataka should hold talks with T.N. on Mekedatu project

कर्नाटक को मेकेदाटू परियोजना पर तमिलनाडु से बातचीत करनी चाहिए

2. Hadean protocrust: hot and hellish

हैडियन प्रोटोक्रस्ट: गर्म और नरक जैसा

3. Three billion people cannot afford a healthy diet

तीन अरब लोग एक स्वस्थ आहार का खर्च वहन नहीं कर सकते

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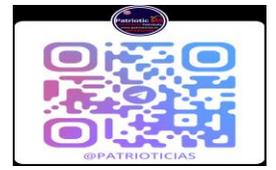
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#### 4. Torrential rain kills around 30 people in DR Congo's capital

डीआर कांगो की राजधानी में मूसलाधार बारिश से लगभग 30 लोगों की मौत

#### 5. Iran top diplomat rejects Trump's demand for direct nuclear talks

ईरान के शीर्ष राजनयिक ने ट्रंप की प्रत्यक्ष परमाणु वार्ता की मांग को खारिज किया

## 'Karnataka should hold talks with T.N. on Mekedatu project'

GS Paper I: Rivers

The Hindu Bureau

BELAGAVI

Basavaraja Bommai, MP and former Karnataka Chief Minister, on Sunday said that the State should hold talks with Tamil Nadu and resolve the deadlock over the Mekedatu project.

"The Congress leaders who are ruling the State today held a padayatra for Mekedatu a few years ago. It is time for them to show political will for the project implementation now. The government should talk to the DMK government in

Tamil Nadu and resolve the issue," he told reporters in Haveri on Sunday.

"Their [Congress] ally DMK is in power in Tamil Nadu. Just five minutes of dialogue with them could resolve the issue," Mr. Bommai said.

He said that the Centre had already approved the Detailed Project Report for the Kalasa-Banduri nala projects. "Environmental clearance will be granted very soon. The Yettinahole project does not require any approval from the Centre," he added.

Karnataka should hold talks with T.N. on Mekedatu project

कर्नाटक को मेकेदाटू परियोजना पर तमिलनाडु से बातचीत करनी चाहिए

Basavaraja Bommai, MP and former Karnataka Chief Minister, on Sunday said that the State should hold talks with Tamil Nadu and resolve the deadlock over the Mekedatu project.

बसवराज बोम्मई, सांसद और पूर्व कर्नाटक के मुख्यमंत्री, ने रविवार को कहा कि राज्य को तमिलनाडु से बातचीत करनी चाहिए और मेकेदाटू परियोजना पर गतिरोध को सुलझाना चाहिए।

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• “The **Congress leaders** who are ruling the State today held a **padayatra for Mekedatu** a few years ago.

“कांग्रेस नेता, जो आज राज्य में सत्ता में हैं, ने कुछ साल पहले मेकेदाटू के लिए पदयात्रा की थी।

• It is time for them to show **political will** for the project implementation now. The government should talk to the **DMK government in Tamil Nadu** and resolve the issue,” he told reporters in **Haveri** on Sunday.

अब समय आ गया है कि वे इस परियोजना के कार्यान्वयन के लिए **राजनीतिक इच्छाशक्ति** दिखाएं। सरकार को **तमिलनाडु में डीएमके सरकार** से बात करनी चाहिए और इस मुद्दे को सुलझाना चाहिए,” उन्होंने **हावेरी** में रविवार को पत्रकारों से कहा।

• “Their [Congress] **ally DMK** is in power in Tamil Nadu. Just **five minutes of dialogue** with them could resolve the issue,” Mr. Bommai said.

“उनके (कांग्रेस के) सहयोगी डीएमके तमिलनाडु में सत्ता में हैं। उनसे सिर्फ पांच मिनट की बातचीत से यह मुद्दा सुलझ सकता है,” श्री बोम्मई ने कहा।

• He said that the **Centre** had already approved the **Detailed Project Report (DPR)** for the **Kalasa-Banduri nala projects**.

उन्होंने कहा कि केंद्र ने पहले ही **कलसा-बंडूरी नाला परियोजनाओं** की विस्तृत परियोजना रिपोर्ट (डीपीआर) को मंजूरी दे दी है।

• “**Environmental clearance** will be granted **very soon**. The **Yettinahole project** does not require any approval from the Centre,” he added.

“पर्यावरणीय मंजूरी बहुत जल्द दी जाएगी। **यतिनहोले परियोजना** के लिए केंद्र से किसी अनुमति की आवश्यकता नहीं है,” उन्होंने जोड़ा।

### Mekedatu Project

#### मेकेदाटू परियोजना

- The Mekedatu Project is a proposed **multipurpose initiative** by the **Karnataka government** to construct a **balancing reservoir** across the **Cauvery River** near Mekedatu, aiming to provide **drinking water to Bengaluru** and generate **hydroelectric power**.
- मेकेदाटू परियोजना **कर्नाटक सरकार** की एक प्रस्तावित **बहुउद्देशीय पहल** है, जिसके तहत **कावेरी नदी** पर मेकेदाटू के पास एक **संतुलन जलाशय** बनाया जाएगा। इसका उद्देश्य **बेंगलुरु को पीने का पानी** उपलब्ध कराना और **जलविद्युत उत्पादन** करना है।



## Geographical Location

### भौगोलिक स्थान

- Meaning "goat's leap" in Kannada, Mekedatu is a **deep gorge** located at the **confluence of the Cauvery and Arkavathi rivers** in **Ramanagara district, Karnataka**.  
कन्नड़ में "बकरी की छलांग" का अर्थ रखने वाला मेकेदाटू, कर्नाटक के रामनगर जिले में **कावेरी और अर्कावती नदियों के संगम पर स्थित एक गहरी घाटी है।**
- **Proximity:** It is located approximately **90 km from Bengaluru** and about **4 km from the Tamil Nadu border**.  
निकटता: यह स्थान **बेंगलुरु से लगभग 90 किमी और तमिलनाडु की सीमा से लगभग 4 किमी दूर स्थित है।**

## Project Details

### परियोजना का विवरण

- **Components:**
  - **Balancing Reservoir:** Intended to **regulate water flow** and ensure a **steady supply**.  
संतुलन जलाशय: इसका उद्देश्य जल प्रवाह को नियंत्रित करना और निरंतर आपूर्ति सुनिश्चित करना है।
  - **Hydroelectric Power Plant:** Designed to generate approximately **400 MW of electricity**.  
जलविद्युत संयंत्र: इसे लगभग **400 मेगावाट बिजली** उत्पन्न करने के लिए डिज़ाइन किया गया है।
- **Objectives:**
  - **Drinking Water Supply:** Provide around **4.75 TMC (thousand million cubic feet)** of water annually to **Bengaluru and surrounding regions**.  
पीने के पानी की आपूर्ति: प्रतिवर्ष लगभग **4.75 टीएमसी (हज़ार मिलियन क्यूबिक फीट)** पानी **बेंगलुरु और आस-पास के क्षेत्रों** को प्रदान करना।
  - **Power Generation:** Harness **renewable energy** to produce **400 MW of hydroelectric power**.  
बिजली उत्पादन: **नवीकरणीय ऊर्जा** का उपयोग कर **400 मेगावाट जलविद्युत** उत्पन्न करना।
- **Estimated Cost:** The project is estimated to cost approximately **₹9,000 crore**.  
अनुमानित लागत: इस परियोजना की अनुमानित लागत **लगभग ₹9,000 करोड़ है।**



## Historical Background

### ऐतिहासिक पृष्ठभूमि

- The concept of the Makedatu Project has been under consideration for several years to address **Bengaluru's growing water needs and energy demands.**

मेकेदाटू परियोजना की अवधारणा कई वर्षों से विचाराधीन है ताकि बेंगलुरु की बढ़ती जल आवश्यकताओं और ऊर्जा मांगों को पूरा किया जा सके।

- Cauvery Water Dispute:** The **Cauvery River** has been a **longstanding point of contention** between **Karnataka and Tamil Nadu**, with disputes over **water sharing** dating back to the **early 20th century.**

कावेरी जल विवाद: कर्नाटक और तमिलनाडु के बीच कावेरी नदी लंबे समय से विवाद का विषय रही है, जिसमें जल बंटवारे को लेकर विवाद 20वीं सदी की शुरुआत से चला आ रहा है।

## Current Status and Recent Developments

### वर्तमान स्थिति और हालिया घटनाक्रम

- Preparatory Work:** As of **early 2025**, the Karnataka government has completed **preparatory activities** and is awaiting necessary **clearances from central authorities.**

तैयारी कार्य: 2025 की शुरुआत तक कर्नाटक सरकार ने तैयारी गतिविधियाँ पूरी कर ली हैं और केंद्र सरकार से आवश्यक मंजूरी की प्रतीक्षा कर रही है।

- Inter-State Dispute:** **Tamil Nadu** has expressed **strong opposition**, fearing **adverse impacts** on its **water share.** The Tamil Nadu government has pledged to **prevent Karnataka** from proceeding with the project.

अंतर-राज्यीय विवाद: तमिलनाडु ने इस परियोजना का कड़ा विरोध जताया है, क्योंकि इससे उसके जल हिस्से पर प्रतिकूल प्रभाव पड़ने की आशंका है। तमिलनाडु सरकार ने इसे रोकने का संकल्प लिया है।

- Central Government Involvement:** Karnataka has **sought approval** from the **Union government**, emphasizing the project's **benefits for drinking water supply** and **power generation.**

केंद्र सरकार की भूमिका: कर्नाटक ने केंद्र सरकार से मंजूरी मांगी है और इस परियोजना के पेयजल आपूर्ति और बिजली उत्पादन में लाभ को प्रमुखता से प्रस्तुत किया है।

## Environmental and Social Considerations

### पर्यावरणीय और सामाजिक विचार

- Forest Land Submersion:** The project is expected to **submerge approximately 5,096 hectares** of **forest land**, necessitating the **identification of alternative land** for compensation.



वन भूमि का डूबना: इस परियोजना से लगभग 5,096 हेक्टेयर वन भूमि डूबने की संभावना है, जिसके लिए वैकल्पिक भूमि की पहचान कर मुआवजा देना आवश्यक होगा।

- **Displacement:** There may be **displacement of local communities**, which will require **careful planning and rehabilitation measures**.

विस्थापन: इस परियोजना से स्थानीय समुदायों का विस्थापन हो सकता है, जिसके लिए सुनियोजित योजना और पुनर्वास उपायों की आवश्यकता होगी।

### Implications

#### परिणाम/प्रभाव

- **For Karnataka:**
  - **Water Security:** Enhances **drinking water availability** for **Bengaluru's growing population**.  
कर्नाटक के लिए: जल सुरक्षा: यह बेंगलुरु की बढ़ती जनसंख्या के लिए पेयजल उपलब्धता में वृद्धि करता है।
  - **Energy Production:** Contributes to the state's **renewable energy capacity**.  
ऊर्जा उत्पादन: यह राज्य की नवीकरणीय ऊर्जा क्षमता में योगदान देता है।
- **For Tamil Nadu:**
  - **Water Availability Concerns:** There are **apprehensions about reduced water flow** affecting **agriculture and livelihoods downstream**.  
तमिलनाडु के लिए: जल उपलब्धता की चिंता: नदी के बहाव में कमी से कृषि और निचले क्षेत्रों की आजीविका पर प्रभाव पड़ने की आशंका है।

### Cauvery Water Dispute

#### (कावेरी जल विवाद)

- The **Cauvery Water Dispute** is one of India's **longest-running and most contentious inter-state river water disputes**, primarily involving the states of **Karnataka, Tamil Nadu, Kerala, and Puducherry**.
- The conflict arises from the **allocation and sharing of the waters of the Cauvery River**, which flows from **Karnataka (origin: Talakaveri, Coorg)** through **Tamil Nadu** and into the **Bay of Bengal**, passing through **Puducherry**.
- **Length:** Approximately **802 km**
- **Origin:** **Talakaveri, Western Ghats, Karnataka**

### Historical Background



- The **Cauvery dispute** dates back to the **British colonial period**, with two agreements signed in **1892** and **1924** between the then **Madras Presidency and the Mysore Kingdom**.
- These agreements governed water sharing but were seen by **Karnataka as favouring Tamil Nadu**.
- The **1924 agreement** was set for **50 years**, expiring in **1974**, after which the dispute escalated.

## Major Legal Developments

### Cauvery Water Disputes Tribunal (CWDT) – 1990

- **Established** by the **Government of India** under the **Inter-State Water Disputes Act, 1956** on **June 2, 1990**.
- It aimed to adjudicate the dispute after multiple failed negotiations.
- **Final Award (2007):**
  - **Tamil Nadu: 419 TMC**
  - **Karnataka: 270 TMC**
  - **Kerala: 30 TMC**
  - **Puducherry: 7 TMC**
- The tribunal also ordered the **establishment of a Cauvery Management Board (CMB)** to ensure implementation.

### Supreme Court Verdict – 2018

- On **February 16, 2018**, the **Supreme Court of India** delivered its **final judgment**:
  - **Karnataka's share increased to 284.75 TMC**
  - **Tamil Nadu's share reduced to 404.25 TMC**
  - **Kerala retained 30 TMC, and Puducherry 7 TMC**
- The Court directed the **Union Government** to form the **Cauvery Water Management Authority (CWMA)** and **Cauvery Water Regulation Committee (CWRC)**.



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- These bodies are responsible for the **monitoring and regulation of water release**.

## Institutions Involved

### Cauvery Water Management Authority (CWMA)

- **Constituted: June 1, 2018**, by the **Ministry of Jal Shakti**, Government of India.
- **Purpose:** To ensure **implementation** of the **Supreme Court's order** on water sharing.
- It includes representatives from **Karnataka, Tamil Nadu, Kerala, and Puducherry**.

### Cauvery Water Regulation Committee (CWRC)

- A **technical body** under **CWMA** that **monitors rainfall, inflows, and water release** from reservoirs.

## Current Status (As of 2024–25)

- **Tamil Nadu** continues to demand **regular water release** during distress years and **better compliance** by Karnataka.
- **Karnataka** often **delays release** citing **low rainfall and water scarcity**.
- In **August 2023**, Tamil Nadu moved the Supreme Court against Karnataka's refusal to release water.
- In **September 2023**, the **CWMA** ordered Karnataka to release **5000 cusecs/day** for 15 days, triggering **protests in Karnataka**.

## Key Issues in the Dispute

- **Asymmetrical Rainfall:** Karnataka, being an **upper riparian state**, depends on **Southwest Monsoon**, while Tamil Nadu, a **lower riparian**, depends on **regulated release**.
- **No Consensus on Distress Year Formula:** The states have **disagreed** on how to **share water in drought years**.
- **Delay in Implementation:** Despite SC and tribunal orders, there have been **implementation delays**, leading to **frequent litigation**.

## Recent Updates

- **December 2023:** Central government emphasized **the need for long-term solutions** like **reservoir optimization, cropping pattern changes, and real-time data sharing**.



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- **January 2024:** Tamil Nadu requested **Union intervention** as Karnataka cited **deficient monsoon** to delay water release.

- **March 2024:** CWMA started using **satellite data and AI tools** for real-time water use tracking in the Cauvery basin.

## Implications

### For Tamil Nadu

- Vital for **Delta agriculture**, especially for **paddy cultivation**.
- **Water stress during summer and poor monsoons** intensifies **farm distress and social tensions**.

### For Karnataka

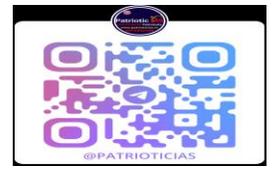
- Urban centres like **Bengaluru** also face **drinking water challenges**.
- Need to **balance irrigation, hydropower, and urban water supply**.

## Constitutional & Legal Framework

- **Article 262** of the Indian Constitution: Empowers Parliament to **adjudicate inter-state river water disputes** and **bar courts from jurisdiction** on such matters.
- **Inter-State River Water Disputes Act, 1956:** Provides the legal basis for establishing tribunals like CWDT.

## Important Terms and Concepts

- **Riparian State:** A state through which or along the borders of a river flows.
- **Distress Sharing Formula:** A pre-decided agreement on **sharing reduced water during droughts**, which **doesn't exist yet for Cauvery**.
- **Cusecs:** A unit of flow rate, **cubic feet per second**, commonly used in river water measurements.



# Hadean protocrust: hot and hellish

**GS Paper I:  
Geography**

The Hadean protocrust is the name for the earth's crust — its outermost layer — when it first formed. The 'Hadean' prefix refers to the planet's first geologic aeon. At this time, within 200 million years of its genesis, the earth's surface was partially molten and almost constantly bombarded by rocks from space. As many volcanoes also raged, the surface was very hot and hellish.

As parts of the magma ocean cooled, the first pieces of the crust began to take shape. It was still somewhat flaky, with some parts sloughing off and new parts solidifying. The thicker parts of the crust slowly formed the first continents, which moved like plates on the asthenospheric mantle, a layer of hot, gooey rock going 400 km down.

The plates soon began drifting into each other, sometimes sliding over, sometimes diving under. Such plate tectonics have left unique chemical signatures in the crust over millennia. In fact, scientists have understood the history of plate tectonics by studying these signatures.



A representative illustration of the earth's Hadean protocrust as it took shape. IMAGE CREATED WITH CHATGPT

A new study by an international team of researchers led by Macquarie University in Australia has now called this assumption into question. The researchers have reported that the signatures scientists have associated with plate tectonics actually existed in the Hadean protocrust, before the plates began to subduct, calling an important tenet of geology into question.

The study, which used a combination of models and lab studies, will have to be validated by independent research.

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**Hadean protocrust:  
hot and hellish**

**हैडियन प्रोटोक्रस्ट: गर्म  
और नरक जैसा**

**The Hadean protocrust  
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**हैडियन प्रोटोक्रस्ट उस समय  
की पृथ्वी की परत — यानी  
उसकी सबसे बाहरी परत —  
का नाम है जब वह पहली बार  
बनी थी।**

• The 'Hadean' prefix refers to the planet's **first geologic aeon**. 'हैडियन' उपसर्ग पृथ्वी के पहले भूवैज्ञानिक युग को दर्शाता है।

• At this time, within **200 million years** of its genesis, the **earth's surface was partially molten and almost constantly bombarded by rocks from space**.

इस समय, इसके निर्माण के 200

मिलियन वर्षों के भीतर, पृथ्वी की सतह आंशिक रूप से पिघली हुई थी और लगातार अंतरिक्ष से चट्टानों की बमबारी हो रही थी।

• As many **volcanoes** also raged, the **surface was very hot and hellish**.

चूंकि कई **ज्वालामुखी** भी फटे, सतह बेहद गर्म और नरक जैसी थी।

• As parts of the **magma ocean** cooled, the **first pieces of the crust began to take shape**.

जैसे-जैसे **मैग्मा महासागर** के हिस्से ठंडे हुए, **क्रस्ट के पहले टुकड़े** आकार लेने लगे।



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

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

**CONTACT: 9971932488**



- It was still somewhat **flaky**, with some parts **sloughing off** and new parts **solidifying**.  
यह अब भी थोड़ा भुरभुरा था, कुछ हिस्से गिरते थे और कुछ ठोस हो जाते थे।
- The **thicker parts of the crust** slowly formed the **first continents**, which moved like **plates on the asthenospheric mantle**, a layer of **hot, gooey rock going 400 km down**.  
क्रस्ट के मोटे हिस्सों ने धीरे-धीरे पहले महाद्वीपों का निर्माण किया, जो 400 किमी नीचे तक फैली गर्म और चिपचिपी चट्टान की परत एस्थेनोस्फेरिक मैटल पर प्लेटों की तरह हिलते थे।
- The **plates soon began drifting into each other**, sometimes **sliding over**, sometimes **diving under**.  
ये प्लेटें जल्द ही एक-दूसरे से टकराने लगीं, कभी ऊपर से फिसलतीं, कभी नीचे धंसतीं।
- Such **plate tectonics** have left **unique chemical signatures** in the crust over **millennia**.  
ऐसी प्लेट टेक्टॉनिक्स ने हजारों वर्षों में क्रस्ट में अद्वितीय रासायनिक चिन्ह छोड़ दिए हैं।
- In fact, scientists have understood the **history of plate tectonics** by studying these **signatures**.  
वास्तव में, वैज्ञानिकों ने इन चिन्हों का अध्ययन करके प्लेट टेक्टॉनिक्स का इतिहास समझा है।
- A **new study** by an **international team of researchers** led by **Macquarie University in Australia** has now called this **assumption into question**.  
ऑस्ट्रेलिया की मैक्वारी यूनिवर्सिटी के नेतृत्व में वैज्ञानिकों की एक अंतरराष्ट्रीय टीम द्वारा किया गया नया अध्ययन अब इस धारणा पर सवाल उठा रहा है।
- The researchers have reported that the **signatures** scientists have associated with **plate tectonics** actually existed in the **Hadean protocrust**, before the plates began to **subduct**, calling an important **tenet of geology** into question.  
शोधकर्ताओं ने बताया कि वैज्ञानिकों द्वारा प्लेट टेक्टॉनिक्स से जोड़े गए चिन्ह वास्तव में हैडियन प्रोटोक्रस्ट में मौजूद थे, इससे पहले कि प्लेटें धंसना शुरू करतीं, जिससे भूविज्ञान के एक महत्वपूर्ण सिद्धांत पर सवाल खड़ा हो गया।
- The study, which used a **combination of models and lab studies**, will have to be **validated by independent research**.  
इस अध्ययन, जिसमें मॉडलों और प्रयोगशाला अध्ययनों का संयोजन किया गया है, को स्वतंत्र शोध द्वारा सत्यापित करना होगा।



## Three billion people cannot afford a healthy diet

A healthy, nutritious diet is much more expensive than a calorie sufficient one. As a result, three billion people cannot afford a healthy diet

### GS Paper I: Poverty and Hunger

#### DATA POINT

Hannah Ritchie & Pablo Rosado

A healthy diet is about much more than calories: we need a wide range of nutrient-dense foods to get all the vitamins and minerals that are essential for good health. In this piece, we look at the costs of diets around the world. Healthy diets are expensive – more than four times the cost of a basic, calorie-sufficient one. This is true in every country in the world. As a result, three billion people cannot afford a healthy diet, even if they spend most of their income on food.

Being able to eat a healthy, nutritious diet is one of our most basic human needs. Yet billions of people go without it; they suffer from 'hidden hunger', micronutrient deficiencies such as too little iron, calcium, vitamin A, or iodine.

There are many reasons why someone might not eat a nutritious diet. Often it's because people cannot afford to. First, consider the most basic requirement: getting enough calories. These could come in any form, but the cheapest option in most countries is starchy foods and cereals. Living on this 'energy sufficient' diet would mean eating only maize flour or rice for every meal, a diet that is severely lacking all other important nutrients. In terms of diets in poor countries, people get most of their calories from starchy foods.

A person can eat an energy sufficient diet on less than \$1 a day, as per a study for the Food and Agricultural Organization's 'The State of Food Security and Nutrition in the World' report. What does this mean for the affordability of a calorie sufficient diet? A diet is considered "unaffordable" when the diet cost plus expenditures for basic non-food needs are higher than incomes per person. In each country, food prices were measured at retail marketplaces specific to the local context. Non-food expenses

in each country are estimated by looking at how much low-income people typically spend on things like housing and transportation.

By comparing the cost of diets with income distributions across the world, researchers estimated that 1.1 billion people could not afford the most basic energy sufficient diet in 2021 (Map 1). That's 14% of the global population. These are the very worst-off in terms of nutrition.

An important question is how subsistence farmers fit in. They are included in these numbers: the income measure used to calculate the affordability of diets does take the value of subsistence farming (i.e. home production) into account. When the FAO report states that these smallholder farmers cannot afford a calorie-sufficient diet, it means they cannot produce one.

What people really need is a diverse and nutritious diet. Getting enough calories is important, but it is not sufficient to live a healthy and productive life. Eating only cereals and starchy foods will leave you deficient in protein, essential fats, and the wide range of micronutrients that our bodies need to function optimally.

Most countries develop 'food-based dietary guidelines' which provide recommendations on what a 'healthy diet' would look like. This includes guidelines on what balance of foods across the many groups – cereals, fruits, vegetables, legumes, meat and dairy – is considered best for long-term health.

The researchers also looked at the lowest-cost options to meet these national food-based dietary guidelines. Of course, there is no universal 'healthy diet', particularly when we consider the strong cultural differences in what people eat. So, the researchers selected dietary guidelines which were regionally representative: this means that we are not expecting

that people in India or Japan will adopt the national dietary guidelines of the U.S., or vice versa.

Unsurprisingly, a diverse, healthy diet is much more expensive than a calorie-sufficient one. The researchers found that the average cost across the world was \$3.67 per day.

When we put these prices in the context of affordability, we find that almost three billion people cannot afford a healthy diet. In many of the world's poorest countries – particularly across Sub-Saharan Africa – it's unaffordable (or not producible) for most of the population. This is shown in Map 2 which gives these figures as a percentage of the total population. In many countries, a healthy diet is out-of-reach for more than 80%.

A useful way to bring context to food prices is to compare the cost of a healthy diet with the median income of countries across the world. In the poorest countries, the cost of a healthy diet is higher than the median income. Even if the average person in these countries spent all of their money on food, a healthy diet would be unaffordable. In some countries – India is the largest among them – dietary costs would be roughly equal to the median income. There, people would need to spend all of their income on food to afford a healthy diet.

In rich countries, median incomes are much higher than dietary costs. In these countries the median income earner can afford a healthy diet with a relatively small fraction of their income. The average person in France could spend just 6% of their income on food and in Denmark, just 5%.

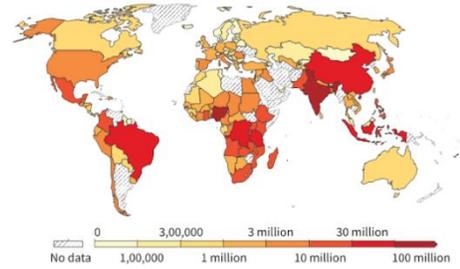
What this comparison shows is how far most of the world is from being able to afford a healthy diet. We cannot spend all, or even most, of our income on food. We would have very little to spend on other essentials.

### Two square meals

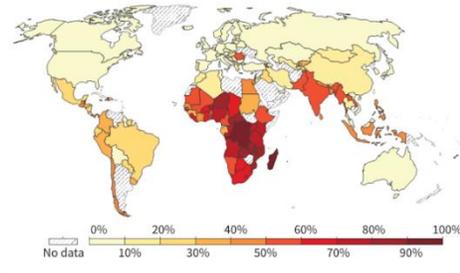
The maps were sourced from Our World in Data. Hannah Ritchie is the Deputy Editor and Pablo Rosado is the Principal Data Scientist at Our World in Data



Map 1: The map shows the number of people who cannot afford a calorie sufficient diet. Data for 2021



Map 2: The map shows the share of population that cannot afford a healthy diet. Data for 2022



## Three billion people cannot afford a healthy diet

तीन अरब लोग एक स्वस्थ आहार का खर्च वहन नहीं कर सकते

A healthy, nutritious diet is much more expensive than a **calorie-sufficient** one.

एक स्वस्थ, पोषक आहार कैलोरी-युक्त आहार की तुलना में कहीं अधिक महंगा होता है।



- As a result, **three billion people** cannot afford a healthy diet.  
परिणामस्वरूप, **तीन अरब लोग** एक स्वस्थ आहार वहन नहीं कर सकते।
- A healthy diet requires a wide range of **nutrient-dense foods** to get essential **vitamins and minerals**.  
एक स्वस्थ आहार के लिए आवश्यक **विटामिन और खनिजों** को प्राप्त करने हेतु **पोषक तत्वों से भरपूर खाद्य पदार्थों** की आवश्यकता होती है।
- **Healthy diets cost more than 4 times** a basic calorie-sufficient diet.  
स्वस्थ आहार की लागत एक साधारण कैलोरी-युक्त आहार से **4 गुना** अधिक होती है।
- Even if people spend most of their income on food, they still can't afford it.  
लोग अपनी अधिकांश आय भोजन पर खर्च करें, तब भी वे इसे वहन नहीं कर सकते।
- Many suffer from '**hidden hunger**' due to **micronutrient deficiencies** like **iron, calcium, vitamin A, iodine**.  
कई लोग **सूक्ष्म पोषक तत्वों की कमी** जैसे कि **लौह, कैल्शियम, विटामिन A, आयोडीन** के कारण '**छुपी हुई भूख**' से पीड़ित होते हैं।
- The cheapest calories often come from **starchy foods and cereals**.  
सबसे सस्ती कैलोरी अक्सर **मांडयुक्त खाद्य और अनाज** से मिलती है।
- Such a diet lacks **protein, essential fats**, and other nutrients.  
ऐसा आहार **प्रोटीन, आवश्यक वसा** और अन्य पोषक तत्वों की कमी रखता है।
- According to a study, an **energy-sufficient diet** can cost less than **\$1 per day**.  
एक अध्ययन के अनुसार, **ऊर्जा-युक्त आहार** की लागत **\$1 प्रतिदिन** से कम हो सकती है।
- A diet is called "**unaffordable**" when total food + basic non-food expenses **exceed income**.  
जब कुल आहार और आवश्यक गैर-खाद्य खर्च **आय से अधिक** हो जाएं, तो उसे "**अवहनीय**" कहा जाता है।
- In **2021, 1.1 billion people** could not afford even a **calorie-sufficient diet**.  
**2021** में, **1.1 अरब लोग** सबसे बुनियादी कैलोरी-युक्त आहार भी वहन नहीं कर सके।
- That's **14% of the global population** — the worst-off nutritionally.  
यह **विश्व जनसंख्या का 14%** है — जो पोषण की दृष्टि से **सबसे अधिक प्रभावित** हैं।
- Even **subsistence farmers** are included — meaning they **can't produce enough** to feed themselves.  
यहां तक कि **गुजारा किसान** भी शामिल हैं — यानी वे खुद के लिए **पर्याप्त उत्पादन** नहीं कर सकते।
- Eating only cereals leads to deficiencies in **protein, fats, micronutrients**.  
केवल अनाज खाने से **प्रोटीन, वसा, सूक्ष्म पोषक तत्वों** की कमी होती है।
- Countries issue **food-based dietary guidelines** recommending balanced intake of **cereals, vegetables, fruits, legumes, meat, dairy**.  
देश **खाद्य आधारित आहार दिशानिर्देश** जारी करते हैं जो **अनाज, सब्जियां, फल, दालें, मांस, डेयरी** के संतुलन का सुझाव देते हैं।



- There's no **universal healthy diet** — guidelines vary by region and culture.  
कोई सार्वभौमिक स्वस्थ आहार नहीं है — दिशानिर्देश क्षेत्र और संस्कृति पर निर्भर करते हैं।
- Globally, the average cost of a **healthy diet** is **\$3.67 per day**.  
वैश्विक स्तर पर एक स्वस्थ आहार की औसत लागत **\$3.67 प्रतिदिन** है।
- Nearly **three billion people** cannot afford a healthy diet at this price.  
लगभग **तीन अरब लोग** इस लागत पर स्वस्थ आहार नहीं ले सकते।
- In **Sub-Saharan Africa**, healthy diets are **unaffordable or unproducible** for most people.  
**सब-सहारा अफ्रीका** में अधिकांश लोग स्वस्थ आहार **वहन या उत्पादन नहीं कर सकते**।
- In many countries, more than **80% of people** can't afford a healthy diet.  
कई देशों में **80% से अधिक लोग** स्वस्थ आहार नहीं ले सकते।
- In **poorest nations**, healthy diet costs are **higher than the median income**.  
**सबसे गरीब देशों** में स्वस्थ आहार की लागत **माध्य आय से अधिक** होती है।
- In **India**, dietary costs are almost **equal to median income** — people would need to spend **all their money on food**.  
**भारत** में, आहार की लागत लगभग **औसत आय के बराबर** है — लोगों को **सारी आय भोजन पर खर्च** करनी पड़ेगी।
- In **rich countries** like **France (6%)** and **Denmark (5%)**, only a small portion of income is needed.  
**फ्रांस (6%)** और **डेनमार्क (5%)** जैसे **धनी देशों** में सिर्फ थोड़ी सी आय भोजन पर खर्च करनी पड़ती है।
- This comparison shows most of the world is **far from affording** a healthy diet.  
यह तुलना दर्शाती है कि दुनिया का अधिकांश हिस्सा **स्वस्थ आहार वहन करने से बहुत दूर** है।
- We can't spend **all or most income** on food — people need money for **other essentials** too.  
हम अपनी **पूरी या अधिकांश आय** भोजन पर खर्च नहीं कर सकते — लोगों को **अन्य आवश्यकताओं** के लिए भी धन चाहिए।



## Kaliyattam nights



GS Paper I: A&C

**Divine and the mortal:** The Kathiravan Veeran Theyyam performing at the Chulayadu Aduvapuram Vyail Kavu kaliyattam (festival) in Kannur on Sunday. In northern Kerala, the Theyyam season starts from October and ends by late May or June. S.K. MOHAN

### Theyyam

थेय्यम

- Theyyam is a traditional ritualistic performance art from the North Malabar region of Kerala, India, where performers embody deities through elaborate costumes, makeup, and dance.

थेय्यम भारत के केरल राज्य के उत्तर मलाबार क्षेत्र की एक पारंपरिक अनुष्ठानिक प्रदर्शन कला है, जिसमें कलाकार विभिन्न देवी-देवताओं का रूप धारण करते हैं, और विस्तृत वेशभूषा, श्रृंगार तथा नृत्य के माध्यम से उन्हें प्रस्तुत करते हैं।



## Historical Background

### ऐतिहासिक पृष्ठभूमि

- **Theyyam** has ancient roots, believed to have evolved from tribal worship practices and ancestor reverence. Historical texts like **Keralolpathi** mention its association with rituals such as **Kaliyattam**.

थेय्यम की उत्पत्ति प्राचीन जनजातीय पूजा पद्धतियों और पूर्वजों की श्रद्धा से हुई मानी जाती है। केरलोल्पति जैसे ऐतिहासिक ग्रंथों में इसे कलियाट्टम जैसे अनुष्ठानों से जोड़ा गया है।

- Initially performed by **indigenous communities** like **Malayar, Pana, Vannan, and Velan**, **Theyyam** has integrated various **cultural and religious elements** over centuries.

प्रारंभ में इसे मलयार, पाना, वन्नान और वेलन जैसी आदिवासी जातियों द्वारा प्रस्तुत किया जाता था, और बाद में इसने सांस्कृतिक एवं धार्मिक तत्वों को भी अपने में समाहित कर लिया।

## Geographical Significance

### भौगोलिक महत्व

- Predominantly performed in the **North Malabar** area, encompassing **Kasaragod, Kannur**, and parts of **Wayanad** and **Kozhikode** districts.

यह मुख्य रूप से उत्तर मलाबार क्षेत्र में किया जाता है, जिसमें कासरगोड, कन्नूर, तथा वायनाड और कोझिकोड के कुछ भाग शामिल हैं।

## Performance Details

### प्रदर्शन का विवरण

- The **Theyyam season** typically spans from **October to May**, aligning with the Malayalam calendar months of **Thulam to Edavam**.

थेय्यम का मौसम सामान्यतः अक्टूबर से मई तक होता है, जो मलयालम पंचांग के तुलाम से एडवम महीनों तक फैला होता है।

- Individual performances can last between **12 to 24 hours**, involving rituals like **Vellattam or Thottam** (preliminary rituals without full makeup) and the main performance with **elaborate costumes**.



एकल प्रदर्शन 12 से 24 घंटे तक चल सकते हैं, जिनमें वेल्लाट्टम या थोट्टम जैसे प्रारंभिक अनुष्ठान (बिना पूर्ण श्रृंगार के) और बाद में विस्तृत वेशभूषा के साथ मुख्य प्रदर्शन शामिल होता है।

- **Makeup and costumes** include distinctive **face painting** styles such as **Vairadelam** and **Prakkezhuthu**. Costumes consist of **large headgear, ornaments, and vibrant attire**, varying according to the **deity represented**.

श्रृंगार और पोशाक में विशेष प्रकार की चेहरे की चित्रकारी जैसे वैराडेलम और प्रक्केझुथु शामिल होती है। परिधान में विशाल मुकुट, आभूषण, और चमकीले वस्त्र होते हैं, जो अभिनीत देवता के अनुसार भिन्न-भिन्न होते हैं।

### Cultural Significance

#### सांस्कृतिक महत्व

- Performers are believed to **embody the deity** during the performance, acting as **mediums** through which **devotees seek blessings and guidance**.  
कलाकारों को प्रदर्शन के दौरान देवता का साक्षात् रूप माना जाता है, और वे माध्यम के रूप में कार्य करते हैं, जिनके द्वारा भक्त आशीर्वाद और मार्गदर्शन प्राप्त करते हैं।
- **Theyyam** acts as a **unifying force**, transcending **caste and community barriers**, and helps in **preserving local myths, legends, and traditions**.  
थेय्यम एक एकीकरण की शक्ति के रूप में कार्य करता है, जो जाति और समुदाय की बाधाओं से ऊपर उठकर स्थानीय मिथकों, लोककथाओं और परंपराओं को संरक्षित करता है।

### Notable Forms of Theyyam

#### थेय्यम के प्रमुख रूप

- There are over **400 distinct forms** of Theyyam, each representing **different deities or ancestral spirits**.  
थेय्यम के 400 से अधिक विशिष्ट रूप हैं, जो विभिन्न देवी-देवताओं या पूर्वज आत्माओं का प्रतिनिधित्व करते हैं।
- Some prominent forms include:  
कुछ प्रमुख रूप निम्नलिखित हैं:
  - **Muchilot Bhagavathi**  
मुचिलोट भगवती
  - **Pottan Theyyam**  
पोट्टन थेय्यम
  - **Kathivanoor Veeran**  
कथीवानूर वीरन



- Vishnumoorthy Theyyam  
विष्णुमूर्ति थेय्यम
- Vettakkorumakan  
वेट्टक्कोरुमाकन
- Sree Muthappan  
श्री मुथप्पन

## KINSHASA

### Torrential rain kills around 30 people in DR Congo's capital



#### GS Paper I: Mapping

AFP

Heavy downpours in the Democratic Republic of Congo's capital Kinshasa have killed around 30 people while wreaking havoc across the central African megacity. After the rain poured down overnight from Friday to Saturday, rising waters devastated impoverished suburbs of the metropolis of some 17 million people. AFP

### Torrential rain kills around 30 people in DR Congo's capital

डीआर कांगो की राजधानी में  
मूसलाधार बारिश से लगभग 30  
लोगों की मौत

Heavy downpours in the Democratic Republic of Congo's capital Kinshasa have killed around 30 people while wreaking havoc across the central African megacity.

डेमोक्रेटिक रिपब्लिक ऑफ कांगो की  
राजधानी किनशासा में हुई भारी  
बारिश से लगभग 30 लोगों की मौत  
हो गई और इस केंद्रीय अफ्रीकी  
महानगर में भारी तबाही मची।

• After the rain poured down overnight from Friday to Saturday, rising waters devastated impoverished suburbs of the metropolis of some 17 million people.

शुक्रवार से शनिवार की रात तक हुई बारिश के बाद, बढ़ते पानी ने करीब 1.7 करोड़ आबादी वाले इस महानगर के गरीब उपनगरों को तबाह कर दिया।



## TEHRAN

### Iran top diplomat rejects Trump's demand for direct nuclear talks



GS Paper I: Mapping

AFP

Iran's Foreign Minister Abbas Araghchi dismissed direct talks with the U.S. as pointless, after U.S. President Donald Trump said he preferred face-to-face talks over its nuclear programme. He said direct talks made no sense with a country "that constantly threatens to resort to force in violation of the UN Charter". AFP

### Iran top diplomat rejects Trump's demand for direct nuclear talks

ईरान के शीर्ष राजनयिक ने ट्रंप की प्रत्यक्ष परमाणु वार्ता की मांग को खारिज किया

• Iran's Foreign Minister Abbas Araghchi dismissed direct talks with the U.S. as pointless, after U.S. President Donald Trump said he preferred face-to-face talks over its nuclear programme.

ईरान के विदेश मंत्री अब्बास अराघची ने संयुक्त राज्य अमेरिका के साथ प्रत्यक्ष वार्ता को निरर्थक बताया, जब अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप ने

परमाणु कार्यक्रम पर सीधी बातचीत को प्राथमिकता देने की बात कही।

• He said **direct talks** made no sense with a country "that constantly threatens to resort to force in violation of the **UN Charter**".

उन्होंने कहा कि प्रत्यक्ष वार्ता उस देश से कोई मतलब नहीं रखती "जो लगातार संयुक्त राष्ट्र चार्टर का उल्लंघन करते हुए बल प्रयोग की धमकी देता है।"

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

### 1. Only 12% of HC judges disclosed assets, data show

आंकड़े दिखाते हैं कि केवल 12% उच्च न्यायालय के न्यायाधीशों ने संपत्ति का खुलासा किया है

### 2. Telangana will strive to get Krishna water share, says Minister

तेलंगाना कृष्णा जल हिस्से को पाने के लिए प्रयास करेगा, मंत्री ने कहा



**3. AAI team to visit sites identified for second airport in Bengaluru**

बंगलुरु में दूसरे हवाईअड्डे के लिए चयनित स्थलों का निरीक्षण करेगी एएआई टीम

**4. In the past, SC has ruled that 'once a waqf, always a waqf' भूतकाल में, सुप्रीम कोर्ट ने निर्णय दिया था कि 'एक बार वक्फ़, हमेशा वक्फ़'**

**5. Parliament passed many laws for social justice, says Om Birla**

ओम बिड़ला ने कहा कि संसद ने सामाजिक न्याय के लिए कई कानून पारित किए

**6. Modi launches Indian-aided railway projects on last day of Sri Lanka trip**

मोदी ने श्रीलंका दौरे के अंतिम दिन भारत-प्रायोजित रेलवे परियोजनाओं की शुरुआत की

**7. The missing middle**

गायब होता मध्य मार्ग

**8. Health and sanitation as the pillars of a healthy India**

एक स्वस्थ भारत की नींव: स्वास्थ्य और स्वच्छता

**9. Can the U.S. President serve a third term?**

क्या अमेरिका का राष्ट्रपति तीसरा कार्यकाल ले सकता है?

**10. A rite of passage or a lifetime of scars?**

रैगिंग: एक परंपरा या ज़िंदगी भर के ज़ख्म?



## Only 12% of HC judges disclosed assets, data show

**GS Paper II:  
Judiciary**

NEW DELHI

Among the 769 judges currently serving in the 25 High Courts of India, only 95 – or a mere 12.35% – have chosen to disclose their assets and liabilities on their official websites.

The alleged discovery of partially burnt currency notes at the residence of the High Court judge Justice Yashwant Varma has intensified discussions about transparency within the judiciary, including the broader issue of asset disclosure among judges.

In response to the issue, all 33 serving Supreme Court judges had agreed to make their asset declarations public on the official top court website.

Currently, among the six High Courts where

### Public disclosure

Judges of only six High Courts have declared their assets on the court websites



High Court	Number of judges who declared their assets as on April 5	Current strength of judges
Chhattisgarh	1	16
Himachal Pradesh	11	12
Madras	5	65
Punjab and Haryana	30	53
Delhi	7	38
Kerala	41	44

Source: Websites of respective High Courts

judges have declared their assets, the Kerala High Court leads with 41 of its 44 judges having completed the disclosure, accounting for 93.18%. The Himachal Pradesh High Court follows closely, with 11 out of 12 judges (91.66%) having done the same. In contrast, some courts report signifi-

cantly lower disclosure rates. In the Chhattisgarh High Court, only one out of 16 judges has declared assets and the Madras High Court lags with just five out of 65. The Delhi High Court has seven of its 38 judges declaring their assets – a sharp fall from 2018, when 29 of 35 judges had made

public their assets. Interestingly, Delhi's High Court archives list disclosures from 64 former judges—many of whom have either retired, been transferred, or elevated to the Supreme Court—some dating as far back as February 2010. But the current numbers paint a different picture.

#### Call for reform

Currently, out of 33 serving judges, 30 – including the Chief Justice of India, Sanjiv Khanna—have submitted their asset declarations, as displayed on the official website. A recent Full Court meeting on April 1 marked a significant shift – all 33 Supreme Court judges agreed to make their assets public. Their declarations will be made visible once the technical modalities are sorted

out. Back in August 2023, a Parliamentary Standing Committee submitted a report titled 'Judicial Processes and their Reform', pushing for legislative changes. It called upon the government to mandate annual property declarations for all judges of the High Courts and the Supreme Court.

"The Supreme Court has gone to the extent of holding that the public has a right to know the assets of those standing for elections as MPs or MLAs. When so, it belies logic that judges don't need to disclose their assets and liabilities. Anybody holding public office and drawing a salary from the exchequer should mandatorily furnish annual returns of their property," the committee had said.

## Only 12% of HC judges disclosed assets, data show

आंकड़े दिखाते हैं कि केवल 12% उच्च न्यायालय के न्यायाधीशों ने संपत्ति का खुलासा किया है

Among the **769 judges currently serving in the 25 High Courts of India**, **only 95 — or a mere 12.35%** — have disclosed their assets and liabilities on official websites.

भारत के 25 उच्च न्यायालयों में कार्यरत 769 न्यायाधीशों में से केवल 95 — यानी मात्र 12.35% — ने अपनी संपत्ति और देनदारियों का आधिकारिक वेबसाइटों पर खुलासा किया है।

- The alleged discovery of **partially burnt currency notes** at the residence of **Justice Yashwant Varma** has intensified discussions about **judicial transparency**.



न्यायमूर्ति यशवंत वर्मा के आवास पर आंशिक रूप से जले हुए नोटों की कथित बरामदगी ने न्यायपालिका में पारदर्शिता को लेकर बहस तेज कर दी है।

- This includes the broader issue of **asset disclosure among judges**. इसमें न्यायाधीशों द्वारा संपत्ति के खुलासे का व्यापक मुद्दा भी शामिल है।
- In response, all **33 serving Supreme Court judges** agreed to make their **asset declarations public** on the top court website. प्रतिक्रिया स्वरूप, सभी **33 वर्तमान सुप्रीम कोर्ट के न्यायाधीशों** ने अपनी संपत्ति की घोषणा सार्वजनिक करने पर सहमति जताई।
- Among the **six High Courts** where judges have disclosed assets, **Kerala High Court** leads with **41 of its 44 judges** (i.e., **93.18%**). जिन **6 उच्च न्यायालयों** में न्यायाधीशों ने संपत्ति का खुलासा किया है, उनमें **केरल हाई कोर्ट** सबसे आगे है, जहां **44 में से 41 न्यायाधीशों** ने (अर्थात **93.18%**) घोषणा की है।
- **Himachal Pradesh High Court** follows with **11 out of 12 judges** (i.e., **91.66%**) having disclosed their assets. हिमाचल प्रदेश हाई कोर्ट में **12 में से 11 न्यायाधीशों** (यानी **91.66%**) ने अपनी संपत्ति का खुलासा किया है।
- In contrast, **Chhattisgarh High Court** has only **1 out of 16 judges** declaring assets. इसके विपरीत, **छत्तीसगढ़ हाई कोर्ट** में केवल **16 में से 1 न्यायाधीश** ने ही संपत्ति घोषित की है।
- The **Madras High Court** lags with just **5 out of 65 judges** disclosing their assets. **मद्रास हाई कोर्ट** पीछे है, जहां केवल **65 में से 5 न्यायाधीशों** ने संपत्ति का खुलासा किया है।
- In the **Delhi High Court**, only **7 out of 38 judges** have declared assets — a sharp fall from **2018**, when **29 of 35 judges** had disclosed. **दिल्ली हाई कोर्ट** में केवल **38 में से 7 न्यायाधीशों** ने संपत्ति घोषित की है — जबकि **2018** में **35 में से 29 न्यायाधीशों** ने ऐसा किया था।
- Interestingly, Delhi's archives list disclosures from **64 former judges**, some dating back to **February 2010**. दिलचस्प बात यह है कि दिल्ली की पुरानी फाइलों में **64 पूर्व न्यायाधीशों** की घोषणाएं दर्ज हैं, जिनमें से कुछ **फरवरी 2010** तक की हैं।
- Many of them have since **retired, been transferred, or elevated to the Supreme Court**. इनमें से कई **सेवानिवृत्त, स्थानांतरित या सुप्रीम कोर्ट में पदोन्नत** हो चुके हैं।
- But the **current numbers** show a **very different picture**. लेकिन **वर्तमान आंकड़े** एक **बिल्कुल अलग स्थिति** दर्शाते हैं।

## Call for reform

### सुधार की मांग

- Out of **33 serving judges** of the Supreme Court, **30** — including **CJI Sanjiv Khanna** — have submitted their **asset declarations** on the official website.



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

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

**CONTACT: 9971932488**



सुप्रीम कोर्ट के 33 कार्यरत न्यायाधीशों में से 30 — जिनमें मुख्य न्यायाधीश संजीव खन्ना भी शामिल हैं — ने अपनी संपत्ति घोषणाएं आधिकारिक वेबसाइट पर दी हैं।

- A Full Court meeting on April 1 led to all 33 SC judges agreeing to make their assets public.

1 अप्रैल को हुई पूर्ण अदालत बैठक में सभी 33 सुप्रीम कोर्ट के न्यायाधीशों ने अपनी संपत्तियां सार्वजनिक करने पर सहमति जताई।

- The declarations will be made visible once technical modalities are sorted.  
घोषणाएं सार्वजनिक की जाएंगी जब तकनीकी प्रक्रियाएं पूरी हो जाएंगी।
- In August 2023, a Parliamentary Standing Committee submitted a report titled 'Judicial Processes and their Reform'.

अगस्त 2023 में, संसदीय स्थायी समिति ने 'न्यायिक प्रक्रियाएं और उनका सुधार' नामक रिपोर्ट सौंपी थी।

- The report recommended legislative changes mandating annual property declarations by all High Court and Supreme Court judges.

रिपोर्ट में सुझाव दिया गया कि सभी उच्च न्यायालय और सुप्रीम कोर्ट के न्यायाधीशों के लिए वार्षिक संपत्ति घोषणाएं अनिवार्य की जाएं।

- It stated that since the public has a right to know MPs' and MLAs' assets, the same logic should apply to judges.

रिपोर्ट में कहा गया कि चूंकि जनता को सांसदों और विधायकों की संपत्ति जानने का अधिकार है, इसलिए यह न्यायाधीशों पर भी लागू होना चाहिए।

- "Anyone holding public office and drawing a salary from the exchequer must mandatorily file annual property returns," the committee said.

समिति ने कहा, "जो भी व्यक्ति सार्वजनिक पद पर है और राजकोष से वेतन प्राप्त करता है, उसे वार्षिक संपत्ति विवरण अनिवार्य रूप से जमा करना चाहिए।



## Telangana will strive to get Krishna water share, says Minister

GS Paper II:  
Geography

HYDERABAD

Telangana Irrigation Minister N. Uttam Kumar Reddy on Sunday said the State government would provide all support to its legal team in presenting its case for an equitable share of waters before the Krishna Water Dispute Tribunal and other forums.

Mr. Reddy held an extensive meeting with the legal team representing the State before the tribunal and the Supreme Court to press for an equitable share and present a strong case in the dispute over water sharing. He said he would personally attend the tribunal proceedings whenever required or when the matters related to the Krishna and Godavari rivers came up for hearing.

The meeting was attended by senior lawyers, irrigation officials and legal consultants, including the Advisor to the Telangana government on Irrigation, Aditya Nath Das, and senior counsel C.S. Vaidyanathan, who is leading Telangana's legal team, and other lawyers.

They briefed the Minister on the arguments to be presented before the tribunal during the hearing



N. Uttam Kumar Reddy

from April 15 to 17. The discussions covered Telangana's core claims, current legal status and preparations for the next hearing. He was apprised of Telangana's stance on Krishna water allocation and the data being used to substantiate its claim.

The legal team outlined how Telangana had historically been deprived of its fair share and how the bifurcation of Andhra Pradesh in 2014 further complicated the matter of water distribution.

The State's arguments would emphasise the need for an equitable and just allocation, considering the basin area, population, and irrigation potential.

The Minister said Telangana's case was not just about statistics but also about justice and the right to develop irrigation infrastructure without facing arbitrary constraints.

**Telangana will strive to get Krishna water share, says Minister**

तेलंगाना कृष्णा जल हिस्से को पाने के लिए प्रयास करेगा, मंत्री ने कहा

Telangana Irrigation Minister N. Uttam Kumar Reddy on Sunday said the State government would provide all support to its legal team in presenting its case for an equitable share of waters before the Krishna Water Dispute Tribunal and other forums.

तेलंगाना के सिंचाई मंत्री एन. उत्तम कुमार रेड्डी ने रविवार को कहा कि राज्य सरकार कृष्णा जल विवाद ट्रिब्यूनल और अन्य मंचों के समक्ष जल के न्यायसंगत हिस्से के लिए अपने कानूनी दल को पूरा समर्थन देगी।

- Mr. Reddy held an **extensive meeting** with the legal team representing the State before the **tribunal and the Supreme Court** to press for an equitable share and present a strong case in the water sharing dispute.

श्री रेड्डी ने **ट्रिब्यूनल और सुप्रीम कोर्ट** में राज्य का प्रतिनिधित्व करने वाली कानूनी टीम के साथ **विस्तृत बैठक** की, ताकि न्यायसंगत हिस्से के लिए दबाव डाला जा सके और जल बंटवारे के विवाद में मजबूत मामला पेश किया जा सके।

- He said he would **personally attend** the tribunal proceedings whenever required or when matters related to the **Krishna and Godavari rivers** came up for hearing.

उन्होंने कहा कि जब भी आवश्यक होगा या जब **कृष्णा और**

गोदावरी नदियों से संबंधित मामलों की सुनवाई होगी, वह स्वयं **ट्रिब्यूनल की कार्यवाही** में भाग लेंगे।

- The meeting was attended by **senior lawyers, irrigation officials, and legal consultants**, including the Advisor to the Telangana government on Irrigation, **Aditya Nath Das**, and **senior counsel C.S. Vaidyanathan**, who is leading Telangana's legal team.



बैठक में वरिष्ठ वकीलों, सिंचाई अधिकारियों और कानूनी सलाहकारों ने भाग लिया, जिनमें तेलंगाना सरकार के सिंचाई सलाहकार आदित्य नाथ दास, और तेलंगाना की कानूनी टीम का नेतृत्व कर रहे वरिष्ठ अधिवक्ता सी. एस. वैद्यनाथन शामिल थे।

- They briefed the Minister on the arguments to be presented before the tribunal during the hearing from **April 15 to 17**.  
उन्होंने मंत्री को **15 से 17 अप्रैल** तक होने वाली सुनवाई के दौरान ट्रिब्यूनल के समक्ष प्रस्तुत किए जाने वाले तर्कों के बारे में जानकारी दी।
- The discussions covered Telangana's **core claims, current legal status, and preparations for the next hearing**.  
चर्चा में तेलंगाना के **मुख्य दावे, वर्तमान कानूनी स्थिति, और अगली सुनवाई की तैयारी** शामिल थी।
- He was apprised of Telangana's stance on **Krishna water allocation** and the **data** being used to substantiate its claim.  
उन्हें **कृष्णा जल आवंटन** पर तेलंगाना की स्थिति और अपने दावे को समर्थन देने के लिए उपयोग किए जा रहे **आंकड़ों** से अवगत कराया गया।
- The legal team outlined how Telangana had **historically been deprived** of its fair share and how the **bifurcation of Andhra Pradesh in 2014** further complicated the matter.  
कानूनी टीम ने बताया कि कैसे तेलंगाना को **ऐतिहासिक रूप से उसके न्यायसंगत हिस्से से वंचित किया गया** और कैसे **2014 में आंध्र प्रदेश के विभाजन** ने इस मुद्दे को और जटिल बना दिया।
- The State's arguments would emphasise the need for an **equitable and just allocation**, considering the **basin area, population, and irrigation potential**.  
राज्य के तर्कों में **बेसिन क्षेत्र, जनसंख्या, और सिंचाई की क्षमता** को ध्यान में रखते हुए **न्यायसंगत और उचित आवंटन** की आवश्यकता पर जोर दिया जाएगा।
- The Minister said Telangana's case was not just about **statistics**, but also about **justice** and the **right to develop irrigation infrastructure** without facing **arbitrary constraints**.  
मंत्री ने कहा कि तेलंगाना का मामला केवल **आंकड़ों** का नहीं बल्कि **न्याय और सिंचाई ढांचे के विकास के अधिकार** का है, जिसे **मनमाने प्रतिबंधों** के बिना प्राप्त किया जाना चाहिए।



# AAI team to visit sites identified for second airport in Bengaluru

GS Paper II:  
Governance  
BENGALURU

A multi-disciplinary team from the Airports Authority of India (AAI) will be visiting Karnataka on Monday to hold discussions with State government officials and also inspect the three locations which have been identified for Bengaluru's second international greenfield airport.

The government has already identified three locations for the proposed airport, of which two are on Kanakapura Road and one on the Nelamangala-Kunigal Road. Sources said that the AAI would hold discussions with State government officials, and the Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC) would be making a presentation on technical details of the proposed airport before the delegation.

Documents such as revenue map of these sites, weather reports of the last 10 years, detailed images of the sites' geographic features, maps from the Survey of India, and other operational details would be presented before the AAI officials.

This will be followed by a visit to the three shortlisted locations during which the AAI team is expected to inspect the sites and decide whether they are suitable for the development of a greenfield airport. "The team's visit is scheduled between April 7 and 9. During the visit to the sites, they would be looking into various technical

**Documents such as revenue maps and weather reports of the sites will be presented to officials.**

aspects like weather, terrain, connectivity etc.," the sources said.

They added that after the AAI team submitted its report on the three sites, the State government would conduct a feasibility report and finalise the location. The KSIIDC had already paid a fee of ₹.21 crore to the AAI for this purpose.

"The proposed airport has to have flat land which is the foremost requirement and there should be no mountains in the approach area. Another aspect is weather as there cannot an airport with consistently bad weather. There should not be too many waterbodies around the airport. There should be good surface connectivity, not just roads but also rail," said an aviation expert on the key requirements.

The second airport for Bengaluru can only become operational after May 2033, due to an agreement between Bangalore International Airport Ltd., which is the operator of the Kempegowda International Airport (KIA), and the Ministry of Civil Aviation. As per the agreement, no airport can operate within an aerial distance of 150 km of KIA before its 25th anniversary which falls in May 2033.

## AAI team to visit sites identified for second airport in Bengaluru

बंगलुरु में दूसरे हवाईअड्डे के लिए चयनित स्थलों का निरीक्षण करेगी एएआई टीम

A multi-disciplinary team from the Airports Authority of India (AAI) will be visiting Karnataka on Monday to hold discussions with State government officials and inspect the three locations identified for Bengaluru's second international greenfield airport.

भारतीय विमानपत्तन प्राधिकरण (AAI) की एक बहु-अनुशासनात्मक टीम सोमवार को कर्नाटक का दौरा करेगी, जहां वह राज्य सरकार के अधिकारियों से चर्चा करेगी और बंगलुरु के दूसरे अंतरराष्ट्रीय ग्रीनफील्ड हवाईअड्डे के लिए चयनित तीन स्थलों का निरीक्षण करेगी।

• The government has already identified three locations for the proposed airport, two on Kanakapura Road and one on the Nelamangala-Kunigal Road.

सरकार ने प्रस्तावित हवाईअड्डे के लिए पहले ही तीन स्थानों की पहचान कर ली है, जिनमें से दो कनकपुरा रोड पर और एक नेलमंगला-कुनिगल रोड पर है।

• The Karnataka State Industrial and Infrastructure Development Corporation (KSIIDC) would present technical details of the proposed airport before the AAI delegation.

कर्नाटक राज्य औद्योगिक और अवसंरचना विकास निगम (KSIIDC) एएआई प्रतिनिधिमंडल के समक्ष प्रस्तावित हवाईअड्डे के तकनीकी विवरण प्रस्तुत करेगा।

• Documents such as revenue map, 10 years of weather reports, geographic images, Survey of India maps, and operational details will be presented before the AAI officials. राजस्व मानचित्र, पिछले 10 वर्षों की मौसम रिपोर्ट, भौगोलिक चित्र, सर्वे



ऑफ इंडिया के नक्शे, और संचालन संबंधी विवरण जैसे दस्तावेज एएआई अधिकारियों को प्रस्तुत किए जाएंगे।

- The AAI team will then **visit the three shortlisted locations** to inspect and decide their **suitability** for developing a greenfield airport.

इसके बाद एएआई टीम **तीन चयनित स्थानों का दौरा** करेगी और यह तय करेगी कि वे **ग्रीनफील्ड हवाईअड्डे के विकास** के लिए उपयुक्त हैं या नहीं।

- The team's **visit is scheduled between April 7 and 9**, during which **weather, terrain, connectivity**, and other **technical aspects** will be assessed.

टीम का दौरा **7 से 9 अप्रैल** के बीच निर्धारित है, इस दौरान **मौसम, भू-आकृति, कनेक्टिविटी**, और अन्य तकनीकी पहलुओं का मूल्यांकन किया जाएगा।

- After the AAI team submits its **report**, the **State government** will conduct a **feasibility study** and **finalise** the location.

एएआई टीम द्वारा **रिपोर्ट** जमा करने के बाद **राज्य सरकार** एक **संभाव्यता अध्ययन** करेगी और स्थान को **अंतिम रूप** देगी।

- The **KSIIIDC** has already paid a **fee of ₹1.21 crore** to the AAI for this purpose.

इस उद्देश्य के लिए **KSIIIDC** ने पहले ही एएआई को **₹1.21 करोड़** का **शुल्क** चुका दिया है।

- According to an **aviation expert**, the proposed airport should be on **flat land** with **no mountains** in the approach area, **no bad weather**, **fewer waterbodies**, and **good connectivity** including **road and rail**.

एक **हवाई यात्रा विशेषज्ञ** के अनुसार, प्रस्तावित हवाईअड्डा **समतल भूमि** पर होना चाहिए, **आसपास पहाड़ नहीं** होने चाहिए, **लगातार खराब मौसम नहीं** होना चाहिए, **कम जल निकाय** होने चाहिए और **सड़क व रेल सहित अच्छी कनेक्टिविटी** होनी चाहिए।

- The second airport for Bengaluru can become operational **only after May 2033**, due to an agreement between **Bangalore International Airport Ltd.** and the **Ministry of Civil Aviation**.

**बेंगलूर इंटरनेशनल एयरपोर्ट लिमिटेड** और **नागरिक उड्डयन मंत्रालय** के बीच हुए समझौते के कारण, **बेंगलूरु का दूसरा हवाईअड्डा केवल मई 2033 के बाद** चालू हो सकता है।

- As per the agreement, **no airport can operate within 150 km of Kempegowda International Airport (KIA)** before its **25th anniversary**, which falls in **May 2033**.

समझौते के अनुसार, **मई 2033 में केम्पेगौड़ा अंतरराष्ट्रीय हवाईअड्डे (KIA) की 25वीं वर्षगांठ से पहले 150 किमी के दायरे में कोई अन्य हवाईअड्डा संचालित नहीं हो सकता।**



## In the past, SC has ruled that ‘once a waqf, always a waqf’

**GS Paper II: Waqf**

**Krishnadas Rajagopal**  
NEW DELHI

Petitions in the Supreme Court primarily argue that the Waqf (Amendment) Act, 2025, violates the court's own pronouncement of “once a Waqf, always a Waqf” to deprive the Muslim community of age-old tracts of Waqf lands and facilitate their conversion to private or government property.

Pleas by organisations such as the Samastha Kerala Jamaithul Ulema, represented by advocate Zulfikar Ali, point out that at the heart of the controversial law is an attempt to stamp control over huge tracts of Waqf property, spread across the country, which have belonged to the minority community for centuries.

The law, by expanding



People protesting against the Waqf (Amendment) Bill at Jantar Mantar in New Delhi. FILE PHOTO

state control over Waqf assets and limiting the ability of individuals and subjecting Waqf properties to heightened scrutiny, was breaching the court's 1954 judgment in *Ratilal Panachand Gandhi versus The State of Bombay* which held that “transferring control of religious property to secular authorities is an infringement of religious and property rights”.

In *Sayed Ali versus Andhra Pradesh Waqf Board, Hyderabad* in 1998, the Supreme Court had declared “Waqf” as a form of charity under Islam that has Koranic roots. Petitioner Anjum Kadari submitted “a Waqf is a property transferred to Allah”. The court had pronounced that the nature of dedication of movable or immovable property, that is Waqf, for

a purpose recognised by the Muslim law as pious, religious or charitable was “permanent”. Hence, the court had coined the phrase “once a Waqf, always a Waqf”.

“To infringe upon this sacred principle by attempting to alter the nature of Waqf properties is essentially an infringement and violation of the very essence of Waqf,” the Ulema argued in its petition.

The petitioners, including Congress MP Mohammed Jawed and AIMIM chief Asaduddin Owaisi, have argued that about 35 amendments introduced by the new law defeat the very objective of the original Waqf Act of 1995 to “better administer” Waqf properties.

In *K. Nagaraj versus Andhra Pradesh* in 1985, the Supreme Court had

held that amendments which nullified the objectives of the original Act or statute could be struck down as “ultra vires or unconstitutional”.

The petitioners point out that the amendments in the 2025 Waqf law get rid of concepts recognised by the top court, including that of “Waqf by user”. As per Muslim jurisprudence, a Waqf could be created either verbally or under a deed, or by long use. When a land or property has been used for public religious or pious purposes for a long period by people belonging to the Muslim community, the land becomes “Waqf by User”. The Constitution Bench in the *Ramjanmabhoomi* case judgment of 2019 had recognised “Waqf by User”. However, the 2025 law has “eliminated” this concept

and made deeds of dedication mandatory.

“A major percentage of existing Waqfs in India do not have a Waqf deed. These Waqfs came into existence centuries ago. They became Waqfs through Waqf by User,” the Ulema submitted.

The new amendments have limited the ability of the Waqf Tribunal to recognise properties as Waqf based on historical usage, thereby violating Article 26, which guarantees religious denominations the right to manage their own affairs, Mr. Jawed argued.

The deletion of “Waqf by User” from the statute has now given a free pass to anyone to challenge the characteristics of centuries-old Waqfs and claim these properties to be private property or government property.

## In the past, SC has ruled that ‘once a waqf, always a waqf’

**भूतकाल में, सुप्रीम कोर्ट ने निर्णय दिया था कि 'एक बार वक़फ़, हमेशा वक़फ़'**

Petitions in the Supreme Court primarily argue that the Waqf (Amendment) Act, 2025, violates the court's own pronouncement of “once a Waqf, always a Waqf” to deprive the Muslim community of age-old tracts of Waqf lands. • सुप्रीम कोर्ट में याचिकाएं मुख्य रूप से तर्क देती हैं कि वक़फ़ (संशोधन) अधिनियम, 2025, कोर्ट के “एक बार वक़फ़, हमेशा वक़फ़” के निर्णय का उल्लंघन करता है और मुस्लिम समुदाय से पुरानी वक़फ़ ज़मीनें छीनता है।

• Pleas by organisations such as the **Samastha Kerala Jamaithul Ulema**, point out that the law attempts to stamp control over huge tracts of Waqf property. • **समस्त केरल जमीयतुल उलेमा** जैसी संस्थाओं की याचिकाएं बताती हैं कि यह कानून वक़फ़ संपत्तियों पर नियंत्रण स्थापित करने का प्रयास है।

• The law expands **state control** over Waqf assets and limits the ability of individuals, breaching the court's 1954 judgment in *Ratilal Panachand Gandhi vs State of Bombay*. • यह कानून वक़फ़ संपत्तियों पर **राज्य का नियंत्रण** बढ़ाता है और व्यक्तियों की क्षमता सीमित करता है, जिससे 1954 के **रतिलाल पणाचंद गांधी बनाम बॉम्बे राज्य** के निर्णय का उल्लंघन होता है।



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- In **Sayyed Ali vs Andhra Pradesh Waqf Board (1998)**, the court declared Waqf as a form of charity under Islam with Koranic roots. • **सैयद अली बनाम आंध्र प्रदेश वक्फ बोर्ड (1998)** में, कोर्ट ने वक्फ को **इस्लाम में दान** का रूप माना जो कुरान से जुड़ा हुआ है।
- The court said that dedication of property as Waqf is **permanent**, coining the phrase “**once a Waqf, always a Waqf**”. • कोर्ट ने कहा कि वक्फ के रूप में संपत्ति की समर्पण प्रक्रिया **स्थायी** होती है, और इसे “**एक बार वक्फ, हमेशा वक्फ**” कहा गया।
- The Ulema argued that altering Waqf properties is a **violation of the essence of Waqf**. • उलेमा ने तर्क दिया कि वक्फ संपत्तियों में परिवर्तन **वक्फ की भावना का उल्लंघन** है।
- Petitioners including **Congress MP Mohammed Jawed** and **AIMIM chief Asaduddin Owaisi** argue that **35 amendments** defeat the objective of the **Waqf Act, 1995**. • याचिकाकर्ताओं में कांग्रेस सांसद **मोहम्मद जावेद** और **AIMIM प्रमुख असदुद्दीन ओवैसी** शामिल हैं, जो कहते हैं कि **35 संशोधन, 1995 के वक्फ अधिनियम** के उद्देश्य को नष्ट करते हैं।
- In **K. Nagaraj vs Andhra Pradesh (1985)**, SC held that amendments nullifying objectives of the original Act can be struck down as “**ultra vires or unconstitutional**”. • **के. नागराज बनाम आंध्र प्रदेश (1985)** में सुप्रीम कोर्ट ने कहा था कि जो संशोधन मूल अधिनियम के उद्देश्यों को समाप्त करते हैं, वे “**असंवैधानिक**” घोषित किए जा सकते हैं।
- The 2025 law removes the concept of “**Waqf by user**”, previously recognized by the court. • **2025 का कानून**, कोर्ट द्वारा पहले मान्यता प्राप्त “**उपयोग द्वारा वक्फ**” की अवधारणा को हटा देता है।
- The **2019 Ramjanmabhoomi case** had recognised “Waqf by user”, but the 2025 law makes **deeds of dedication mandatory**. • **2019 के रामजन्मभूमि मामले** में “उपयोग द्वारा वक्फ” को मान्यता दी गई थी, लेकिन 2025 का कानून **समर्पण दस्तावेज़ अनिवार्य** करता है।
- Ulema stated most existing Waqfs in India do not have deeds and were created through **Waqf by User** centuries ago. • उलेमा ने बताया कि भारत में अधिकांश वक्फों के पास दस्तावेज़ नहीं हैं और वे **सदियों पहले उपयोग द्वारा वक्फ** बने थे।
- The new law restricts **Waqf Tribunal** from recognising Waqf properties based on historical use, violating **Article 26**. • नया कानून **वक्फ ट्रिब्यूनल** को ऐतिहासिक उपयोग के आधार पर वक्फ संपत्तियों को मान्यता देने से रोकता है, जिससे **अनुच्छेद 26** का उल्लंघन होता है।
- The removal of “Waqf by User” now allows challenges to centuries-old Waqfs as **private or government property**. • “उपयोग द्वारा वक्फ” को हटाने से अब सदियों पुराने वक्फों को **निजी या सरकारी संपत्ति** के रूप में चुनौती दी जा सकती है।



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## Parliament passed many laws for social justice, says Om Birla

GS Paper II: Government Scheme

NEW DELHI

The inclusive and welfarist nature of the Constitution of India integrates marginalised and backward sections of society into the mainstream of progress, Lok Sabha Speaker Om Birla said on Sunday.

He was delivering the keynote address at the 150th Assembly of the Inter-Parliamentary Union in Tashkent, Uzbekistan.

Speaking on "Parliamentary action for social development and justice", Mr. Birla said that in recent years, the Indian Parliament had passed several laws that promoted social justice and security.

He said Bills, including the Rights of Persons with Disabilities Act, 2016; Transgender Persons (Protection of Rights) Act, 2019; and Nari Shakti Vandan Adhinyam, 2023 safeguard the interests of all sections. He referred to the new labour laws and codes passed by Parliament for the "welfare and social security of workers in the unorganised sector".

Mr. Birla said India was on its way to becoming the third largest economy, and playing a leading role in the world in innovation, AI, start-ups, space and defence technology, IT, fin-tech, and pharmaceuticals.

## Parliament passed many laws for social justice, says Om Birla

### ओम बिड़ला ने कहा कि संसद ने सामाजिक न्याय के लिए कई कानून पारित किए

The inclusive and welfarist nature of the Constitution of India integrates marginalised and backward sections of society into the mainstream of progress, Lok Sabha Speaker Om Birla said on Sunday.

लोकसभा अध्यक्ष ओम बिड़ला ने रविवार को कहा कि भारत के संविधान की समावेशी और कल्याणकारी प्रकृति समाज के वंचित और पिछड़े वर्गों को प्रगति की मुख्यधारा में शामिल करती है।

• He was delivering the keynote address at the 150th Assembly of the Inter-Parliamentary Union in Tashkent, Uzbekistan.

वह ताशकंद, उज़्बेकिस्तान में आयोजित अंतर-संसदीय संघ की 150वीं महासभा में मुख्य भाषण दे रहे थे।

• Speaking on "Parliamentary action for social development and justice", Mr. Birla said that in recent years, the Indian Parliament had passed several laws that promoted social justice and security.

"सामाजिक विकास और न्याय के लिए संसदीय कार्रवाई" विषय पर बोलते हुए, श्री बिड़ला ने कहा कि हाल के वर्षों में भारतीय संसद ने सामाजिक न्याय और सुरक्षा को बढ़ावा देने वाले कई कानून पारित किए हैं।

• He said Bills, including the Rights of Persons with Disabilities Act, 2016; Transgender Persons (Protection of Rights) Act, 2019; and Nari Shakti Vandan Adhinyam, 2023 safeguard the interests of all sections.

उन्होंने कहा कि दिव्यांग व्यक्तियों के अधिकार अधिनियम, 2016; ट्रांसजेंडर व्यक्तियों (अधिकारों का संरक्षण) अधिनियम, 2019; और नारी शक्ति वंदन अधिनियम, 2023 जैसे बिल सभी वर्गों के हितों की रक्षा करते हैं।

• He referred to the new labour laws and codes passed by Parliament for the "welfare and social security of workers in the unorganised sector".

उन्होंने संसद द्वारा पारित नए श्रम कानूनों और कोड्स का उल्लेख किया जो असंगठित क्षेत्र के श्रमिकों के "कल्याण और सामाजिक सुरक्षा" के लिए हैं।

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- Mr. Birla said India was on its way to becoming the **third largest economy**, and playing a **leading role** in the world in **innovation, AI, start-ups, space and defence technology, IT, fintech, and pharmaceuticals.**

श्री बिड़ला ने कहा कि भारत तीसरी सबसे बड़ी अर्थव्यवस्था बनने की दिशा में आगे बढ़ रहा है, और नवाचार, एआई, स्टार्टअप्स, अंतरिक्ष और रक्षा तकनीक, आईटी, फिनटेक और फार्मास्यूटिकल्स के क्षेत्र में दुनिया में नेतृत्वकारी भूमिका निभा रहा है

## Modi launches Indian-aided railway projects on last day of Sri Lanka trip

Landmark railway modernisation projects implemented under the India-Sri Lanka development partnership represent a significant milestone in strengthening north-south rail connectivity in island nation, says PM; visit has reaffirmed deep cultural, spiritual ties between countries, he adds

Press Trust of India  
COLOMBO

**P**resident Anura Kumara Dissanayake, visited the Jaya Sri Maha Bodhi temple and launched two Indian-aided railway projects before wrapping up his three-day trip to the island nation.

Mr. Modi, accompanied by Sri Lankan President Anura Kumara Dissanayake, visited the Jaya Sri Maha Bodhi temple and paid respects at the revered Buddhist shrine in Anuradhapura, a spiritual city around 200 km from Colombo.

Following the visit to the shrine, the two leaders inaugurated the 128-km Maho-Omanthai railway line refurbished with Indian assistance of \$91.27 million.

This was followed by the launch of the construction of an advanced signalling system from Maho to Anuradhapura, built with Indian grant assistance of \$14.89 million.

"These landmark railway modernisation projects implemented under the India-Sri Lanka development partnership represent a significant milestone in strengthening north-south rail connectiv-



**Cultural connect:** Prime Minister Narendra Modi with Sri Lankan President Anura Kumara Dissanayake at the Jaya Sri Maha Bodhi temple in Anuradhapura, Sri Lanka on Sunday. PTI

ity in Sri Lanka," the Ministry of External Affairs said. "They would facilitate fast and efficient movement of both passenger and freight traffic across the country," it said.

Before leaving for India, Mr. Modi said his visit to Sri Lanka had reaffirmed the deep cultural, spiritual and civilisational ties between the two nations. "Deeply grateful to President Dissanayake, the people and the Government of Sri Lanka for the warmth extended during my visit," he said in a social media post.

"It will surely add momentum to our bilateral relations," he said.

### 'Strong links'

At the Jaya Sri Maha Bodhi temple, the Prime Minister sought blessings from the head monk at the shrine.

"Offered prayers at the sacred Jaya Sri Maha Bodhi in Anuradhapura with President Dissanayake. It's a deeply humbling moment to be at one of the most revered sites in Buddhism," Mr. Modi said in a social media post.

"It is a living symbol of

peace, enlightenment and spiritual continuity. May the teachings of Lord Buddha always guide us," he said.

The Ministry said Mr. Modi offered prayers at the revered Mahabodhi tree at the temple. It is believed that the sacred Bodhi tree at the temple has its origin in India's Bodhgaya. The sapling from the Bodhi tree was brought by Theri Sanghamitta, the daughter of Emperor Ashoka from India, and planted there in the precincts of the temple.

## Dissanayake says visit further solidifies bond

Press Trust of India  
COLOMBO

Prime Minister Narendra Modi's visit to Sri Lanka reinforces the island nation's important role in India's 'Neighbourhood First Policy' and 'MAHASAGAR' vision, President Anura Kumara Dissanayake's office here said on Sunday.

Mr. Modi's "visit underscores the enduring relationship encapsulated by the theme "Friendship

of centuries, commitment to a prosperous future", further solidifying the bonds between India and Sri Lanka," President Dissanayake's office said in a statement. This visit has enhanced the economic, cultural, and historical relations between the two nations, it added.

His visit is expected to yield significant results through collaborative initiatives "fostering a path towards mutual growth and development," it said.

defence, energy and digitalisation.

The agreement on defence is considered significant as it signalled an upswing in the India-Sri Lanka strategic ties nearly four decades after the IPKF episode.

The two sides also firm up a total of seven pacts, including one on developing Trincomalee as an energy hub under a tri-lateral framework also involving the United Arab Emirates and another agreement on power grid connectivity.

## Modi launches Indian-aided railway projects on last day of Sri Lanka trip



## मोदी ने श्रीलंका दौरे के अंतिम दिन भारत-प्रायोजित रेलवे परियोजनाओं की शुरुआत की

Prime Minister Narendra Modi on Sunday travelled to the historic city of Anuradhapura in north-central Sri Lanka and launched two Indian-assisted railway projects before wrapping up his three-day trip to the island nation.

प्रधानमंत्री नरेंद्र मोदी ने रविवार को उत्तर-मध्य श्रीलंका के ऐतिहासिक शहर अनुराधापुर का दौरा किया और अपने तीन दिवसीय दौरे के समापन से पहले भारत-सहायता प्राप्त दो रेलवे परियोजनाओं का शुभारंभ किया।

- Mr. Modi, accompanied by Sri Lankan President Anura Kumara Dissanayake, visited the **Jaya Sri Maha Bodhi temple** and paid respects at the revered **Buddhist shrine** in Anuradhapura, a **spiritual city** around **200 km from Colombo**.  
श्री मोदी श्रीलंका के राष्ट्रपति अनुर कुमार डिसानायके के साथ जया श्री महा बोधी मंदिर पहुंचे और कोलंबो से लगभग 200 किमी दूर स्थित इस आध्यात्मिक नगर अनुराधापुर में पवित्र बौद्ध तीर्थस्थल पर श्रद्धांजलि अर्पित की।
- Following the visit to the shrine, the two leaders inaugurated the **128-km Maho-Omanthai railway line** refurbished with **Indian assistance of \$91.27 million**.  
तीर्थ स्थल पर दर्शन के बाद, दोनों नेताओं ने **\$91.27 मिलियन की भारतीय सहायता से पुनर्निर्मित 128 किलोमीटर लंबे माहो-ओमानथाई रेलमार्ग** का उद्घाटन किया।
- This was followed by the launch of the construction of an **advanced signalling system** from **Maho to Anuradhapura**, built with **Indian grant assistance of \$14.89 million**.  
इसके बाद **माहो से अनुराधापुर तक के लिए \$14.89 मिलियन की भारतीय अनुदान सहायता से बनाए जा रहे एक उन्नत सिग्नलिंग सिस्टम** के निर्माण का शुभारंभ किया गया।
- “These **landmark railway modernisation projects** implemented under the **India-Sri Lanka development partnership** represent a **significant milestone** in strengthening **north-south rail connectivity** in Sri Lanka,” the **Ministry of External Affairs** said.  
विदेश मंत्रालय ने कहा कि भारत-श्रीलंका विकास साझेदारी के तहत लागू ये ऐतिहासिक रेलवे आधुनिकीकरण परियोजनाएं, श्रीलंका में उत्तर-दक्षिण रेलवे संपर्क को मजबूत करने में एक महत्वपूर्ण उपलब्धि का प्रतिनिधित्व करती हैं।
- “They would facilitate fast and efficient movement of both **passenger and freight traffic** across the country,” it said.  
मंत्रालय ने कहा कि ये परियोजनाएं देश भर में यात्री और माल परिवहन की तेज़ और कुशल आवाजाही को सक्षम बनाएंगी।



- Before leaving for India, Mr. Modi said his visit to Sri Lanka had **reaffirmed the deep cultural, spiritual and civilisational ties** between the two nations.  
भारत लौटने से पहले श्री मोदी ने कहा कि उनका श्रीलंका दौरा दोनों देशों के बीच गहरी सांस्कृतिक, आध्यात्मिक और सभ्यतागत संबंधों को फिर से पुष्ट करता है।
- “**Deeply grateful** to President Dissanayake, the people and the Government of Sri Lanka for the **warmth** extended during my visit,” he said in a **social media post**.  
उन्होंने सोशल मीडिया पोस्ट में कहा, “मेरे दौरे के दौरान मिली गरमजोशी के लिए मैं राष्ट्रपति डिसानायके, श्रीलंकाई जनता और सरकार का अत्यंत आभारी हूँ।”
- “It will surely add momentum to our **bilateral relations**,” he said.  
उन्होंने कहा कि यह हमारे द्विपक्षीय संबंधों को निश्चित ही नई गति देगा।

## Strong links

### मजबूत संबंध

- At the **Jaya Sri Maha Bodhi temple**, the Prime Minister sought blessings from the **head monk** at the shrine.  
जया श्री महा बोधी मंदिर में प्रधानमंत्री ने वहां के मुख्य भिक्षु से आशीर्वाद प्राप्त किया।
- “Offered prayers at the **sacred Jaya Sri Maha Bodhi** in Anuradhapura with President Dissanayake. It’s a deeply humbling moment to be at one of the **most revered sites in Buddhism**,” Mr. Modi said in a social media post.  
श्री मोदी ने सोशल मीडिया पोस्ट में कहा, “राष्ट्रपति डिसानायके के साथ अनुराधापुर में पवित्र जया श्री महा बोधी में प्रार्थना की। बौद्ध धर्म के सबसे पूजनीय स्थलों में से एक में होना अत्यंत विनम्रता का क्षण है।”
- “It is a **living symbol** of peace, enlightenment and spiritual continuity. May the **teachings of Lord Buddha** always guide us,” he said.  
उन्होंने कहा, “यह शांति, ज्ञान और आध्यात्मिक निरंतरता का जीवंत प्रतीक है। भगवान बुद्ध के उपदेश हमेशा हमें मार्ग दिखाएं।”
- The Ministry said Mr. Modi offered prayers at the revered **Mahabodhi tree** at the temple.  
मंत्रालय ने बताया कि श्री मोदी ने मंदिर परिसर में स्थित पवित्र महाबोधि वृक्ष की पूजा की।
- It is believed that the sacred **Bodhi tree** at the temple has its origin in **India’s Bodhgaya**.  
ऐसा माना जाता है कि इस मंदिर में स्थित पवित्र बोधि वृक्ष की उत्पत्ति भारत के बोधगया से हुई है।
- The **sapling** from the Bodhi tree was brought by **Theri Sanghamitta**, the **daughter of Emperor Ashoka** from India, and planted there in the precincts of the temple.  
सम्राट अशोक की पुत्री थेरि संघमित्रा द्वारा भारत से बोधि वृक्ष की एक शाखा लाकर मंदिर परिसर में रोपी गई थी।
- “The temple stands as a **testament to the strong civilisational linkages** that form the foundation of the close **India-Sri Lanka partnership**,” the Ministry said.



मंत्रालय ने कहा, “यह मंदिर मजबूत सभ्यतागत संबंधों का प्रमाण है जो भारत-श्रीलंका की घनिष्ठ साझेदारी की नींव रखते हैं।”

## Significant agreements

### महत्वपूर्ण समझौते

- The Prime Minister arrived in **Colombo on Friday evening** after concluding his trip to **Thailand**.  
प्रधानमंत्री ने थाईलैंड दौरे के बाद **शुक्रवार शाम को कोलंबो** में प्रवेश किया।
- On **Saturday**, Mr. Modi and Mr. Dissanayake held **extensive talks**, following which they unveiled over **10 specific outcomes**, including **seven agreements** to expand ties in several sectors such as **defence, energy and digitalisation**.  
शनिवार को श्री मोदी और श्री डिसानायके ने **विस्तृत वार्ताएं** कीं, जिसके बाद उन्होंने **10 से अधिक प्रमुख परिणामों** की घोषणा की, जिनमें **रक्षा, ऊर्जा और डिजिटलाइजेशन** जैसे क्षेत्रों में संबंध बढ़ाने के लिए **सात समझौते** शामिल हैं।
- The agreement on **defence** is considered **significant** as it signalled an **upswing in India-Sri Lanka strategic ties** nearly **four decades** after the **IPKF episode**.  
रक्षा समझौता महत्वपूर्ण माना जा रहा है क्योंकि यह **आईपीकेएफ प्रकरण** के लगभग **चार दशक** बाद **भारत-श्रीलंका रणनीतिक संबंधों में सुधार** का संकेत देता है।
- The two sides also firmed up a total of **seven pacts**, including one on developing **Trincomalee as an energy hub** under a **trilateral framework** also involving the **United Arab Emirates**, and another agreement on **power grid connectivity**.  
दोनों पक्षों ने कुल **सात समझौतों** को अंतिम रूप दिया, जिनमें एक **त्रिपक्षीय ढांचे** के तहत **त्रिनकोमाली को ऊर्जा हब** के रूप में विकसित करने का समझौता शामिल है, जिसमें **संयुक्त अरब अमीरात** भी भागीदार है, और एक अन्य समझौता **पावर ग्रिड कनेक्टिविटी** पर है।



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GS Paper II:  
Parliament

HINDU

## The missing middle

No legislation finds bipartisan support in Parliament

The Budget session of Parliament was notable for reasons both good and bad. The sittings of the two Houses stretched beyond midnight to clear the Waqf (Amendment) Bill 2025. The debates reflected the significant divergence of opinion on the management of Waqf properties, but were held in a convivial atmosphere. The Chairs of both Houses were elated to preside over a productive session and the ruling BJP was content to find allies strongly on its side, particularly on the Waqf law amendment. Parliament also approved President's Rule in Manipur, following debates held past midnight. The Opposition was buoyant that it got to have its say. It had its constituents holding together, and it even attracted some fence-sitters on select issues during the session. The BJP not only managed to steer the legislative agenda but also played to the gallery to please its political constituency. It was, however, not all good news. Off the floor of Parliament, business advisory committee meetings of the two Houses saw sharp exchanges, in one instance prompting Rajya Sabha Chairman Jagdeep Dhankhar to walk out. The stand-off between the Congress and Lok Sabha Speaker Om Birla, on the Lok Sabha Leader of the Opposition, Rahul Gandhi, not being given adequate opportunities to speak, remained unresolved.

The vote on the Waqf Bill exposed the differences within the Biju Janata Dal (BJD) as well as the divergence between prospective allies, the BJP and the AIADMK. The BJD's decision not to issue a whip riled many within the party, more so considering BJD patriarch Naveen Patnaik's clear stance against the Waqf Bill. One of the reasons for the AIADMK-BJP split in 2023, was the regional party's fear of losing its minority voter base. The AIADMK voted against the Waqf Bill, underscoring its reservations about the BJP's agenda. While the YSRCP, the AIADMK and the BJD showed an eagerness to keep a distance from the BJP, the JD(U) and the TDP ended up in an embrace of their dominant ally. The merits of the Waqf amendments may be debatable but the government's refusal to take the Muslim community into confidence on an important piece of legislation is a classic sign of majoritarianism. Barring a nominated member in the upper House, no Muslim MP supported the amendments. The Waqf debate also highlighted the fact that the ruling alliance does not have a single elected member from the community in Parliament. Beyond the veneer of efficient outcomes, the session sharpened political and communal polarisation. Discussions should ideally expand the common ground, but this session failed on that count.

## The missing middle गायब होता मध्य मार्ग

No legislation finds bipartisan support in Parliament

संसद में कोई भी कानून सर्वदलीय समर्थन नहीं पा सका

• The Budget session of Parliament was notable for reasons both good and bad.

संसद का बजट सत्र कई अच्छे और बुरे कारणों से उल्लेखनीय रहा।

• The sittings of the two Houses stretched beyond midnight to clear the Waqf (Amendment) Bill 2025.

वक्फ (संशोधन) विधेयक 2025 को पारित करने के लिए दोनों सदनों की बैठकें आधी रात के बाद तक चलीं।

• The debates reflected the significant divergence of opinion on the management of Waqf properties, but were held in a convivial atmosphere.

वक्फ संपत्तियों के प्रबंधन पर गंभीर मतभेद सामने आए, लेकिन बहस सौहार्दपूर्ण माहौल में हुई।

• The Chairs of both Houses were elated to preside over a productive session and the ruling BJP was content to find allies strongly on its side, particularly on the Waqf law amendment.

दोनों सदनों के सभापति उत्साहित थे कि उन्होंने उत्पादक सत्र की अध्यक्षता की, और सत्तारूढ़ बीजेपी को विशेष रूप से वक्फ कानून संशोधन पर मजबूत सहयोगी समर्थन मिला।

• Parliament also approved President's Rule in Manipur, following debates held past midnight.

संसद ने आधी रात बाद हुई बहसों के बाद मणिपुर में राष्ट्रपति शासन को भी मंजूरी दी।

• The Opposition was buoyant that it got to have its say.

विपक्ष इस बात से उत्साहित था कि उसे अपनी बात कहने का मौका मिला।

• It had its constituents holding together, and it even attracted some fence-sitters on select issues during the session.

उसके घटक दल एकजुट रहे और कुछ दुविधा में रहने वाले सांसदों का भी कुछ मुद्दों पर समर्थन मिला।

• The BJP not only managed to steer the legislative agenda but also played to the gallery to please its political constituency.

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बीजेपी ने न सिर्फ विधायी एजेंडा संभाला बल्कि अपने राजनीतिक जनाधार को रिझाने के लिए भी काम किया।

- It was, however, **not all good news**.  
हालांकि, सब कुछ सकारात्मक नहीं रहा।
- Off the floor of Parliament, **business advisory committee meetings** of the two Houses saw **sharp exchanges**, in one instance prompting **Rajya Sabha Chairman Jagdeep Dhankhar** to walk out.  
संसद से बाहर, दोनों सदनों की व्यवसाय सलाहकार समिति की बैठकों में तेज़ बहस हुई, और एक मौके पर राज्यसभा के सभापति जगदीप धनखड़ को बैठक से बाहर निकलना पड़ा।
- The **stand-off** between the **Congress** and **Lok Sabha Speaker Om Birla**, on **Rahul Gandhi** not being given **adequate opportunities to speak**, remained **unresolved**.  
कांग्रेस और लोकसभा अध्यक्ष ओम बिड़ला के बीच राहुल गांधी को बोलने का पर्याप्त मौका न मिलने को लेकर जो टकराव हुआ, वह सुलझ नहीं पाया।
- The vote on the **Waqf Bill** exposed the **differences within the Biju Janata Dal (BJD)** as well as the **divergence between prospective allies, the BJP and the AIADMK**.  
वक्फ विधेयक पर मतदान ने बीजू जनता दल (बीजेडी) के अंदरूनी मतभेदों के साथ-साथ भाजपा और एआईएडीएमके के संभावित गठबंधन में अंतर को भी उजागर किया।
- The **BJD's decision** not to issue a **whip** riled many within the party, more so considering **BJD patriarch Naveen Patnaik's** clear stance **against the Waqf Bill**.  
बीजेडी का व्हिप न जारी करने का निर्णय पार्टी के अंदर कई लोगों को नाराज़ कर गया, खासकर जब बीजेडी प्रमुख नवीन पटनायक ने वक्फ विधेयक के खिलाफ स्पष्ट रुख अपनाया था।
- One of the reasons for the **AIADMK-BJP split in 2023** was the regional party's fear of **losing its minority voter base**.  
2023 में एआईएडीएमके-बीजेपी अलगाव का एक कारण था क्षेत्रीय दल की यह आशंका कि वह अल्पसंख्यक मतदाता आधार खो सकती है।
- The **AIADMK** voted **against the Waqf Bill**, underscoring its **reservations about the BJP's agenda**.  
एआईएडीएमके ने वक्फ विधेयक के खिलाफ मतदान किया, जिससे उसके बीजेपी के एजेंडे पर संदेह स्पष्ट हुए।
- While the **YSRCP, AIADMK and BJD** showed an eagerness to **keep a distance from the BJP**, the **JD(U)** and the **TDP** ended up in an **embrace of their dominant ally**.  
जहां वाईएसआरसीपी, एआईएडीएमके और बीजेडी ने बीजेपी से दूरी बनाए रखने की कोशिश की, वहीं जेडीयू और टीडीपी ने अपने प्रमुख सहयोगी से नज़दीकियां बढ़ाईं।
- The **merits** of the **Waqf amendments** may be **debatable** but the **government's refusal** to take the **Muslim community into confidence** on an important piece of legislation is a classic sign of **majoritarianism**.  
वक्फ संशोधनों की योग्यता विवादास्पद हो सकती है, लेकिन सरकार द्वारा मुस्लिम समुदाय को विश्वास में न लेना बहुसंख्यकवाद का एक क्लासिक उदाहरण है।



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- Barring a **nominated member** in the **Upper House**, no **Muslim MP** supported the amendments.  
उच्च सदन के एक नामित सदस्य को छोड़कर, किसी भी मुस्लिम सांसद ने संशोधनों का समर्थन नहीं किया।
- The **Waqf debate** also highlighted the fact that the **ruling alliance** does not have a **single elected member** from the community in Parliament.  
वक्फ बहस ने यह भी उजागर किया कि सत्तारूढ़ गठबंधन के पास संसद में मुस्लिम समुदाय का कोई भी निर्वाचित सदस्य नहीं है।
- Beyond the veneer of **efficient outcomes**, the session **sharpened political and communal polarisation**.  
प्रभावी नतीजों की सतह के नीचे, इस सत्र ने राजनीतिक और सांप्रदायिक धुवीकरण को और बढ़ा दिया।
- Discussions should ideally **expand the common ground**, but this session **failed on that count**.  
चर्चाओं को आदर्श रूप से साझा आधार को विस्तारित करना चाहिए, लेकिन यह सत्र उसमें विफल रहा।

PATRIOTIC IAS



# Health and sanitation as the pillars of a healthy India

## GS Paper II: Government Scheme

On World Health Day (April 7), as nations reflect on the foundations of human well-being, India stands tall with a transformative lesson: health and sanitation are not separate pursuits, but are two sides of a coin. Under the leadership of Prime Minister Narendra Modi, India has undertaken a sanitation and water revolution that has not only changed the way we live but also how we thrive.

### Rural missions that made a difference

The story of modern India cannot be told without acknowledging the contribution of the Swachh Bharat Mission (SBM) Grameen and the Jal Jeevan Mission (JJM). These programmes are not just about toilets and tap water alone. They represent a shift in the soul of the nation. These rural missions symbolise dignity, equity, and, above all, health.

When the Prime Minister launched the SBM from the ramparts of the Red Fort in 2014, he ignited a movement that has touched every Indian household, making it a people's movement – a Jan Andolan that was anchored in behavioural change and inter-generational equity. By 2019, India had declared itself Open Defecation Free (ODF) and taken significant steps towards achieving SDG 6.2 (it focuses on achieving access to adequate and equitable sanitation and hygiene for all by 2030) and also ending open defecation, 11 years ahead of time.

The SBM has been a powerful public health intervention. A World Health Organization (WHO) report estimated from 2014 to 2019, through the sanitation mission, over three lakh diarrhoeal deaths were averted. The Gates Foundation reported in 2017 that there were 58% higher cases of wasting among children in non ODF areas. A UNICEF study (2017) found that 93% of women felt safer after getting a toilet at home and ODF families saved ₹50,000 annually in health-care costs, ensuring higher savings. The SBM has improved environmental outcomes. Groundwater contamination in ODF villages is 12.7 times less likely, ensuring long-term health resilience in rural communities. A (2024) Nature study estimated that 60,000 to 70,000 child deaths are prevented every year due to improved sanitation access. These outcomes are not incidental, they



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The story of modern India is connected to every link in the sanitation chain that results in a healthier and safer society

are the result of sustained political commitment, inter-ministerial coordination, and community ownership.

In 2019, the Jal Jeevan Mission was launched to ensure every rural household receives clean drinking water through a tap connection. This is more than infrastructure. It is an investment in human potential with far-reaching socio-economic impact. Research by Nobel Laureate Dr. Michael Kremer has shown that nearly 30% infant deaths can be reduced if safe water is made available to families for drinking and 1.36 lakh child deaths (under five years) can be prevented with universal tap coverage. WHO estimates suggest that the JJM could avert four lakh diarrhoeal deaths with safe drinking water supply at home. And, 5.5 crore hours are saved every day, mostly by women, who had earlier spent time fetching water. State Bank of India research finds that the availability of water within premises led to increased participation by women in agriculture and allied activities.

The Sujal and Swachh Gaon campaign, launched to integrate water, sanitation, and hygiene at the village level, has further galvanised communities. Thousands of villages have already been declared Swachh Sujal, which is an important marker of holistic public health transformation. Improved water and sanitation systems are also leading to reduced out-of-pocket expenditure for rural households, reinforcing the preventive health-care model.

### On the ground

Sanitation and water are the first line of defence in public health. They are the invisible shield that protects communities from disease, women from indignity, and children from lost opportunity. A healthy nation is a productive nation. A clean nation is a resilient one.

Today, more than 80% of India's rural households have tap water connections. Over 96% villages have been declared as ODF Plus, more than 5.07 lakh villages have solid waste management systems, and 5.23 lakh villages have liquid waste management systems in place.

Women are not just beneficiaries, they are also water testers, sanitation entrepreneurs, and local leaders. Over 2.48 million women have been trained to test water quality, and women-led

Self-Help Groups are managing sanitation assets, recycling centres, and even sanitary napkin production. This is the vision of a Viksit Bharat where no child misses school because of a lack of water, no woman walks miles with a pot on her head, and no family loses a loved one to preventable illness.

The journey to health is the journey to dignity. A toilet brings privacy. Clean water brings opportunity. Waste management protects the environment.

Each link in the sanitation chain connects directly to a healthier, safer society. The lessons we have learnt highlight the importance of inter-ministerial collaboration which is non-negotiable.

### It is about convergence

Since, health is not the concern of one Ministry alone, it is the outcome of converged action across water, sanitation, nutrition, education, and rural development. We must recognise that India's model is not insular, it is global. Our innovations, community-led models, and use of technology whether through real-time dashboards, Galvanizing Organic Bio-Agro Resources Dhan (or GOBARdhan) biogas plants, or plastic waste management units are blueprints for the world, especially the Global South. Lastly, we must continue to work through a mutual understanding that every rupee invested in Water, Sanitation and Hygiene (WASH) yields manifold returns in health, productivity, gender equity, and environmental sustainability.

India is committed towards progressing forward on the United Nations Sustainable Development Goals and this World Health Day, we need to acknowledge and remember that good health begins not in hospitals, but in homes with access to clean water, safe sanitation, and a shared resolve. As we move forward, India remains committed to sharing its journey, collaborating globally, and co-creating a cleaner, healthier, and more resilient world.



## Health and sanitation as the pillars of a healthy India

### एक स्वस्थ भारत की नींव: स्वास्थ्य और स्वच्छता

On this World Health Day (April 7), as nations reflect on the foundations of human well-being, India stands tall with a transformative lesson: health and sanitation are not separate pursuits, but are two sides of a coin.

इस विश्व स्वास्थ्य दिवस (7 अप्रैल) को जब देश मानव कल्याण की नींव पर विचार कर रहे हैं, भारत एक महत्वपूर्ण संदेश के साथ खड़ा है: स्वास्थ्य और स्वच्छता अलग नहीं, बल्कि एक ही सिक्के के दो पहलू हैं।



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- Under the leadership of **Prime Minister Narendra Modi**, India has undertaken a **sanitation and water revolution** that has not only changed the way we live but also how we thrive.

प्रधानमंत्री नरेंद्र मोदी के नेतृत्व में भारत ने स्वच्छता और जल क्रांति की है, जिसने न केवल हमारे जीने के तरीके को बदला है, बल्कि हमारे समृद्ध होने के तरीके को भी।

## Rural missions that made a difference

### ग्रामीण मिशन जिन्होंने बदलाव लाया

- The story of modern India cannot be told without acknowledging the contribution of the **Swachh Bharat Mission (SBM) Grameen** and the **Jal Jeevan Mission (JJM)**.  
आधुनिक भारत की कहानी **स्वच्छ भारत मिशन (एसबीएम)** ग्रामीण और **जल जीवन मिशन (जेजेएम)** के योगदान को स्वीकार किए बिना अधूरी है।
- These programmes are not just about **toilets and tap water** alone. They represent a shift in the **soul of the nation**.  
ये कार्यक्रम केवल **शौचालय और नल के पानी** तक सीमित नहीं हैं। ये देश की **आत्मा में बदलाव** का प्रतीक हैं।
- These rural missions symbolise **dignity, equity**, and, above all, **health**.  
ये ग्रामीण मिशन **गरिमा, समानता** और सबसे महत्वपूर्ण **स्वास्थ्य** का प्रतीक हैं।
- When the **Prime Minister launched the SBM** from the **ramparts of the Red Fort in 2014**, he ignited a movement that has touched every Indian household.  
जब **प्रधानमंत्री ने 2014 में लाल किले से स्वच्छ भारत मिशन** की शुरुआत की, तब उन्होंने एक ऐसा आंदोलन शुरू किया जिसने हर भारतीय घर को छू लिया।
- It became a people's movement — a **Jan Andolan** that was anchored in **behavioural change** and **inter-generational equity**.  
यह एक **जन आंदोलन** बन गया जो **व्यवहारिक बदलाव** और **पीढ़ीगत समानता** पर आधारित था।
- By **2019**, India had declared itself **Open Defecation Free (ODF)** and taken significant steps towards achieving **SDG 6.2**.  
**2019** तक भारत ने खुद को **खुले में शौच से मुक्त (ओडीएफ)** घोषित कर दिया और **एसडीजी 6.2** की प्राप्ति की दिशा में महत्वपूर्ण कदम उठाए।
- **SDG 6.2** focuses on achieving **access to adequate and equitable sanitation and hygiene for all by 2030**.  
**एसडीजी 6.2** का उद्देश्य **2030 तक सभी के लिए पर्याप्त और समान स्वच्छता और सफाई की पहुंच सुनिश्चित करना** है।
- The SBM has been a **powerful public health intervention**.  
स्वच्छ भारत मिशन एक **सशक्त सार्वजनिक स्वास्थ्य हस्तक्षेप** रहा है।
- A **WHO report** estimated that from **2014 to 2019**, over **three lakh diarrhoeal deaths** were averted through the sanitation mission.



विश्व स्वास्थ्य संगठन (WHO) की रिपोर्ट के अनुसार 2014 से 2019 के बीच तीन लाख से अधिक दस्त से होने वाली मौतों को रोका गया।

- The **Gates Foundation** reported in **2017** that there were **58% higher cases of wasting** among children in **non-ODF areas**.

गेट्स फाउंडेशन ने 2017 में बताया कि गैर-ओडीएफ क्षेत्रों में बच्चों में 58% अधिक कुपोषण के मामले थे।

- A **UNICEF study (2017)** found that **93% of women felt safer** after getting a **toilet at home**, and **ODF families saved ₹50,000 annually** in health-care costs.

यूनिसेफ के 2017 के अध्ययन में पाया गया कि 93% महिलाएं घर में शौचालय मिलने के बाद खुद को सुरक्षित महसूस करती थीं और ओडीएफ परिवार सालाना ₹50,000 तक स्वास्थ्य खर्च में बचत करते थे।

- The SBM has improved **environmental outcomes**.

स्वच्छ भारत मिशन ने पर्यावरणीय परिणामों को बेहतर किया है।

- **Groundwater contamination** in ODF villages is **12.7 times less likely**, ensuring **long-term health resilience** in rural communities.

ओडीएफ गांवों में भूजल प्रदूषण की संभावना 12.7 गुना कम होती है, जिससे ग्रामीण समुदायों में दीर्घकालिक स्वास्थ्य सुरक्षा सुनिश्चित होती है।

- A **2024 Nature study** estimated that **60,000 to 70,000 child deaths** are prevented every year due to **improved sanitation access**.

2024 की नेचर स्टडी के अनुसार बेहतर स्वच्छता पहुंच के कारण हर साल 60,000 से 70,000 बच्चों की मौतें रोकी जाती हैं।

- These outcomes are not incidental, they are the result of **sustained political commitment, inter-ministerial coordination, and community ownership**.

ये परिणाम संयोग नहीं हैं, बल्कि लगातार राजनीतिक प्रतिबद्धता, अंतर-मंत्रालयीय समन्वय और सामुदायिक भागीदारी का नतीजा हैं।

- In **2019**, the **Jal Jeevan Mission** was launched to ensure every rural household receives **clean drinking water through a tap connection**.

2019 में जल जीवन मिशन की शुरुआत की गई ताकि हर ग्रामीण घर को नल से स्वच्छ पेयजल मिल सके।

- This is more than infrastructure. It is an **investment in human potential** with far-reaching **socio-economic impact**.

यह केवल बुनियादी ढांचा नहीं, बल्कि मानव क्षमताओं में निवेश है जिसका सामाजिक-आर्थिक प्रभाव दूरगामी है।

- Research by **Nobel Laureate Dr. Michael Kremer** has shown that nearly **30% infant deaths** can be reduced if **safe water** is made available.

नोबेल विजेता डॉ. माइकल क्रेमर के शोध में पाया गया कि यदि सुरक्षित पानी उपलब्ध कराया जाए तो 30% नवजात मौतों को रोका जा सकता है।

- **1.36 lakh child deaths (under five years)** can be prevented with **universal tap coverage**.

1.36 लाख बच्चों (पाँच साल से कम उम्र) की मौतें सार्वभौमिक नल कनेक्शन से रोकी जा सकती हैं।



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- **WHO estimates** suggest that the **JJM** could avert **four lakh diarrhoeal deaths** with **safe drinking water supply at home**.  
WHO के अनुमान के अनुसार जल जीवन मिशन (JJM) से घर में सुरक्षित पेयजल आपूर्ति के माध्यम से चार लाख दस्त से होने वाली मौतें रोकी जा सकती हैं।
- **5.5 crore hours** are saved every day, mostly by women, who had earlier spent time **fetching water**.  
प्रतिदिन 5.5 करोड़ घंटे बचते हैं, जो पहले पानी भरने में खर्च होते थे, और इनमें अधिकतर महिलाएं शामिल हैं।
- **SBI research** finds that **availability of water within premises** led to increased **participation by women in agriculture and allied activities**.  
एसबीआई के शोध के अनुसार, परिसर में जल की उपलब्धता से महिलाओं की कृषि और सहायक गतिविधियों में भागीदारी बढ़ी है।
- The **Sujal and Swachh Gaon campaign**, launched to integrate **water, sanitation, and hygiene** at the **village level**, has further **galvanised communities**.  
गांव स्तर पर जल, स्वच्छता और सफाई को एकीकृत करने के लिए शुरू किया गया **सुजल और स्वच्छ गांव अभियान** ने समुदायों को और अधिक सक्रिय किया है।
- Thousands of villages have already been declared **Swachh Sujal**, an important marker of **holistic public health transformation**.  
हजारों गांव पहले ही **स्वच्छ सुजल** घोषित किए जा चुके हैं, जो **समग्र सार्वजनिक स्वास्थ्य परिवर्तन** का एक महत्वपूर्ण संकेतक है।
- Improved **water and sanitation systems** are also leading to **reduced out-of-pocket expenditure** for rural households, reinforcing the **preventive health-care model**.  
बेहतर जल और स्वच्छता व्यवस्था से ग्रामीण परिवारों के **स्वास्थ्य पर निजी खर्च में कमी** आई है, जिससे **रोकथाम आधारित स्वास्थ्य मॉडल** को मजबूती मिली है।

## On the ground

### ज़मीन पर

- Sanitation and water are the **first line of defence** in public health.  
स्वच्छता और पानी **सार्वजनिक स्वास्थ्य की पहली रक्षा पंक्ति** हैं।
- They are the **invisible shield** that protects communities from disease, women from indignity, and children from lost opportunity.  
ये एक **अदृश्य कवच** हैं जो समुदायों को बीमारियों से, महिलाओं को अपमान से और बच्चों को अवसरों के नुकसान से बचाते हैं।
- A **healthy nation** is a productive nation. A **clean nation** is a resilient one.  
एक **स्वस्थ राष्ट्र** एक उत्पादक राष्ट्र होता है। एक **स्वच्छ राष्ट्र** एक मजबूत राष्ट्र होता है।

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- Today, more than **80% of India's rural households** have **tap water connections**.  
आज भारत के 80% से अधिक ग्रामीण घरों में नल जल कनेक्शन है।
- Over **96% villages** have been declared as **ODF Plus**, more than **5.07 lakh villages** have **solid waste management systems**, and **5.23 lakh villages** have **liquid waste management systems** in place.  
96% से अधिक गांवों को ODF प्लस घोषित किया गया है, 5.07 लाख से अधिक गांवों में ठोस अपशिष्ट प्रबंधन प्रणाली और 5.23 लाख गांवों में तरल अपशिष्ट प्रबंधन प्रणाली स्थापित की गई है।
- Women are not just beneficiaries, they are also **water testers**, **sanitation entrepreneurs**, and **local leaders**.  
महिलाएं केवल लाभार्थी नहीं हैं, वे जल परीक्षक, स्वच्छता उद्यमी और स्थानीय नेता भी हैं।
- Over **2.48 million women** have been trained to **test water quality**, and **women-led Self-Help Groups** are managing **sanitation assets**, **recycling centres**, and **sanitary napkin production**.  
24.8 लाख से अधिक महिलाओं को जल गुणवत्ता परीक्षण के लिए प्रशिक्षित किया गया है और महिलाओं के नेतृत्व वाले स्वयं सहायता समूह स्वच्छता संसाधनों, रीसाइक्लिंग केंद्रों और सैनिटरी नैपकिन निर्माण का प्रबंधन कर रहे हैं।
- This is the vision of a **Viksit Bharat** where no child misses school because of lack of water, no woman walks miles with a pot on her head, and no family loses a loved one to **preventable illness**.  
यह एक विकसित भारत का सपना है, जहां कोई बच्चा पानी की कमी के कारण स्कूल नहीं छोड़ता, कोई महिला सिर पर मटका लेकर मीलों नहीं चलती और कोई परिवार रोकथाम योग्य बीमारी के कारण अपने प्रियजन को नहीं खोता।
- The journey to health is the **journey to dignity**. A toilet brings privacy. Clean water brings opportunity. Waste management protects the environment.  
स्वास्थ्य की यात्रा, गरिमा की यात्रा है। एक शौचालय निजता देता है। स्वच्छ पानी अवसर लाता है। कचरा प्रबंधन पर्यावरण की रक्षा करता है।
- Each link in the **sanitation chain** connects directly to a **healthier, safer society**.  
स्वच्छता श्रृंखला का हर हिस्सा सीधे एक स्वस्थ और सुरक्षित समाज से जुड़ा है।
- The lessons we have learnt highlight the importance of **inter-ministerial collaboration** which is **non-negotiable**.  
हमारे अनुभव मंत्रालयों के बीच सहयोग की अहमियत को दर्शाते हैं, जो कि अपरिहार्य है।

## It is about convergence

यह समन्वय की बात है

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• Since health is not the concern of **one Ministry alone**, it is the outcome of **converged action** across **water, sanitation, nutrition, education, and rural development**.

स्वास्थ्य केवल एक मंत्रालय की जिम्मेदारी नहीं है, यह पानी, स्वच्छता, पोषण, शिक्षा और ग्रामीण विकास के समन्वित प्रयासों का परिणाम है।

• We must recognise that **India's model** is not insular, it is **global**.

हमें यह समझना चाहिए कि **भारत का मॉडल** सीमित नहीं बल्कि वैश्विक है।

• Our **innovations, community-led models, and use of technology**—whether through **real-time dashboards, GOBARdhan biogas plants, or plastic waste management units**—are **blueprints for the world**, especially the **Global South**.

हमारे नवाचार, सामुदायिक नेतृत्व वाले मॉडल और तकनीक का उपयोग — जैसे कि रीयल-टाइम डैशबोर्ड, गोबरधन बायोगैस संयंत्र या प्लास्टिक कचरा प्रबंधन इकाइयां — दुनिया के लिए खाका हैं, खासकर ग्लोबल साउथ के लिए।

• Lastly, we must continue to work through a mutual understanding that every rupee invested in **Water, Sanitation and Hygiene (WASH)** yields **manifold returns** in **health, productivity, gender equity, and environmental sustainability**.

अंत में, हमें इस साझा समझ के साथ कार्य करते रहना चाहिए कि **जल, स्वच्छता और हाइजीन (WASH)** में लगाया गया हर रुपया **स्वास्थ्य, उत्पादकता, लैंगिक समानता, और पर्यावरणीय स्थिरता** में कई गुना लाभ देता है।

• India is committed towards progressing forward on the **United Nations Sustainable Development Goals** and this **World Health Day**, we need to acknowledge and remember that good health begins not in hospitals, but in homes with **access to clean water, safe sanitation, and a shared resolve**.

भारत संयुक्त राष्ट्र के सतत विकास लक्ष्यों की दिशा में आगे बढ़ने के लिए प्रतिबद्ध है और इस **विश्व स्वास्थ्य दिवस** पर, हमें यह स्वीकार करना चाहिए कि अच्छी स्वास्थ्य की शुरुआत अस्पतालों से नहीं, बल्कि **स्वच्छ पानी, सुरक्षित स्वच्छता, और साझा संकल्प** से घरों में होती है।

• As we move forward, **India remains committed** to sharing its journey, **collaborating globally**, and **co-creating a cleaner, healthier, and more resilient world**.

जैसे-जैसे हम आगे बढ़ते हैं, **भारत अपनी यात्रा को साझा करने, वैश्विक स्तर पर सहयोग करने, और एक स्वच्छ, स्वस्थ और अधिक सक्षम दुनिया के निर्माण के लिए प्रतिबद्ध** है।



# Can the U.S. President serve a third term?

What does **22nd Amendment to the U.S. Constitution** state? How is U.S. President Donald Trump trying to **circumvent the 22nd Amendment** and serve one more term as President? Are there circumstances through which the **U.S. Speaker could become U.S. President**? What are the rules in other nations?

## GS Paper II: Comparison of Constitution

### EXPLAINER

Kartikey Singh

#### The story so far:

On March 30, the 78-year-old U.S. President Donald Trump said he's "not joking" about serving a third term in the White House. He further claimed that a legal loophole could make it possible.

#### Does the U.S. Constitution allow it?

The 22nd Amendment to the U.S. Constitution, ratified on February 27, 1951, limits U.S. Presidents to two elected terms. It was brought in response to Franklin D. Roosevelt's unprecedented 'four-term' Presidency (1933-1945), which broke the 'two-term' unwritten precedent set by the nation's first President, George Washington, who voluntarily declined a third term in 1796.

The Amendment prohibits anyone from being elected President more than twice, and if someone has served as President for more than two years of another's term (for example, a Vice President who became President due to the President's death or resignation), they can only be elected once. Thus, effectively, the maximum U.S. Presidential tenure can be 10 years (two years as a successor plus two full terms). For Mr. Trump, elected in 2016 and 2024, the 22nd Amendment unequivocally bars a third term, due to his two elected tenures (2017-2021 and 2025-2029), regardless of their 'non-consecutive' nature.

#### What is the 'VP loophole'?

Despite the 22nd Amendment's clarity, Mr. Trump has suggested ways to circumvent it. One idea he proposed involves J.D. Vance running for President in 2028 with Mr. Trump as Vice President (VP). If elected, Mr. Vance would resign, allowing Trump to assume the Presidency. However, the 12th Amendment blocks this strategy, stating: "No person constitutionally ineligible to



**New rules:** A protest against the policies of U.S. President Donald Trump in California, on April 5. AFP

the office of President shall be eligible to that of Vice-President of the United States." Since the 22nd Amendment bars Mr. Trump from another term, he cannot serve as VP either.

While the VP route is blocked, another theoretical path exists through 'succession', as explained by Professor Bruce G. Peabody in his paper. The 22nd Amendment prohibits a person from being "elected" to the Presidency more than twice but does not bar "serving" beyond two terms. In other words, a twice-elected President could ascend to the Oval Office via the line of succession, such as by becoming Speaker of the House, who is elected by members of the House and need not himself be a member of Congress, if the President and VP become unavailable.

A third pathway – repealing the 22nd

Amendment – is highly unlikely. Under Article V, this requires either a two-thirds vote in both the House and the Senate or a 'constitutional convention' – a process never used – called for by two-thirds (34) of State legislatures, followed by ratification by three-fourths (38) of the 50 States. Given the current U.S. political landscape, the likelihood of Mr. Trump securing a constitutional amendment, which has not been done in the past 33 years, is virtually non-existent.

#### Which world leaders have extended their tenure?

Leaders all over the world have skillfully extended their rule by reshaping constitutional limits. For instance, Vladimir Putin, after two terms as Russia's President (2000-2008), hit the 'consecutive' two-term limit under Article

81(3) of the 1993 Constitution. To circumvent this limit, he then became Prime Minister (2008-2012) as his ally Dmitry Medvedev took the Presidency and extended the Presidential term from four to six years. Returning as President in 2012 and 2018, Mr. Putin, with a 2020 amendment backed by a loyal Duma and judiciary, reset his term count, potentially holding power until 2036.

Türkiye's Recep Tayyip Erdoğan, Prime Minister (2003-2014), turned President, axed term limits via a 2017 referendum, and reshaped Türkiye's system into a Presidential one. Similarly, China's Xi Jinping eliminated the two-term cap in 2018. This change allowed Mr. Xi to rule indefinitely, cementing his hold over the party and the State.

Yet, some leaders thrive without rewriting the rules. In Germany, where chancellors face no 'term limits' but need 'Parliamentary support', Angela Merkel ruled for 16 years. Similarly, Prime Ministers in Canada and Britain, unbound by fixed terms, can lead indefinitely, sustained by 'party confidence'.

#### Why doesn't India have term limits?

Unlike the U.S. Presidential framework, India's Parliamentary system imposes no term limits on its Prime Minister, as tenure depends on retaining the Lok Sabha's confidence (Article 75(3)). This design ensures 'voter sovereignty', 'democratic flexibility', and 'parliamentary accountability', allowing leaders who sustain public trust to serve extended periods. For instance, current Prime Minister Narendra Modi could serve 15 years by 2029. However, the system also includes checks like the "no-confidence" motion, which has historically ended tenures – such as those of V.P. Singh (1990), H.D. Deve Gowda (1997) and Atal Bihari Vajpayee (1999). Moreover, regular elections, coalition dynamics, floor debates, judicial oversight, and a free press ensure a robust democratic balance.

Kartikey Singh is a final year student at RGNUL, Patiala, Punjab.

### THE GIST

▼ The 22nd Amendment to the U.S. Constitution, ratified on February 27, 1951, limits U.S. Presidents to two elected terms.

▼ The 22nd Amendment prohibits a person from being "elected" to the Presidency more than twice but does not bar "serving" beyond two terms.

▼ Unlike the U.S. Presidential framework, India's Parliamentary system imposes no term limits on its Prime Minister, as tenure depends on retaining the Lok Sabha's confidence.

## Can the U.S. President serve a third term?

### क्या अमेरिका का राष्ट्रपति तीसरा कार्यकाल ले सकता है?

On March 30, the 78-year-old U.S. President Donald Trump said he's "not joking" about serving a third term in the White House.

30 मार्च को 78 वर्षीय अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप ने कहा कि वह व्हाइट हाउस में तीसरे कार्यकाल की बात पर "मज़ाक नहीं कर रहे" हैं।

- He further claimed that a legal loophole could make it possible. उन्होंने आगे कहा कि एक कानूनी खामी इसे संभव बना सकती है।

## What does the 22nd Amendment to the U.S. Constitution state?

### अमेरिकी संविधान का 22वां संशोधन क्या कहता है?



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

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• The **22nd Amendment** to the **U.S. Constitution**, ratified on **February 27, 1951**, limits U.S. Presidents to **two elected terms**.

**27 फरवरी 1951** को पारित संविधान का **22वां संशोधन** अमेरिका के राष्ट्रपतियों को **दो निर्वाचित कार्यकाल** तक सीमित करता है।

• It was introduced after **Franklin D. Roosevelt's four-term Presidency (1933–1945)**, which broke the unwritten 'two-term' precedent set by **George Washington** in **1796**.

यह संशोधन **फ्रैंकलिन डी. रूज़वेल्ट** के **चार कार्यकालों (1933–1945)** के बाद लाया गया, जिन्होंने **1796** में **जॉर्ज वॉशिंगटन** द्वारा स्थापित **दो कार्यकाल** की परंपरा को तोड़ा था।

• The Amendment prohibits anyone from being **elected President more than twice**.

यह संशोधन किसी भी व्यक्ति को **दो बार से अधिक राष्ट्रपति पद पर निर्वाचित होने से रोकता है**।

• If someone has served **more than two years of another's term**, they can only be **elected once**.

यदि कोई व्यक्ति **किसी और के कार्यकाल के दो साल से अधिक** सेवा करता है, तो वह केवल **एक बार** ही निर्वाचित हो सकता है।

• Thus, the **maximum U.S. Presidential tenure** can be **10 years** (2 years as successor + 2 full terms).

इस प्रकार, अमेरिकी राष्ट्रपति का **अधिकतम कार्यकाल 10 वर्ष** हो सकता है (2 वर्ष उत्तराधिकारी के रूप में + 2 पूर्ण कार्यकाल)।

• For **Mr. Trump**, elected in **2016 and 2024**, the 22nd Amendment **unequivocally bars a third term**, regardless of their **non-consecutive** nature.

**श्री ट्रंप**, जो **2016 और 2024** में निर्वाचित हुए, के लिए यह संशोधन **स्पष्ट रूप से तीसरे कार्यकाल पर रोक** लगाता है, भले ही कार्यकाल लगातार न हों।

## What is the 'VP loophole'?

### 'वीपी लूपहोल' क्या है?

• Mr. Trump suggested that **J.D. Vance** could run for President in **2028** with **Trump as Vice President**.

**श्री ट्रंप** ने सुझाव दिया कि **2028** में **जेडी वांस** राष्ट्रपति पद के लिए खड़े हो सकते हैं और **ट्रंप उपराष्ट्रपति** बन सकते हैं।

• If elected, **Vance would resign**, and **Trump would assume the Presidency**.

यदि वे निर्वाचित होते हैं, तो **वांस इस्तीफा देंगे** और **ट्रंप राष्ट्रपति पद संभाल लेंगे**।

• However, the **12th Amendment** blocks this by stating:

"No person constitutionally ineligible to the office of President shall be eligible to that of Vice-

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President.”

हालांकि, बारहवें संशोधन में स्पष्ट कहा गया है:

“कोई व्यक्ति जो राष्ट्रपति पद के लिए संवैधानिक रूप से अयोग्य है, वह उपराष्ट्रपति पद के लिए भी अयोग्य है।”

- Since **22nd Amendment** bars Trump from another term, he **cannot serve as VP** either. चूंकि **22वां संशोधन** ट्रंप को एक और कार्यकाल से रोकता है, इसलिए वह **उपराष्ट्रपति भी नहीं बन सकते**।

**Are there circumstances through which the U.S. Speaker could become U.S. President?**  
क्या ऐसे हालात हैं जिसमें अमेरिकी स्पीकर राष्ट्रपति बन सकते हैं?

- One theoretical path exists through **succession**, as explained by **Professor Bruce G. Peabody**.

प्रोफेसर ब्रूस जी. पीबॉडी द्वारा वर्णित एक **सैद्धांतिक रास्ता उत्तराधिकार** के माध्यम से संभव है।

- The 22nd Amendment prohibits someone from being “**elected**” more than twice, but **not from serving**.

22वां संशोधन किसी को **दो बार से अधिक निर्वाचित** होने से रोकता है, लेकिन **सेवा करने** से नहीं।

- A **twice-elected President** could **ascend** to the office through the **line of succession**, e.g., as **Speaker of the House**.

एक **दो बार निर्वाचित राष्ट्रपति उत्तराधिकार की पंक्ति** के माध्यम से जैसे कि **हाउस स्पीकर** बनकर राष्ट्रपति पद संभाल सकते हैं।

- The **Speaker** is elected by House members and **need not be a member of Congress**. स्पीकर को हाउस के सदस्य चुनते हैं और वह **कांग्रेस के सदस्य होने की आवश्यकता नहीं है**।

- If both the **President and VP** become **unavailable**, the **Speaker becomes Acting President**.

यदि **राष्ट्रपति और उपराष्ट्रपति अनुपलब्ध हो जाते हैं**, तो स्पीकर **कार्यवाहक राष्ट्रपति** बन सकते हैं।

**Can the 22nd Amendment be repealed?**

**क्या 22वां संशोधन रद्द किया जा सकता है?**

- Repealing the 22nd Amendment is **highly unlikely**.

22वां संशोधन रद्द करना **बेहद असंभव है**।

- Under **Article V**, it requires:

- A **two-thirds vote** in **both the House and Senate**,
- Or a **constitutional convention** called by **two-thirds (34)** of State legislatures,
- Followed by **ratification by three-fourths (38)** of the 50 States.

**अनुच्छेद 5** के तहत, इसके लिए आवश्यक है:

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- हाउस और सीनेट दोनों में दो-तिहाई बहुमत,
- या 34 राज्यों द्वारा बुलाया गया एक संवैधानिक सम्मेलन,
- और उसके बाद 50 में से 38 राज्यों द्वारा अनुमोदन।

- Given the current U.S. political landscape, this is virtually impossible.  
वर्तमान अमेरिकी राजनीतिक परिदृश्य को देखते हुए, यह लगभग असंभव है।

## Which world leaders have extended their tenure?

### दुनिया के किन नेताओं ने अपने कार्यकाल बढ़ाए हैं?

- **Vladimir Putin (Russia)**: After two terms (2000–2008), he became **PM (2008–2012)** and returned as President in **2012 and 2018**.  
व्लादिमीर पुतिन (रूस): दो कार्यकालों (2000–2008) के बाद वे **प्रधानमंत्री (2008–2012)** बने और फिर **2012 और 2018** में राष्ट्रपति बने।
- In **2020**, a constitutional amendment **reset his term count**, allowing him to rule till **2036**.  
**2020** में एक संशोधन ने उनके कार्यकाल को **रीसेट** कर दिया, जिससे वह **2036** तक शासन कर सकते हैं।
- **Recep Tayyip Erdogan (Türkiye)**: PM (2003–2014), became President, axed term limits via **2017 referendum**, and restructured the system.  
रेसेप तैय्यप एर्दोआन (तुर्किये): पीएम (2003–2014) के बाद राष्ट्रपति बने, **2017 जनमत संग्रह** के जरिए कार्यकाल सीमाएं हटाई और प्रणाली बदली।
- **Xi Jinping (China)**: Removed **two-term cap in 2018**, enabling indefinite rule.  
शी जिनपिंग (चीन): **2018** में दो कार्यकाल की सीमा हटाई, जिससे वे **अनिश्चितकाल** तक शासन कर सकते हैं।

## What about leaders without term limits?

### जिन नेताओं पर कार्यकाल की सीमा नहीं है, उनका क्या?

- **Angela Merkel (Germany)**: Ruled for **16 years**, as Chancellors face no term limit but require **Parliamentary support**.  
एंजेला मर्केल (जर्मनी): **16 वर्षों** तक सत्ता में रहीं क्योंकि चांसलर को कार्यकाल सीमा नहीं, पर संसद का समर्थन चाहिए।
- **PMs in Canada and UK**: Can serve **indefinitely** as long as they have **party confidence**.  
कनाडा और ब्रिटेन के प्रधानमंत्री: जब तक उन्हें पार्टी का विश्वास प्राप्त है, वे **अनिश्चितकाल** तक सत्ता में रह सकते हैं।



## Why doesn't India have term limits?

### भारत में कार्यकाल की सीमा क्यों नहीं है?

• India follows a **Parliamentary system** where PM's tenure depends on **Lok Sabha's confidence** (Article 75(3)).

भारत का संसदीय प्रणाली में प्रधानमंत्री का कार्यकाल लोकसभा के विश्वास (अनुच्छेद 75(3)) पर आधारित होता है।

• This ensures **voter sovereignty**, **democratic flexibility**, and **parliamentary accountability**. यह मतदाता संप्रभुता, लोकतांत्रिक लचीलापन, और संसदीय जवाबदेही सुनिश्चित करता है।

• **PM Narendra Modi** could serve **15 years** by **2029**, if political support continues. प्रधानमंत्री नरेंद्र मोदी अगर समर्थन बना रहे तो **2029 तक 15 वर्षों तक पद पर रह सकते हैं।**

• However, checks like **no-confidence motion**, **regular elections**, **coalition dynamics**, **judicial oversight**, and **free press** ensure balance.

हालांकि, अविश्वास प्रस्ताव, नियमित चुनाव, गठबंधन की राजनीति, न्यायिक निगरानी, और स्वतंत्र प्रेस लोकतंत्र में संतुलन बनाए रखते हैं।



The Supreme Court's 2001 ruling mandated strict anti-ragging committees, while the University Grants Commission's 2009 regulations require students and parents to submit affidavits warning of expulsion for involvement in ragging. NAGARA GOPAL



# A rite of passage or a lifetime of scars?

Despite anti-ragging laws, medical colleges in Telangana remain hotspots for hazing. From verbal humiliation to physical abuse, first-year students endure unspoken harassment, fearing retaliation and institutional indifference. Weak enforcement, deep-rooted power dynamics and poor mental health support keep the vicious cycle alive. **Siddharth Kumar Singh** investigates why ragging persists despite policies meant to end it

**[GS Paper II: Governance]**

**V**ikram (name changed) was just another first-year MBBS student at the Government Medical College Khammam in Telangana, trying to find his way through the maze of lectures, labs and late-night study sessions. On November 12 last year, as he walked back to his hostel, he ran a hand over his freshly trimmed hair. It was nothing drastic; just a routine cut, or so he thought until he stepped into the hostel. The laughter came first – loud, mocking, floating down the corridor from the floor above.

“Nice haircut. Looks like you are trying to copy the Chinese,” a senior sneered. Another voice chimed in, the mocking tone sharper: “Maybe go for something more Indian next time?” The jeers echoed, followed by a chorus of laughter.

Vikram felt a slow burn of embarrassment creep up his spine. He lowered his gaze and hurried into his room. His roommate glanced up, but said nothing. Vikram studied his reflection in the mirror. The more he stared, the more he doubted himself. Maybe if he trimmed a little more, the jokes would stop. Scissors in hand, he made small, hesitant cuts. But the damage had already been done, far beyond his hair.

Humiliated, he decided to seek help. He turned to the college’s anti-ragging officer, assistant professor Rahman expecting support, perhaps even action against the seniors. Instead, the professor eyed him for a moment and said, “Let’s fix this”.

Vikram did not quite understand what it meant, not until he found himself in a salon chair outside the campus. Rahman spoke to the barber in hushed tones and then, clippers buzzed to life. A strip of his hair fell to the floor. Then another. Then another. Within minutes, his head had been shaved.

A lump formed in Vikram’s throat. The humiliation he had tried so hard to escape had come a full circle – not from his seniors this time, but from someone supposed to protect him. That night, sleep eluded him. The whispers in the hostel, the stolen glances, the barely concealed smirks were all inescapable.

By morning, his resolve had hardened. With his heart pounding and mind still reeling, he walked into the principal’s office and filed a complaint. The matter quickly escalated to the Director of Medical Education (DME), and within days, Rahman was suspended.

But the shame clung to Vikram. The helplessness and the fear refused to fade. What should have been the beginning of his medical journey had turned into something else entirely: a brutal introduction to the unspoken realities of life in a medical college.

Rahman’s suspension lasted only two months before it was revoked. The authorities deemed a transfer to Mulga, a remote area in Telangana, as ‘punishment’ – a mere slap on the wrist.

This was no isolated incident. While ragging



Medical students are at a critical stage of emotional development. When they experience intense humiliation, they may struggle to process it, leading to long-term mental health issues.

**DIANA MONTEIRO,**  
Counselling psychologist

has largely been reined in across undergraduate and engineering colleges, medical institutions in Telangana continue to wrestle with its deeply entrenched culture.

## Trial by fear

In March this year, another instance of ragging surfaced, this time at the Government Medical College Nagarkurnool. A first-year student there was subjected to abuse and humiliation by three seniors over a seemingly trivial matter.

The ordeal began with a simple errand – a senior student instructed a junior to fetch a water mug from another senior’s room. Unaware that the occupant was asleep, the junior knocked on the door, unintentionally waking him. The senior’s annoyance quickly spiralled into aggression.

Along with another student, he dragged the junior into their room and forced him into an “air chair” position, a stress posture meant to inflict discomfort. As the junior struggled to hold it, the seniors seized his phone and demanded his UPI PIN.

“When he refused to share his banking details, one of the seniors allegedly hit him with a belt multiple times and slapped him too,” says college principal Ramadevi. Unable to bear the abuse, the shaken student reached out to a relative, who happened to be a police officer.

This incident and Vikram’s ordeal are not mere exceptions. Despite policies, committees and legal mandates, ragging remains embedded in the culture of medical colleges, as seniors blatantly exert their dominance, turning routine interactions with juniors and freshers into opportunities for harassment.

The ‘State of Ragging in India 2022-24’ report by the Society Against Violence in Education (SAVE) highlights this disturbing trend. Medical colleges, though representing just 1.1% of India’s student population, account for 38.6% of total ragging complaints, 35.4% of serious cases, and a staggering 45.1% of ragging-related deaths. In Telangana, the Kaloji Narayana Rao University of Health Sciences alone recorded 25 complaints between 2022 and 2024, states the report.

These numbers stand in stark contrast to the measures supposedly in place. The Supreme Court’s 2001 ruling mandated strict anti-ragging committees, while the University Grants Commission (UGC)’s 2009 regulations required students and parents to submit affidavits warning of expulsion for involvement in ragging. The National Medical Commission (NMC) has its own set of protocols, yet institutions often prefer to handle cases internally rather than reporting them.

For many students, this silence is the real betrayal. Ragging in medical colleges is not just about hierarchy; it is about unchecked power, institutional complacency and a system that too often fails those it claims to protect.

Medical colleges in urban areas like Hyderabad

had seen some progress in recent years, students say. A student from Osmania Medical College, Hyderabad, recalls how, when she joined MBBS in 2018, senior female students reprimanded her for wearing a sleeveless outfit and freshers were barred from the college canteen.

Reading rooms, where students often spend 10 to 12 hours a day preparing for exams, were not always free from judgment either. “When my friends and I were studying there, a few senior boys commented, ‘How are we supposed to focus when you are wearing sleeveless?’ she says. While such regressive views were common back then, she notes her batch has made a conscious decision not to subject juniors to the same treatment.

“Another reason behind the lower incidence of ragging in older, well-established medical colleges is the structured hostel set-up. Institutions like Gandhi, Osmania, and Kakatiya medical colleges have separate hostel blocks for seniors and juniors, minimising interactions between them. However, newly established medical colleges follow a floor-wise hostel division, making it easier for seniors and juniors to cross paths and increasing the chances of ragging,” says a student of Government Medical College, Khammam.

## Persistence despite policies

A senior health official acknowledges that despite ongoing efforts, ragging remains a persistent issue in Telangana’s medical colleges but disciplinary action is taken when complaints arise. “The problem exists at the level of individual institutions. Whenever a complaint is lodged, necessary action is taken,” he says.

However, he underscores that institutional measures alone cannot eliminate ragging. “Real change must come from the students themselves.

Parents, too, have a role in shaping their children’s attitude. Without that, the problem will persist,” the official adds.

He points out that the UGC and NMC regularly monitor ragging complaints and forward them to institutions, with Telangana’s medical colleges receiving three to four cases annually. However, he admits that the actual number could be higher: “Unless students come forward with complaints, we cannot fully gauge the scale of the problem. But in every reported case, action has been taken.”

With medical seats now being filled through the all-India quota, students from diverse States and cultural backgrounds often face challenges adapting to unfamiliar environments. While this diversity enriches the learning experience, the official notes that initial cultural differences sometimes lead to misunderstandings among students.

To tackle ragging, colleges are implementing awareness programmes and involving law enforcement. “At the time of admission, we hold sessions where local police officers, including the district Superintendent Police, issue strict warnings to students,” he says. Despite these efforts, he admits that some incidents persist.

**Beyond administrative interventions**  
Despite institutional measures and disciplinary action, the persistence of ragging points to deeper psychological and social dynamics at play. Experts argue that addressing the issue effectively requires looking beyond administrative interven-

tions and understanding the motivations behind ragging from the perspectives of both the perpetrators and victims.

Diana Monteiro, a counselling psychologist based in Hyderabad, explains that ragging operates on two levels – one that appears harmless and playful, and another that is rooted in power and control. While some seniors view it as a way to build camaraderie, it can quickly escalate into abuse when those seeking dominance use it to assert authority over juniors.

“Ragging works like bullying. It often starts with humiliation but escalates when seniors realise they can control juniors through fear. Over time, some begin to see it as a ‘tradition’ they must continue, turning past victims into future perpetrators,” she says.

The psychological damage for victims can be severe, leading to shame, embarrassment, and, in extreme cases, trauma that leads to anxiety, depression or even suicidal thoughts. “Medical students are at a critical stage of emotional development. When they experience intense humiliation, they may struggle to process it, leading to long-term mental health issues,” she warns.

The silence surrounding ragging remains one of its most troubling aspects. Fear of retaliation and the normalisation of this culture in institutions often prevent victims from speaking out. “Many colleges fail to provide effective mental health support, despite court mandates requiring counsellors on campuses. This lack of resources leaves students with nowhere to turn, deepening their trauma,” Monteiro points out.

Ragging also perpetuates a vicious cycle. Victims who once felt powerless may later become perpetrators themselves. “It is similar to patterns seen in other forms of abuse. Some juniors, after enduring ragging, later inflict the same abuse on others as a way to reclaim a sense of control. For individuals with sadistic tendencies, this cycle becomes even more dangerous,” she warns.

## Awareness and enforcement

Breaking this pattern requires a proactive, top-down approach. Monteiro emphasises that awareness alone is not enough; strict enforcement of anti-ragging policies is essential.

“Education is key, not just for students, but also for faculty, wardens and hostel staff. Consistent messaging from college management, along with strict consequences for violations, can shift campus culture. Enforcement works, but enforcement without education won’t lead to lasting change,” she adds.

Medical colleges are meant to shape the doctors of tomorrow, yet for many students, the first lesson is not about healing but survival. While institutions claim to act on complaints, the silence of countless victims suggests that fear still outweighs trust in the system.

Telangana Director of Medical Education Narendra Kumar acknowledges that ragging remains a persistent issue in medical colleges despite preventive measures. He details the steps taken to curb the issue, including the formation of anti-ragging committees in every institution. “These committees include representatives from the police, legal experts and social activists to ensure a multi-faceted approach.

“Senior students undergo counselling sessions, and faculty members, particularly assistant professors, are assigned night duty in hostels as most incidents occur after dark. Posters detailing legal consequences of ragging are displayed across campuses and booklets outlining punishments are distributed to students,” he explains.

Despite these efforts, Kumar admits incidents still occur: “When such cases arise, parents are informed immediately and an anti-ragging committee meeting is convened to decide the next course of action, whether it be counselling, temporary suspension or expulsion.”



## A rite of passage or a lifetime of scars?

### रैगिंग: एक परंपरा या ज़िंदगी भर के ज़ख्म?

Despite anti-ragging laws, medical colleges in Telangana remain hotspots for hazing.

हालांकि रैगिंग विरोधी कानून मौजूद हैं, फिर भी तेलंगाना के मेडिकल कॉलेज रैगिंग के मुख्य केंद्र बने हुए हैं।

- From **verbal humiliation** to **physical abuse**, first-year students endure unspoken harassment, fearing **retaliation** and institutional indifference.  
मौखिक अपमान से लेकर शारीरिक शोषण तक, प्रथम वर्ष के छात्र प्रतिशोध और संस्थागत उदासीनता के डर से चुपचाप रैगिंग सहते हैं।
- Weak **enforcement**, deep-rooted **power dynamics**, and poor **mental health support** keep the vicious cycle alive.  
कमज़ोर प्रवर्तन, गहरी सत्ता संरचना, और खराब मानसिक स्वास्थ्य सहायता इस दुष्चक्र को बनाए रखते हैं।
- **Siddharth Kumar Singh** investigates why ragging persists despite policies meant to end it.  
सिद्धार्थ कुमार सिंह ने यह जांचा कि नीतियों के बावजूद रैगिंग क्यों बनी हुई है।

### Vikram's Ordeal

#### विक्रम की पीड़ा

- **Vikram** (name changed), a first-year **MBBS student** at **Government Medical College, Khammam**, was mocked by seniors for his haircut on **November 12**.  
विक्रम (बदला हुआ नाम), **खम्मम के सरकारी मेडिकल कॉलेज** का प्रथम वर्ष का **एमबीबीएस छात्र**, को उसके बालों की कटिंग को लेकर **12 नवंबर** को सीनियर छात्रों ने चिढ़ाया।
- Humiliated, he approached the **anti-ragging officer, Assistant Professor Rahman**, for help.  
अपमानित होकर, वह **एंटी-रैगिंग अधिकारी, सहायक प्रोफेसर रहमान** के पास मदद के लिए गया।
- Instead of support, **Rahman** took him to a salon and got his head **shaved**.  
सहायता की जगह, **रहमान** उसे एक सैलून में ले गए और उसका सिर **मुंडवा दिया**।
- Vikram later filed a **complaint** to the **principal**, and the case reached the **Director of Medical Education (DME)**.  
बाद में विक्रम ने **प्राचार्य** को शिकायत दी, और मामला **चिकित्सा शिक्षा निदेशक (DME)** तक पहुँच गया।



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• **Rahman** was suspended but only for **two months**, later transferred to **Mulugu**, a remote area.

रहमान को दो महीने के लिए निलंबित किया गया और बाद में उन्हें **मुलुगु**, एक दूरस्थ क्षेत्र, स्थानांतरित कर दिया गया।

## Trial by Fear

### डर के साये में परीक्षा

• In **March**, at **Government Medical College, Nagarkurnool**, a first-year student was harassed for waking a senior.

मार्च में, **नागरकुरनूल** के सरकारी मेडिकल कॉलेज में एक प्रथम वर्ष के छात्र को एक सीनियर को जगा देने पर प्रताड़ित किया गया।

• He was forced into a stress posture, had his **UPI PIN** demanded, and was **beaten** with a **belt**. उसे एक तनावपूर्ण स्थिति में बैठने को मजबूर किया गया, उससे **यूपीआई पिन** मांगी गई और उसे **बेल्ट** से पीटा गया।

• The victim contacted a **police officer** relative, escalating the issue. पीड़ित ने एक **पुलिस अधिकारी** रिश्तेदार से संपर्क किया जिससे मामला बढ़ गया।

## Alarming Statistics

### चौंकाने वाले आंकड़े

• According to the '**State of Ragging in India 2022–24**' report by **SAVE**, medical colleges account for:

**SAVE** की रिपोर्ट '**स्टेट ऑफ रैगिंग इन इंडिया 2022–24**' के अनुसार, **मेडिकल कॉलेजों** में:

- **1.1%** of India's student population
- भारत की छात्र आबादी का **1.1%**
- But **38.6%** of total ragging complaints
- लेकिन **38.6%** कुल रैगिंग शिकायतें
- **35.4%** of serious ragging cases
- **35.4%** गंभीर रैगिंग के मामले
- **45.1%** of ragging-related deaths
- **45.1%** रैगिंग से संबंधित मौतें

• **Kaloji Narayana Rao University of Health Sciences** in Telangana recorded **25 complaints** between **2022** and **2024**.

तेलंगाना की कालोजी नारायण राव यूनिवर्सिटी ऑफ हेल्थ साइंसेज में **2022** से **2024** के बीच **25** शिकायतें दर्ज की गईं।

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## Policy vs Practice

### नीतियां बनाम वास्तविकता

• Despite the **Supreme Court's 2001 ruling** and **UGC's 2009 regulations**, institutions often prefer to **handle cases internally**.  
हालांकि सुप्रीम कोर्ट के 2001 के फैसले और यूजीसी के 2009 के नियमों के बावजूद, संस्थान अक्सर मामलों को आंतरिक रूप से निपटाना पसंद करते हैं।

• The **National Medical Commission (NMC)** has protocols, yet implementation remains weak.  
नेशनल मेडिकल कमीशन (NMC) के पास दिशानिर्देश हैं, फिर भी क्रियान्वयन कमजोर बना हुआ है।

## Voices from Urban Colleges

### शहरी कॉलेजों से आवाजें

• A student from **Osmania Medical College, Hyderabad**, recalls being judged for **wearing sleeveless dresses in 2018**.

हैदराबाद के उस्मानिया मेडिकल कॉलेज की एक छात्रा को याद है कि 2018 में स्लीवलेस पहनने पर उसे ताने मिले थे।

• Now, her batch ensures juniors are not subjected to such treatment.  
अब, उसका बैच यह सुनिश्चित करता है कि जूनियर्स को ऐसा व्यवहार न सहना पड़े।

• Colleges like **Gandhi, Osmania, and Kakatiya** have separate hostel blocks for **seniors and juniors**, reducing chances of ragging.

गांधी, उस्मानिया और काकतीय जैसे कॉलेजों में सीनियर्स और जूनियर्स के लिए अलग हॉस्टल ब्लॉक हैं, जिससे रैगिंग की संभावना कम होती है।

• Newer colleges follow **floor-wise hostel divisions**, increasing **interactions** and **risk of ragging**.

नए कॉलेजों में मंज़िल आधारित हॉस्टल व्यवस्था होती है, जिससे सीनियर्स-जूनियर्स के संपर्क और रैगिंग के खतरे बढ़ जाते हैं।

## Persistence despite policies

### नीतियों के बावजूद रैगिंग की स्थायित्व

• A senior health official acknowledges that despite **ongoing efforts**, **ragging remains a persistent issue** in **Telangana's medical colleges**, but **disciplinary action** is taken when complaints arise.



एक वरिष्ठ स्वास्थ्य अधिकारी स्वीकार करते हैं कि लगातार प्रयासों के बावजूद, तेलंगाना के मेडिकल कॉलेजों में रैगिंग एक स्थायी समस्या बनी हुई है, लेकिन जब शिकायतें आती हैं तो अनुशासनात्मक कार्रवाई की जाती है।

• “The problem exists at the level of **individual institutions**. Whenever a complaint is lodged, **necessary action** is taken,” he says.

वे कहते हैं, “यह समस्या व्यक्तिगत संस्थानों के स्तर पर मौजूद है। जब भी कोई शिकायत की जाती है, तो आवश्यक कार्रवाई की जाती है।”

• However, he underscores that **institutional measures alone** cannot eliminate ragging. हालांकि, वे इस बात पर ज़ोर देते हैं कि केवल संस्थागत उपायों से रैगिंग को खत्म नहीं किया जा सकता।

• “Real change must come from the **students themselves**. **Parents**, too, have a role in shaping their children’s attitude. Without that, the problem will persist,” the official adds.

अधिकारी कहते हैं, “वास्तविक बदलाव छात्रों से ही आना चाहिए। माता-पिता की भी अपने बच्चों के व्यवहार को आकार देने में भूमिका है। इसके बिना, यह समस्या बनी रहेगी।”

• He points out that the **UGC** and **NMC** regularly monitor **ragging complaints** and forward them to institutions, with **Telangana’s medical colleges receiving 3 to 4 cases annually**.

वे बताते हैं कि यूजीसी और एनएमसी नियमित रूप से रैगिंग की शिकायतों की निगरानी करते हैं और उन्हें संस्थानों को भेजते हैं, जिनमें तेलंगाना के मेडिकल कॉलेजों में हर साल 3 से 4 मामले दर्ज होते हैं।

• However, he admits that the **actual number could be higher**: “Unless **students come forward** with complaints, we cannot fully gauge the scale of the problem.”

हालांकि वे मानते हैं कि वास्तविक संख्या अधिक हो सकती है: “जब तक छात्र आगे आकर शिकायत नहीं करते, हम इस समस्या की पूरी सीमा का आकलन नहीं कर सकते।”

• “But in every **reported case**, **action has been taken**.”

“लेकिन हर दर्ज की गई शिकायत में कार्रवाई की गई है।”

• With **medical seats now being filled through the all-India quota**, students from **diverse States** and **cultural backgrounds** often face challenges adapting to unfamiliar environments.

अब ऑल इंडिया कोटा के माध्यम से मेडिकल सीटें भरी जा रही हैं, जिससे विभिन्न राज्यों और सांस्कृतिक पृष्ठभूमियों से आने वाले छात्रों को नए माहौल में ढलने में कठिनाइयाँ होती हैं।

• While this diversity enriches the learning experience, the official notes that **initial cultural differences** sometimes lead to **misunderstandings among students**.

हालांकि यह विविधता सीखने के अनुभव को समृद्ध बनाती है, अधिकारी बताते हैं कि शुरुआती सांस्कृतिक भिन्नताएं कभी-कभी छात्रों के बीच गलतफहमियों को जन्म देती हैं।

• To tackle ragging, colleges are implementing **awareness programmes** and involving **law enforcement**.



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रैगिंग से निपटने के लिए, कॉलेज जागरूकता कार्यक्रम चला रहे हैं और कानून प्रवर्तन एजेंसियों को शामिल कर रहे हैं।

• “At the time of admission, we hold sessions where **local police officers**, including the **district Superintendent Police**, issue **strict warnings** to students,” he says.

वे कहते हैं, “प्रवेश के समय, हम ऐसे सत्र आयोजित करते हैं जहां **स्थानीय पुलिस अधिकारी**, जिनमें **जिला पुलिस अधीक्षक** भी शामिल होते हैं, छात्रों को **कड़ी चेतावनी** देते हैं।”

• Despite these efforts, he admits that **some incidents persist**.

इन प्रयासों के बावजूद, वे स्वीकार करते हैं कि **कुछ घटनाएं बनी रहती हैं**।

## Beyond administrative interventions

### प्रशासनिक हस्तक्षेप से परे

• Despite **institutional measures** and **disciplinary action**, the persistence of ragging points to deeper **psychological and social dynamics** at play.

**संस्थागत उपायों** और **अनुशासनात्मक कार्रवाई** के बावजूद, रैगिंग की स्थायित्व यह दर्शाती है कि इसके पीछे गहरी **मनोवैज्ञानिक और सामाजिक जटिलताएं** हैं।

• Experts argue that addressing the issue effectively requires looking **beyond administrative interventions** and understanding the **motivations behind ragging**.

विशेषज्ञों का मानना है कि इस समस्या को प्रभावी ढंग से हल करने के लिए **प्रशासनिक हस्तक्षेप से आगे बढ़कर, रैगिंग के पीछे की मानसिकता को समझना ज़रूरी है**।

• **Diana Monteiro**, a counselling psychologist based in **Hyderabad**, explains that ragging operates on **two levels** — one **harmless and playful**, and another rooted in **power and control**.

**हैदराबाद** की काउंसलिंग साइकोलॉजिस्ट **डायना मोंटेरो** बताती हैं कि रैगिंग **दो स्तरों** पर होती है — एक जो **निरापद और खेल जैसा** दिखता है, और दूसरा जो **सत्ता और नियंत्रण** पर आधारित होता है।

• While some seniors view it as a way to **build camaraderie**, it can quickly escalate into **abuse**. **कुछ सीनियर्स इसे मेल-जोल बढ़ाने का तरीका मानते हैं**, लेकिन यह जल्दी ही **शोषण** में बदल सकता है।

• “Ragging works like **bullying**. It often starts with **humiliation** but escalates when seniors realise they can **control juniors through fear**.”

“रैगिंग एक तरह से **बुलीइंग** जैसा काम करती है। यह अक्सर **अपमान** से शुरू होती है लेकिन जब सीनियर्स को लगता है कि वे **डर के ज़रिए जूनियर्स पर नियंत्रण** रख सकते हैं, तो यह बढ़ जाती है।”

• “Over time, some begin to see it as a ‘**tradition**’ they must continue, turning **past victims into future perpetrators**,” she says.



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“समय के साथ, कुछ लोग इसे एक ‘परंपरा’ मानने लगते हैं जिसे उन्हें निभाना है, जिससे पूर्व पीड़ित भविष्य के अपराधी बन जाते हैं,” वे कहती हैं।

• The psychological damage for victims can be **severe**, leading to **shame, depression**, or even **suicidal thoughts**.

पीड़ितों के लिए मनोवैज्ञानिक क्षति **गंभीर** हो सकती है, जिससे **शर्म, डिप्रेशन**, या यहां तक कि **आत्महत्या** के विचार आ सकते हैं।

• “Medical students are at a **critical stage of emotional development**. Intense humiliation can lead to **long-term mental health issues**,” she warns.

“मेडिकल छात्र **भावनात्मक विकास के एक महत्वपूर्ण चरण** में होते हैं। गहरा अपमान उन्हें **दीर्घकालिक मानसिक समस्याओं** की ओर ले जा सकता है,” वे चेतावनी देती हैं।

• The **silence** surrounding ragging remains one of its most troubling aspects.

**रैगिंग के इर्द-गिर्द फैली चुप्पी** इसकी सबसे चिंताजनक बातों में से एक है।

• “Many colleges fail to provide **effective mental health support**, despite court mandates requiring **counsellors** on campuses.”

“कई कॉलेजों में **प्रभावी मानसिक स्वास्थ्य सहायता** नहीं दी जाती, जबकि कोर्ट ने परिसरों में **काउंसलर अनिवार्य** किए हैं।”

• “This lack of resources leaves students with **nowhere to turn**, deepening their trauma,” Monteiro points out.

“यह संसाधनों की कमी छात्रों को **कहीं सहारा न मिल पाने** की स्थिति में छोड़ देती है, जिससे उनका **आघात और गहरा** हो जाता है,” मोंटेरो बताती हैं।

• Ragging also perpetuates a **vicious cycle**.

रैगिंग एक **दुष्चक्र** को भी बनाए रखती है।

• “Victims may later become perpetrators, similar to **other forms of abuse**. Those with **sadistic tendencies** can make this cycle **even more dangerous**.”

“पीड़ित बाद में **अपराधी बन सकते हैं**, जैसे कि **अन्य प्रकार के शोषण** में होता है। जिनमें **विकृत प्रवृत्ति** होती है, वे इस चक्र को **और खतरनाक** बना सकते हैं।”

## Awareness and enforcement

### जागरूकता और प्रवर्तन

• Breaking this pattern requires a **proactive, top-down approach**.

इस चक्र को तोड़ने के लिए एक **सक्रिय, ऊपर से नीचे की रणनीति** की आवश्यकता है।

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• Monteiro emphasises that **awareness alone is not enough**; **strict enforcement of anti-ragging policies** is essential.

मॉटेरो जोर देती हैं कि केवल जागरूकता पर्याप्त नहीं है; रैगिंग विरोधी नीतियों का सख्त पालन अनिवार्य है।

• “**Education** is key, not just for students, but also for **faculty, wardens, and hostel staff.**”

“केवल छात्रों के लिए नहीं, बल्कि फैकल्टी, वार्डन, और हॉस्टल स्टाफ के लिए भी शिक्षा महत्वपूर्ण है।”

• “Consistent messaging from college management, along with **strict consequences** for violations, can shift **campus culture.**”

“कॉलेज प्रबंधन से लगातार संदेश, साथ ही उल्लंघनों पर सख्त दंड, कैंपस की संस्कृति को बदल सकते हैं।”

• “**Enforcement works**, but **enforcement without education** won't lead to **lasting change.**”

“प्रवर्तन काम करता है, लेकिन शिक्षा के बिना प्रवर्तन से स्थायी बदलाव नहीं आएगा।”

• Medical colleges are meant to **shape the doctors of tomorrow**, yet for many students, the **first lesson** is not about healing but **survival.**

मेडिकल कॉलेजों का उद्देश्य भविष्य के डॉक्टरों को तैयार करना है, फिर भी कई छात्रों के लिए पहला सबक इलाज नहीं बल्कि बचाव होता है।

• While institutions claim to act on complaints, the **silence of countless victims** suggests that **fear still outweighs trust** in the system.

हालांकि संस्थान शिकायतों पर कार्रवाई का दावा करते हैं, लेकिन असंख्य पीड़ितों की चुप्पी दिखाती है कि भय अभी भी व्यवस्था पर विश्वास से अधिक है।

• **Telangana Director of Medical Education Narendra Kumar** acknowledges that **ragging remains a persistent issue**, despite preventive measures.

तेलंगाना के चिकित्सा शिक्षा निदेशक नरेंद्र कुमार मानते हैं कि रैगिंग एक स्थायी समस्या है, रोकथाम उपायों के बावजूद।

• He details the steps taken, including the formation of **anti-ragging committees** in every institution.

वे उठाए गए कदमों का विवरण देते हैं, जिनमें हर संस्थान में रैगिंग विरोधी समितियों का गठन शामिल है।

• These committees include **police, legal experts, and social activists** to ensure a **multi-faceted approach.**

इन समितियों में पुलिस, कानूनी विशेषज्ञ, और सामाजिक कार्यकर्ता शामिल होते हैं ताकि बहु-आयामी दृष्टिकोण सुनिश्चित किया जा सके।

• “**Senior students** undergo **counselling sessions**, and **assistant professors** are assigned **night duty in hostels**, as most incidents occur **after dark.**”



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“सीनियर छात्रों की काउंसलिंग कराई जाती है और सहायक प्रोफेसरों को हॉस्टल में रात की इयूटी दी जाती है, क्योंकि अधिकांश घटनाएं रात में होती हैं।”

• Posters detailing **legal consequences** of ragging are **displayed** and **booklets** outlining **punishments** are **distributed** to students.

रैगिंग के कानूनी परिणामों को दर्शाते पोस्टर लगाए जाते हैं और दंड की जानकारी देने वाली पुस्तिकाएं छात्रों को वितरित की जाती हैं।

• Despite these efforts, Kumar admits **incidents still occur**: “When such cases arise, **parents are informed immediately** and the **anti-ragging committee meets** to decide the next course of action — **counselling, suspension, or expulsion.**”

इन प्रयासों के बावजूद, कुमार मानते हैं कि घटनाएं अब भी होती हैं: “जब ऐसे मामले सामने आते हैं, माता-पिता को तुरंत सूचना दी जाती है और रैगिंग विरोधी समिति की बैठक बुलाई जाती है, जिसमें काउंसलिंग, निलंबन, या निष्कासन का निर्णय लिया जाता है।”

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### 3. Despite manifold increase in funding for T.N., some keep crying, says PM Modi

तमिलनाडु को कई गुना फंड मिलने के बावजूद कुछ लोग रोते रहते हैं, पीएम मोदी ने कहा

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**6. West Africa chimps are losing their culture, in another human legacy**

पश्चिम अफ्रीका के चिंपांजी अपनी संस्कृति खो रहे हैं, यह भी इंसानों की एक और विरासत है

**7. West Africa chimps are losing their culture, in another human legacy**

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**8. CAPTCHA: a digital border between humans and bots**

CAPTCHA: इंसानों और बॉट्स के बीच एक डिजिटल सीमा

**9. No tax on up to ₹12 lakh income but why slabs?**

₹12 लाख तक आय पर कोई टैक्स नहीं, फिर स्लैब क्यों?

**10. Why change track to hydrogen?**

हाइड्रोजन की ओर रुख क्यों करना चाहिए?

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वांगचुक के वीडियो पाकिस्तान को कृत्रिम ग्लेशियरों से जल संकट से उबरने में मदद करते हैं



# Pamban bridge an engineering marvel: PM

Modi inaugurates India's first vertical lift sea bridge built over the Palk Strait at a cost of ₹531 crore, and flags off new train services; he says the bridge will have positive effects on the lives of lakhs of people; mega infrastructure projects are being implemented at a faster pace, the PM says, adding that a dedicated freight corridor is also being readied

**GS Paper III: Infrastructure**

**S. Sundar**  
RAMESWARAM

Prime Minister Narendra Modi on Sunday inaugurated the new Pamban railway bridge, which connects the Rameswaram island off the Tamil Nadu coast with Ramanathapuram on the mainland.

Constructed by Rail Vikas Nigam Ltd. at a cost of ₹531 crore, the 2.07-km bridge over the Palk Strait features a 72.5-metre vertical lift span that can be raised to a height of 17 metres, facilitating smooth ship movement underneath while improving rail connectivity.

The Prime Minister also flagged off new train services between Rameswaram and Tambaram, Chennai, laid the foundation stone for the four-lane work on the section of National Highway no. 40 from Walajahpet, near Chennai, in Tamil Nadu to the Andhra Pradesh boundary, and dedicated three other four-lane highway projects in

Tamil Nadu.

The Prime Minister described the new bridge, India's first vertical lift sea bridge, as an "engineering wonder" that "brought together technology and tradition". With the completion of the bridge, a long-pending demand of the people had been fulfilled, he said. "The Pamban rail bridge will support both ease of business and ease of travel. It will have positive effects on the lives of lakhs of people," he said.

#### Trade and tourism

The structure, which has replaced the now-defunct British-era old Pamban railway bridge, is expected to enhance connectivity, while benefiting trade and tourism in Tamil Nadu.

With the Palk Strait being a highly corrosive environment, the bridge has been constructed with stainless steel reinforcement and features high-grade protective paint, the government said. The new bridge is three metres higher than the existing one. Stating that the eco-



**Milestone structure:** Prime Minister Narendra Modi waves as an Indian Coast Guard ship passes under the new Pamban bridge at Rameswaram in Ramanathapuram, Tamil Nadu on Sunday. ANI

nomy of the country had doubled in the past 10 years, the Prime Minister credited the faster growth to the availability of modern infrastructure. "We have increased investment in development of rail connectivity, roads, ports, air-

ports, electricity and piped water supply, and gas supply by around six times," Mr. Modi said.

He further said that mega infrastructure projects are being implemented at a faster pace across the country. He said the Che-

nab rail bridge, one of the highest rail bridges in the world, has been constructed in Jammu and Kashmir in the north; the Atal Sethu in Mumbai, the longest sea bridge, has come up in the Western part of the country; the Bogibeel bridge,

#### "Teething trouble" in bridge lift span causes concern

RAMESWARAM

The vertical lift span of the new Pamban Rail Bridge, inaugurated by Prime Minister Narendra Modi on Sunday, caused concern when the centre span became stuck for some time as it was being lowered. A railway official dismissed the issue as a minor teething problem. "Seven trains, including the inaugural run of the Rameswaram-Tambaram train, have run over the new bridge today," the official stated. The incident with the lift span on the inaugural day proved embarrassing for officials. » PAGE 4

freight corridor was also being readied while work on the bullet train project was under way at fast pace. Modern trains like Vande Bharat, Amrit Bharat and Namo Bharat were making the rail network more advanced.

#### Connectivity in States

The path to a developed nation had become stronger with better regional connectivity, he said, adding every State in the country was getting better connectivity. Earlier, the Prime Minister also offered prayers at Sri Ramanathaswamy temple on the auspicious day of Rama Navami.

Railway Minister Ashwini Vaishnav and Minister of State for Information and Broadcasting, L. Murugan, also spoke.

Tamil Nadu Governor R.N. Ravi; State Ministers Thangam Thennarasu and R.S. Rajakannappan; MPs K. Navas Kani and R. Dharmar; and senior railway officials were present.

#### 'HABIT OF CRYING'

» PAGE 4

## Pamban Bridge an Engineering Marvel: PM

### पंबन ब्रिज एक इंजीनियरिंग चमत्कार: प्रधानमंत्री

Prime Minister Narendra Modi on Sunday inaugurated the new Pamban railway bridge, connecting Rameswaram island (Tamil Nadu coast) with Ramanathapuram on the mainland.

प्रधानमंत्री नरेंद्र मोदी ने रविवार को नए पंबन रेलवे ब्रिज का उद्घाटन किया, जो तमिलनाडु तट के रामेश्वरम द्वीप को रामनाथपुरम से जोड़ता है।

• The bridge was constructed by Rail Vikas Nigam Ltd. at a cost of ₹531 crore and is 2.07 km long.

• यह पुल रेल विकास निगम लिमिटेड द्वारा ₹531 करोड़ की लागत से बनाया गया है और इसकी लंबाई 2.07 किमी है।



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- It features a **72.5-metre vertical lift span**, which can rise to **17 metres**, allowing **ship movement** underneath and improving **rail connectivity**.
- इसमें **72.5 मीटर लंबा वर्टिकल लिफ्ट स्पैन** है, जिसे **17 मीटर तक उठाया जा सकता है**, जिससे **जहाजों की आवाजाही संभव हो और रेल संपर्क बेहतर हो**।
- PM also **flagged off** new train services between **Rameswaram and Tambaram (Chennai)**.
- प्रधानमंत्री ने **रामेश्वरम और तांबरम (चेन्नई)** के बीच **नई ट्रेन सेवाओं को हरी झंडी दिखाई**।
- He laid the foundation stone for **four-lane work** on **National Highway 40** from **Walajahpet (Tamil Nadu)** to **Andhra Pradesh boundary**.
- उन्होंने **नेशनल हाइवे 40 के वालाजाहपेट (तमिलनाडु)** से **आंध्र प्रदेश सीमा तक चार लेन कार्य की आधारशिला रखी**।
- Dedicated **three other four-lane highway projects** in **Tamil Nadu**.
- तमिलनाडु में **तीन अन्य चार-लेन हाईवे परियोजनाओं को राष्ट्र को समर्पित किया**।
- PM called the new bridge **India's first vertical lift sea bridge** and an **"engineering wonder"** that blends **technology and tradition**.
- प्रधानमंत्री ने इस पुल को **भारत का पहला वर्टिकल लिफ्ट सी ब्रिज** और एक **"इंजीनियरिंग चमत्कार"** बताया, जो **प्रौद्योगिकी और परंपरा को जोड़ता है**।
- He said the bridge fulfills a **long-pending demand** and will ease **business and travel** for **lakhs of people**.
- उन्होंने कहा कि यह पुल **लंबे समय से लंबित मांग को पूरा करता है और लाखों लोगों के लिए व्यापार और यात्रा को आसान बनाएगा**।

## Trade and Tourism

### व्यापार और पर्यटन

- The new structure replaces the **old British-era Pamban railway bridge**, enhancing **connectivity, trade, and tourism** in **Tamil Nadu**.
- यह नया ढांचा **ब्रिटिश कालीन पंबन ब्रिज** की जगह लेता है और **तमिलनाडु में संपर्क, व्यापार और पर्यटन को बढ़ावा देता है**।
- The **Palk Strait** is a **highly corrosive area**, so the bridge uses **stainless steel reinforcement** and **high-grade protective paint**.
- **पाक स्ट्रेट एक अत्यधिक संक्षारक क्षेत्र है**, इसलिए पुल में **स्टेनलेस स्टील की मजबूती और उच्च गुणवत्ता वाला सुरक्षात्मक पेंट लगाया गया है**।

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- The new bridge is **3 metres higher** than the old one.  
• नया पुल पुराने पुल से **3 मीटर ऊंचा** है।
- PM said India's **economy has doubled in 10 years** due to **modern infrastructure**.  
• प्रधानमंत्री ने कहा कि भारत की अर्थव्यवस्था **10 वर्षों में दोगुनी** हो गई है, जिसका श्रेय **आधुनिक बुनियादी ढांचे** को जाता है।
- Investments in **rail, roads, ports, airports, electricity, water, gas** have increased **six times**.  
• रेलवे, सड़क, बंदरगाह, हवाई अड्डे, बिजली, जल, गैस में निवेश **छह गुना** बढ़ाया गया है।
- **Mega infrastructure projects** are progressing at a **faster pace** across India.  
• पूरे भारत में मेगा इन्फ्रास्ट्रक्चर परियोजनाएं तेज़ गति से आगे बढ़ रही हैं।
- **Chenab rail bridge** (in Jammu and Kashmir) is one of the **world's highest rail bridges**.  
• चिनाब रेल ब्रिज (जम्मू और कश्मीर में) दुनिया के सबसे ऊंचे रेल पुलों में से एक है।
- **Atal Setu** in Mumbai is India's **longest sea bridge**.  
• मुंबई का अटल सेतु भारत का सबसे लंबा समुद्री पुल है।
- **Bogibeel bridge** in Assam is the **longest rail-cum-road bridge** over Brahmaputra.  
• असम का बोगीबील पुल ब्रह्मपुत्र नदी पर बना सबसे लंबा रेल-सह-सड़क पुल है।
- **Pamban bridge** with **vertical lift span** has been commissioned in **Southern India**.  
• दक्षिण भारत में वर्टिकल लिफ्ट स्पैन वाला पंबन ब्रिज चालू कर दिया गया है।
- A **dedicated freight corridor** is nearing completion, and the **bullet train project** is progressing rapidly.  
• एक समर्पित माल गलियारा लगभग पूरा हो चुका है और **बुलेट ट्रेन परियोजना** भी तेज़ी से आगे बढ़ रही है।
- Trains like **Vande Bharat, Amrit Bharat, and Namoo Bharat** are modernizing the **rail network**.  
• वंदे भारत, अमृत भारत और नमो भारत जैसी ट्रेनें रेल नेटवर्क को **आधुनिक** बना रही हैं।

## Connectivity in States

### राज्यों में संपर्क

- Better **regional connectivity** is strengthening India's path to a **developed nation**.  
• बेहतर क्षेत्रीय संपर्क भारत के विकसित राष्ट्र बनने की राह को मजबूत कर रहा है।
- Every **State** is getting improved **infrastructure and connectivity**.  
• हर राज्य में बुनियादी ढांचा और कनेक्टिविटी बेहतर हो रही है।

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- PM offered prayers at Sri Ramanathaswamy temple on Rama Navami.
- प्रधानमंत्री ने राम नवमी के दिन श्री रामनाथस्वामी मंदिर में पूजा अर्चना की।
- Railway Minister Ashwini Vaishnav and Minister of State L. Murugan also addressed the event.
- रेल मंत्री अश्विनी वैष्णव और राज्य मंत्री एल. मुरुगन ने भी कार्यक्रम को संबोधित किया।
- Dignitaries present included Tamil Nadu Governor R.N. Ravi, Ministers Thangam Thennarasu, R.S. Rajakannappan, MPs K. Navas Kani, R. Dharmar, and senior railway officials.
- कार्यक्रम में तमिलनाडु के राज्यपाल आर.एन. रवि, मंत्री थंगम तेनारासु, आर.एस. राजाकन्नप्पन, सांसद के. नवास कनी, आर. धर्मार, और वरिष्ठ रेलवे अधिकारी उपस्थित थे

## Migrant workers subjected to long working hours, says T.N. Planning Commission study

**GS Paper III: Economy**

**Sahajana Kanuver**  
CHENNAI

A study conducted by the State Planning Commission (SPC) has found that migrant workers are subjected to long working hours, with 53% of them working for more than eight hours a day.

A majority of the migrant labourers in the construction sector work for nearly 10 hours a day. When it comes to manufacturing, half of them work for more than eight hours a day. In the services sector, they work for up to 12 hours a day.

The study was undertaken to find out who the migrant workers moving to the Chennai region are, what kind of employment they find, their level of earnings, and their living conditions while working here. The report also found that better income, lack of opportunities in their hometowns, and better quality of life are some of the reasons why migrants come to Tamil Nadu.

It also provided suggestions on how the State government could support them.

One of the biggest concerns is that around 84% of the workers surveyed are employed without any written contract. Many do

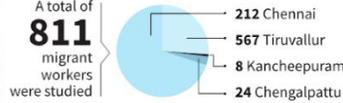
### Tough grind

This study is a follow-up to a similar analysis that was carried out in 2013

A majority of the migrant workers are from Bihar, followed by Odisha, Assam and Uttar Pradesh. They work in sectors such as manufacturing, services and construction

The State Planning Commission has conducted a study to map the socio-economic profile of migrant workers, and understand their state of living, working conditions, the process of migration and its impact on employment. Here are some of the key findings of the study

The current study, carried out from November-December 2024, covered: ■ Chennai ■ Tiruvallur ■ Kancheepuram ■ Chengalpattu



315 migrant workers were covered in the 2013 study. It was done only in the Chennai Corpn.

The 2024 study reveals that the average age of migrant workers in the manufacturing sector is 32 and in services and construction sectors, slightly lower than 31

A majority of the migrants get to know about job opportunities in the Chennai region through their friends and relatives. A few of them get the information through agents and contractors

The SPC study shows that a majority of the migrant workers belong to the most backward sections of society



not receive any allowance/non-wage payment for food, travel or medical purposes from their employers. They also do not receive any social security benefits such as the Provident Fund, health insurance, and paid medical leave. Those in the construction sector have reported worksite hazards.

Over half of the migrant workers live in deplorable conditions at their workplace. Eight out of 10 mi-

grant workers live in kutcha or semi-pucca houses with minimal amenities. Despite the poor quality of housing, a migrant worker typically spends about 15% of his/her monthly income on rent. Access to toilets is another significant issue, with many workers having to rely on shared toilets.

According to the analysis done by the SPC, on average, the monthly earnings of a migrant worker in the Chennai region in 2024

was ₹15,902 – marginally higher than the income required for a family of four to remain above the poverty line, estimated to be ₹14,556 per month. Based on the Household Consumption Expenditure Survey 2022-23 by the Government of India, researchers have estimated the poverty line in 2022-23 to be ₹3,639 for urban India, using the method proposed by the Rangarajan Committee.

Assuming the poverty

line remained unchanged between 2022-2023 and 2024, the income required by a four-member family in Chennai in 2024 would be ₹14,556. The highest average income is earned by migrant workers in the construction sector (₹18,696 per month), followed by those in the services sector (₹17,025 per month) and the manufacturing sector (₹14,534 per month).

Migrant workers say they have gained a lot after moving to the Chennai region. They say they are able to spend more on food, education and health for their families; purchase assets such as land or a house in their native place; repair assets; pay back their debts; and spend on social events such as weddings.

Nearly all migrant workers send money back to their families in their hometowns, but there is a significant variation in the amount remitted by them. "Nearly two-thirds of all migrant workers remit below ₹5,000/month to their homes while nearly one-fourth remit less than ₹1,000 a month. About one-fifth of migrant workers remit more than ₹10,000 a month, that is, more than 60% of their average monthly income," the study said.



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## Migrant workers subjected to long working hours, says T.N. Planning Commission study

तमिलनाडु प्लानिंग कमिशन अध्ययन में कहा गया कि प्रवासी श्रमिक लंबे कार्य घंटों का सामना कर रहे हैं

A study conducted by the State Planning Commission (SPC) has found that migrant workers are subjected to long working hours, with 53% of them working for more than eight hours a day.

राज्य योजना आयोग (SPC) द्वारा किए गए एक अध्ययन में पाया गया कि प्रवासी श्रमिकों को लंबे कार्य घंटों का सामना करना पड़ता है, जिनमें से 53% प्रतिदिन 8 घंटे से अधिक काम करते हैं।

- A majority of the migrant labourers in the **construction sector** work for nearly **10 hours a day**.  
निर्माण क्षेत्र में अधिकांश प्रवासी श्रमिक प्रतिदिन लगभग **10 घंटे** काम करते हैं।
- In the **manufacturing sector**, **half** of them work for **more than eight hours a day**.  
उत्पादन क्षेत्र में **आधे** श्रमिक प्रतिदिन **8 घंटे से अधिक** काम करते हैं।
- In the **services sector**, they work for up to **12 hours a day**.  
सेवा क्षेत्र में श्रमिक प्रतिदिन **12 घंटे तक** काम करते हैं।
- The study was undertaken to find out who the migrant workers moving to the **Chennai region** are, what kind of **employment** they find, their level of **earnings**, and their **living conditions** while working here.  
यह अध्ययन यह जानने के लिए किया गया था कि **चेन्नई क्षेत्र** में आने वाले प्रवासी श्रमिक कौन हैं, उन्हें किस प्रकार का **रोजगार** मिलता है, उनकी **आय का स्तर** क्या है, और वे यहां **कैसे रहते हैं**।
- The report also found that **better income**, **lack of opportunities** in their hometowns, and **better quality of life** are some of the reasons why migrants come to **Tamil Nadu**.  
रिपोर्ट में यह भी पाया गया कि **बेहतर आय**, उनके मूल स्थानों में **अवसरों की कमी**, और **बेहतर जीवन गुणवत्ता** कुछ कारण हैं जिनकी वजह से प्रवासी **तमिलनाडु** आते हैं।
- It also provided suggestions on how the **State government** could support them.  
इसमें यह सुझाव भी दिए गए कि **राज्य सरकार** उन्हें कैसे समर्थन दे सकती है।
- One of the biggest concerns is that around **84%** of the workers surveyed are employed **without any written contract**.  
एक बड़ी चिंता यह है कि सर्वे किए गए लगभग **84%** श्रमिक **बिना किसी लिखित अनुबंध** के कार्यरत हैं।
- Many do not receive any **allowance/non-wage payment** for **food, travel, or medical purposes** from their employers.



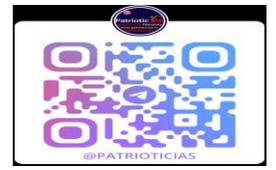
कई श्रमिकों को अपने नियोक्ताओं से खाद्य, यात्रा, या चिकित्सा उद्देश्यों के लिए कोई भत्ता/गैर-वेतन भुगतान नहीं मिलता।

- They also do not receive any **social security benefits** such as **Provident Fund**, **health insurance**, and **paid medical leave**.  
उन्हें भविष्य निधि, स्वास्थ्य बीमा, और सवेतन चिकित्सा अवकाश जैसे सामाजिक सुरक्षा लाभ भी नहीं मिलते।
- Those in the **construction sector** have reported **worksite hazards**.  
निर्माण क्षेत्र में कार्यरत श्रमिकों ने कार्यस्थल खतरों की सूचना दी है।
- Over **half** of the migrant workers live in **deplorable conditions** at their workplace.  
प्रवासी श्रमिकों में से अधिकतर आधे अपने कार्यस्थल पर दुखद स्थिति में रहते हैं।
- **Eight out of 10** migrant workers live in **kutcha or semi-pucca houses** with **minimal amenities**.  
10 में से 8 प्रवासी श्रमिक कच्चे या अर्ध-पक्के घरों में रहते हैं जिनमें न्यूनतम सुविधाएं होती हैं।
- Despite the **poor quality of housing**, a migrant worker typically spends about **15% of his/her monthly income on rent**.  
खराब आवास गुणवत्ता के बावजूद, एक प्रवासी श्रमिक आमतौर पर अपनी मासिक आय का 15% किराए पर खर्च करता है।
- **Access to toilets** is another significant issue, with many workers having to rely on **shared toilets**.  
शौचालय की पहुंच एक और गंभीर समस्या है, कई श्रमिकों को साझा शौचालयों पर निर्भर रहना पड़ता है।
- According to the SPC, the **average monthly earnings** of a migrant worker in the **Chennai region in 2024** was **₹15,902** — marginally higher than the income required for a **family of four to remain above the poverty line**, estimated to be **₹14,556** per month.  
SPC के अनुसार, चेन्नई क्षेत्र में 2024 में एक प्रवासी श्रमिक की औसत मासिक आय ₹15,902 थी — जो एक चार सदस्यीय परिवार को गरीबी रेखा से ऊपर रखने के लिए आवश्यक ₹14,556 प्रति माह की आय से थोड़ी अधिक थी।
- Based on the **Household Consumption Expenditure Survey 2022-23**, the **poverty line** in **urban India** was estimated at **₹3,639** using the **Rangarajan Committee** method.  
घरेलू उपभोग व्यय सर्वेक्षण 2022-23 के अनुसार, शहरी भारत में गरीबी रेखा ₹3,639 निर्धारित की गई थी, जो रंगराजन समिति की पद्धति पर आधारित है।
- Assuming the poverty line remained unchanged between **2022-2024**, the income required by a four-member family in **Chennai** in 2024 would be **₹14,556**.  
मानते हुए कि 2022 से 2024 तक गरीबी रेखा अपरिवर्तित रही, चेन्नई में एक चार सदस्यीय परिवार के लिए आवश्यक आय ₹14,556 होगी।
- The **highest average income** is earned by migrant workers in the **construction sector** (**₹18,696/month**), followed by the **services sector** (**₹17,025/month**), and the **manufacturing sector** (**₹14,534/month**).



प्रवासी श्रमिकों की सबसे अधिक औसत आय निर्माण क्षेत्र में ₹18,696/माह, इसके बाद सेवा क्षेत्र में ₹17,025/माह, और उत्पादन क्षेत्र में ₹14,534/माह है।

- Migrant workers say they have gained a lot after moving to the **Chennai region**.  
प्रवासी श्रमिकों का कहना है कि चेन्नई क्षेत्र में आने के बाद उन्हें काफी लाभ हुआ है।
- They say they are able to spend more on **food, education, and health** for their families; purchase **assets** such as **land or a house** in their native place; **repair assets; pay back debts**; and spend on **social events** such as **weddings**.  
वे कहते हैं कि वे अपने परिवारों के लिए भोजन, शिक्षा, और स्वास्थ्य पर अधिक खर्च कर पाते हैं; अपने मूल स्थान पर भूमि या घर जैसी संपत्तियां खरीदते हैं; संपत्तियों की मरम्मत करते हैं; कर्ज चुकाते हैं; और शादियों जैसे सामाजिक आयोजनों पर खर्च करते हैं।
- Nearly **all migrant workers** send **money back** to their families in their hometowns, but there is a significant variation in the **amount remitted**.  
लगभग सभी प्रवासी श्रमिक अपने परिवारों को पैसे भेजते हैं, लेकिन भेजी गई राशि में भारी अंतर होता है। **Nearly two-thirds** of all migrant workers remit **below ₹5,000/month**, while **one-fourth remit less than ₹1,000/month**.  
लगभग दो-तिहाई प्रवासी श्रमिक प्रति माह ₹5,000 से कम, जबकि एक-चौथाई ₹1,000 से कम भेजते हैं।



- About one-fifth of migrant workers remit more than ₹10,000/month, which is more than 60% of their average monthly income.

लगभग एक-पांचवां प्रवासी श्रमिक प्रति माह ₹10,000 से अधिक भेजते हैं, जो उनकी औसत मासिक आय का 60% से अधिक है।

## Despite manifold increase in funding for T.N., some keep crying, says PM Modi

**GS Paper III: Infrastructure**  
**The Hindu Bureau**  
RAMESWARAM

Despite a manifold increase in allocation of funds from the Centre to Tamil Nadu, "some people" have the habit of crying for no reason, Prime Minister Narendra Modi said in Rameswaram on Sunday.

Addressing a public meeting after inaugurating the new Pamban rail bridge, Mr. Modi, in the presence of Ministers Thangam Thennarasu and R.S. Rajakannappan, said: "Before 2014, Tamil Nadu used to get only an annual allocation of ₹900 crore for railway projects. But, this year, the budgetary allocation for such projects is over ₹6,000 crore."

A total of 77 railway stations were being redeveloped. Besides, "generous allocations" have been made for rural roads and highway projects in Tamil Nadu. Modern public transport system, too, was being built, he added.

The Prime Minister further said that the Centre's contribution was huge in housing schemes and crop insurance. The PM-KISAN and Jan Aushadhi Scheme would benefit crores of people in Tamil Nadu, he added.

It may be recalled that the DMK had been accusing the Centre of meting



**Subtle dig:** Prime Minister Narendra Modi speaking after inaugurating the new Pamban rail bridge on Sunday. L. BALACHANDAR

out a step-motherly treatment to Tamil Nadu over allocation of funds.

**Better infrastructure**  
Mr. Modi said that the Centre was also taking steps to provide better infrastructure to fishermen. The Government of India, he said, was standing with the fishermen.

A total of 3,100 fishermen who were arrested by the Sri Lankan Navy for poaching in the island nation's waters, were brought back to India in the last 10 years, he added.

He further said that the Centre had successfully

brought back a few fishermen from the jaws of death, after they were given capital punishment by Sri Lankan courts.

Mr. Modi said that the Centre had sanctioned 11 Government medical colleges for Tamil Nadu, and appealed to the State government to start medical courses with Tamil as the medium of instruction.

Stating that good governance meant that the taxpayers' money benefited the poorest of the poor, Mr. Modi said that PM-KISAN scheme and Crop Insurance benefited the poor people of the State.

## Despite manifold increase in funding for T.N., some keep crying, says PM Modi

तमिलनाडु को कई गुना फंड मिलने के बावजूद कुछ लोग रोते रहते हैं, पीएम मोदी ने कहा

Despite a manifold increase in allocation of funds from the Centre to Tamil Nadu, "some people" have the habit of crying for no reason, Prime Minister Narendra Modi said in Rameswaram on Sunday.

केंद्र से तमिलनाडु को फंड के कई गुना बढ़े आवंटन के बावजूद, कुछ लोगों को बिना कारण रोने की आदत है, प्रधानमंत्री नरेंद्र मोदी ने रविवार को रामेश्वरम में कहा।

•Addressing a public meeting after inaugurating the new Pamban rail bridge, Mr. Modi, in the presence of Ministers Thangam Thennarasu and R.S. Rajakannappan, said:

नई पंबन रेलवे पुल के उद्घाटन के बाद एक सार्वजनिक सभा को संबोधित करते हुए, श्री मोदी ने मंत्री थंगम तेनारासु और आर.एस. राजकन्नापन की उपस्थिति में कहा:

"Before 2014, Tamil Nadu used to get only an annual allocation of ₹900 crore for railway projects. But this year, the budgetary allocation for such projects is over ₹6,000 crore."

"2014 से पहले, तमिलनाडु को रेलवे परियोजनाओं के लिए केवल ₹900 करोड़ का वार्षिक आवंटन मिलता था। लेकिन इस वर्ष, ऐसे प्रोजेक्ट्स के लिए ₹6,000 करोड़ से अधिक का बजट आवंटन किया गया है।"

**A total of 77 railway stations were being redeveloped.**

**कुल 77 रेलवे स्टेशनों का पुनर्विकास किया जा रहा है।**



- Besides, “generous allocations” have been made for rural roads and highway projects in Tamil Nadu.  
इसके अलावा, तमिलनाडु में ग्रामीण सड़कों और हाईवे प्रोजेक्ट्स के लिए "उदार आवंटन" किया गया है।
- A modern public transport system was also being built, he added.  
उन्होंने कहा कि एक आधुनिक सार्वजनिक परिवहन प्रणाली भी बनाई जा रही है।  
The Prime Minister further said that the Centre’s contribution was huge in housing schemes and crop insurance.  
प्रधानमंत्री ने आगे कहा कि आवास योजनाओं और फसल बीमा में केंद्र का योगदान बहुत बड़ा है।
- The PM-KISAN and Jan Aushadhi Scheme would benefit crores of people in Tamil Nadu, he added.  
उन्होंने कहा कि पीएम-किसान और जन औषधि योजना तमिलनाडु में करोड़ों लोगों को लाभ पहुंचाएगी।
- It may be recalled that the DMK had been accusing the Centre of step-motherly treatment to Tamil Nadu over allocation of funds.  
यह याद किया जाना चाहिए कि डीएमके केंद्र पर तमिलनाडु को फंड आवंटन को लेकर सौतेला व्यवहार करने का आरोप लगाती रही है।
- Better infrastructure**  
**बेहतर बुनियादी ढांचा**
- Mr. Modi said that the Centre was also taking steps to provide better infrastructure to fishermen.  
श्री मोदी ने कहा कि केंद्र मछुआरों को बेहतर बुनियादी ढांचा प्रदान करने के लिए भी कदम उठा रहा है।
- The Government of India, he said, was standing with the fishermen.  
उन्होंने कहा कि भारत सरकार मछुआरों के साथ खड़ी है।
- A total of 3,100 fishermen who were arrested by the Sri Lankan Navy for poaching in the island nation’s waters, were brought back to India in the last 10 years, he added.  
उन्होंने कहा कि पिछले 10 वर्षों में श्रीलंकाई नौसेना द्वारा शिकार के लिए गिरफ्तार किए गए कुल 3,100 मछुआरों को भारत वापस लाया गया है।
- He further said that the Centre had successfully brought back a few fishermen from the jaws of death, after they were given capital punishment by Sri Lankan courts.  
उन्होंने आगे कहा कि श्रीलंकाई अदालतों द्वारा मृत्युदंड दिए जाने के बाद केंद्र ने कुछ मछुआरों को मौत के मुंह से सफलतापूर्वक वापस लाया।
- Mr. Modi said that the Centre had sanctioned 11 Government medical colleges for Tamil Nadu, and appealed to the State government to start medical courses with Tamil as the medium of instruction.  
श्री मोदी ने कहा कि केंद्र ने तमिलनाडु के लिए 11 सरकारी मेडिकल कॉलेजों को मंजूरी दी है, और राज्य सरकार से तमिल को शिक्षा का माध्यम बनाकर मेडिकल कोर्स शुरू करने की अपील की।
- Stating that good governance meant that the taxpayers’ money benefited the poorest of the poor, Mr. Modi said that PM-KISAN scheme and Crop Insurance benefited the poor people of the State.  
यह कहते हुए कि अच्छा शासन का मतलब है कि करदाताओं का पैसा सबसे गरीब लोगों को लाभ



पहुंचाए, श्री मोदी ने कहा कि पीएम-किसान योजना और फसल बीमा से राज्य के गरीब लोगों को लाभ हुआ है।

## Aircraft carriers key to winning sea battles: French Navy officer

It is necessary to transfer skills of operating a carrier from one generation to the next, says Captain George Florentine of aircraft carrier *Charles de Gaulle*; Rear Admiral Jacques Mallard stresses need to build partnerships in the Indo-Pacific

**GS Paper III: Internal Security**  
ONBOARD CHARLES DE GAULLE OFF GOA

**A**ircraft carriers are the "key" to winning battles at sea, says George Florentine, Captain of the French aircraft carrier *Charles de Gaulle*.

Several nations in the Indo-Pacific have been fielding more and bigger carriers despite questions about their viability. The French Navy too is looking to induct a new carrier by 2038 while the Indian Navy's proposal for a second Indigenous Aircraft Carrier, a repeat of the *INS Vikrant* with some modifications, is awaiting approval of the Defence Acquisition Council.

"Many nations want a powerful Navy and they are building carriers. A key concern has been the need to transfer the skills of operating a carrier from one generation to the next, so that the new generation can operate a bigger carrier with newer technologies... and can win the battle at sea," he said, while speaking to *The Hindu* on board the *Charles de Gaulle*



French carrier *Charles de Gaulle*, as seen from a helicopter soon after taking off, in the Arabian Sea off the coast of Goa. DINAKAR PERI

during the bilateral naval exercise Varuna held in the Arabian Sea off Goa from March 19 to 22.

On naval cooperation, Captain Florentine, who took part in the first edition of Varuna as a young officer, said things have changed since those times. "Nowadays, we have good camaraderie, we can exchange a lot of information. When you want to operate together at the sea, it is important to talk to each other," he said, stressing on communication. "We need to have same procedures, which is not exactly the case with India but our procedures are close

enough to be able to cooperate closely. What is important is that you know your counterparts. That is why we have commanding officers visit each other's ships to build trust," he stated.

The *Charles de Gaulle* also exercised with a U.S. carrier and Japan's helicopter carrier.

As Exercise Varuna was under way, Rear Admiral Jacques Mallard, Chief of the French Carrier Strike Group, stressed that building partnerships in the Indo-Pacific reflects the interest in maintaining the status quo, showing that the "common space which

is the high seas needs to be shared".

A new wave of maritime activity is under way in the Indo-Pacific region amid the rapid expansion of the Chinese Navy and its presence in the Indian Ocean Region. As per the U.S. Department of Defence, Chinese Navy is the world's largest with over 370 platforms.

### Rafale sparks interest

The nuclear-powered *Charles de Gaulle* operates Rafale-M fighter jets, E-2 Hawkeye early warning aircraft and helicopters. Joint operations with the Rafale-Ms were of particular interest to the Indian Navy as it is looking to induct them in a few years. A deal for 26 Rafale-Ms is awaiting final approval from the Cabinet Committee on Security and expected to be signed this month.

Rear Admiral Mallard said the Indian side had a lot of questions about the Rafales when they visited the ship and spoke to their French counterparts. He also noted that Indian Navy pilots already had good knowledge of the Rafales as the Indian Air Force op-

erated the jets. "Most of the questions were concerning the handling (the jets) on board the aircraft carrier," he stated, adding that they were shown the hanger, their handling, and how they are transported.

Captain Guillaume, Carrier Air Wing Commander onboard *Charles de Gaulle*, said the joint training during Exercise Varuna was "very profitable" and they their way of working was very close to the operations in India. On the operation of the air wing on the *Charles de Gaulle*, he added, "We have close to 100% availability of the jets everyday, we are able to have up to 40 to 50 flights each day from the carrier."

The Chinese Navy operates two aircraft carriers, *Liaoning* and *Shandong*, both of which are conventionally powered and use ski-jump ramps to launch aircraft. The third, *Fujian*, with a displacement of 80,000 tonnes and electromagnetic catapults to launch aircraft, has completed seven rounds of sea trials. A fourth carrier, likely to be nuclear powered, is under construction.

## Aircraft carriers key to winning sea battles: French Navy officer

समुद्री लड़ाइयों में जीत के लिए एयरक्राफ्ट कैरियर्स अहम: फ्रेंच नौसेना अधिकारी

Aircraft carriers are the "key" to winning battles at sea, says George Florentine, Captain of the French aircraft carrier *Charles de Gaulle*.

फ्रेंच एयरक्राफ्ट कैरियर चार्ल्स डे गॉल के कप्तान जॉर्ज फ्लोरेंटाइन ने कहा कि समुद्र में लड़ाइयों में जीत के लिए एयरक्राफ्ट कैरियर्स "कुंजी" हैं।

- Several nations in the **Indo-Pacific** have been fielding **more and bigger carriers** despite questions about their viability.
- हिंद-प्रशांत क्षेत्र में कई देश बड़े और अधिक कैरियर्स तैनात कर रहे हैं, हालांकि उनकी व्यवहार्यता पर सवाल हैं।
- The **French Navy** is also looking to induct a **new carrier by 2038**, while the **Indian Navy's proposal** for a second **Indigenous Aircraft Carrier**, a repeat of the **INS Vikrant** with modifications, is awaiting approval from the **Defence Acquisition Council**.



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• फ्रेंच नौसेना 2038 तक एक नया कैरियर शामिल करने की योजना बना रही है, जबकि भारतीय नौसेना का दूसरा स्वदेशी एयरक्राफ्ट कैरियर (संशोधनों के साथ आईएनएस विक्रान्त की पुनरावृत्ति) रक्षा खरीद परिषद की मंजूरी का इंतजार कर रहा है।

• "Many nations want a **powerful Navy** and are building carriers. A key concern has been the **transfer of skills** of operating a carrier from one generation to the next," said Captain Florentine during **Exercise Varuna** in the **Arabian Sea off Goa** from **March 19 to 22**.

• कप्तान फ्लोरेटाइन ने 19 से 22 मार्च तक गोवा के पास अरब सागर में हुए एक्सरसाइज वरुणा के दौरान कहा, "कई देश एक शक्तिशाली नौसेना चाहते हैं और कैरियर्स बना रहे हैं। एक मुख्य चिंता एक पीढ़ी से अगली पीढ़ी को कैरियर संचालन की दक्षता स्थानांतरित करने की रही है।"

• He stressed that the **new generation** must learn to operate **bigger carriers with newer technologies** to win sea battles.

• उन्होंने जोर दिया कि नई पीढ़ी को बड़े और नई तकनीकों वाले कैरियर्स संचालित करना आना चाहिए ताकि वे समुद्र की लड़ाइयों में जीत सकें।

• On **naval cooperation**, Captain Florentine said that over time there is **good camaraderie** and the ability to **exchange information**.

• नौसेना सहयोग पर, कप्तान फ्लोरेटाइन ने कहा कि समय के साथ अच्छी मित्रता और जानकारी साझा करने की क्षमता विकसित हुई है।

• He said, "When you want to operate together at sea, **communication** is important. Procedures must be **similar**, which is **almost the case with India**."

• उन्होंने कहा, "जब आप समुद्र में एक साथ संचालन करना चाहते हैं, तो संचार महत्वपूर्ण होता है। प्रक्रियाएं मिलती-जुलती होनी चाहिए, जो कि भारत के साथ लगभग मेल खाती हैं।"

• He highlighted that **commanding officers** visit each other's ships to **build trust**.

• उन्होंने बताया कि कमांडिंग ऑफिसर एक-दूसरे के जहाजों पर जाकर विश्वास कायम करते हैं।

• The **Charles de Gaulle** also exercised with a **U.S. carrier** and **Japan's helicopter carrier**.

• चार्ल्स डे गॉल ने अमेरिकी कैरियर और जापान के हेलिकॉप्टर कैरियर के साथ भी अभ्यास किया।

• During **Exercise Varuna**, **Rear Admiral Jacques Mallard**, Chief of the **French Carrier Strike Group**, emphasized the importance of **building partnerships in the Indo-Pacific** to maintain the **status quo**.

• एक्सरसाइज वरुणा के दौरान, फ्रेंच कैरियर स्ट्राइक ग्रुप के प्रमुख रियर एडमिरल जैक्स मलार्ड ने हिंद-प्रशांत में साझेदारियों के निर्माण की आवश्यकता पर जोर दिया, ताकि यथास्थिति बनाए रखी जा सके।

• He stated that the **high seas are a common space** and need to be **shared**.

• उन्होंने कहा कि उच्च समुद्र एक साझा स्थान है और इसे साझा किया जाना चाहिए।

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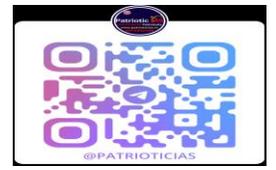
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• A new wave of **maritime activity** is underway in the **Indo-Pacific** due to the **rapid expansion of the Chinese Navy** in the **Indian Ocean Region**.

• हिंद-प्रशांत क्षेत्र में चीनी नौसेना के तेज़ विस्तार के कारण समुद्री गतिविधियों की नई लहर शुरू हो गई है, विशेषकर हिंद महासागर क्षेत्र में।

• According to the **U.S. Department of Defence**, the **Chinese Navy** is now the **world's largest**, with **over 370 platforms**.

• अमेरिकी रक्षा विभाग के अनुसार, चीनी नौसेना अब दुनिया की सबसे बड़ी नौसेना है, जिसमें 370 से अधिक प्लेटफॉर्म हैं।

## Rafale sparks interest

### राफेल ने आकर्षण बढ़ाया

• The nuclear-powered **Charles de Gaulle** operates **Rafale-M fighter jets**, **E-2 Hawkeye** early warning aircraft, and **helicopters**.

• परमाणु संचालित चार्ल्स डे गॉल में राफेल-एम फाइटर जेट्स, ई-2 हॉकआई अर्ली वॉर्निंग एयरक्राफ्ट, और हेलिकॉप्टर्स तैनात हैं।

• Joint operations with the **Rafale-Ms** were of particular interest to the **Indian Navy**, which is looking to **induct them** in a few years.

• भारतीय नौसेना, जो अगले कुछ वर्षों में राफेल-एम को शामिल करने की योजना बना रही है, को इन संयुक्त अभियानों में विशेष रुचि रही।

• A deal for **26 Rafale-Ms** is awaiting final approval from the **Cabinet Committee on Security** and is expected to be **signed this month**.

• 26 राफेल-एम के लिए एक सौदा सुरक्षा पर मंत्रिमंडलीय समिति से अंतिम मंजूरी की प्रतीक्षा में है और इसके इस महीने हस्ताक्षरित होने की संभावना है।

• **Rear Admiral Mallard** said the Indian side had many questions about the **Rafales** when they visited the ship and spoke to **French counterparts**.

• रियर एडमिरल मलार्ड ने कहा कि जब भारतीय पक्ष ने जहाज़ का दौरा किया और फ्रेंच अधिकारियों से बातचीत की, तो उनके पास राफेल को लेकर कई सवाल थे।

• He noted that **Indian Navy pilots** already had **good knowledge** of the **Rafales** as the **Indian Air Force** operates them.

• उन्होंने बताया कि भारतीय नौसेना के पायलटों को पहले से ही राफेल की अच्छी जानकारी है क्योंकि इन्हें भारतीय वायुसेना संचालित करती है।

• Most of the questions were about **handling the jets on board** the aircraft carrier.

• अधिकतर सवाल एयरक्राफ्ट कैरियर पर जेट्स के संचालन से संबंधित थे।

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- They were shown the **hangar**, handling process, and how the jets are **transported**.
- उन्हें हैंगर, संचालन प्रक्रिया और जेट्स के स्थानांतरण की जानकारी दी गई।
- Captain Guillaume, **Carrier Air Wing Commander**, said joint training during **Exercise Varuna** was “very profitable” and their working style was **very close to Indian operations**.
- कैप्टन गिलॉम, कैरियर एयर विंग कमांडर, ने कहा कि एकसरसाइज वरुणा के दौरान संयुक्त प्रशिक्षण “बहुत लाभकारी” था और उनका कार्य तरीका भारतीय अभियानों से बहुत मिलता-जुलता है।
- He added, “We have **close to 100% availability** of jets every day and conduct **up to 40 to 50 flights** daily from the carrier.”
- उन्होंने जोड़ा, “हमारे पास हर दिन लगभग **100% जेट उपलब्धता** होती है और हम प्रतिदिन **40 से 50 उड़ानें** कैरियर से करते हैं।”
- The **Chinese Navy** operates **two aircraft carriers** – **Liaoning** and **Shandong**, both **conventionally powered** and using **ski-jump ramps** to launch aircraft.
- चीनी नौसेना दो एयरक्राफ्ट कैरियर्स संचालित करती है – लियाओनिंग और शानडोंग, जो दोनों ही पारंपरिक ऊर्जा से चालित हैं और स्की-जंप रैंप का उपयोग करते हैं।
- The **third carrier**, **Fujian**, with **80,000 tonnes displacement** and **electromagnetic catapults**, has completed **seven rounds of sea trials**.
- तीसरा कैरियर फुजियान, जिसकी डिस्प्लेसमेंट **80,000 टन** है और जो इलेक्ट्रोमैग्नेटिक कैटापल्ट्स का उपयोग करता है, ने सात समुद्री परीक्षण पूरे कर लिए हैं।
- A **fourth carrier**, likely to be **nuclear-powered**, is **under construction**.
- एक चौथा कैरियर, जो संभवतः परमाणु-संचालित होगा, निर्माणाधीन है।



# Semaglutide reduces cardiovascular event risk in diabetes patients: study

**GS Paper III: S&T**

**Bindu Shajan Perappadan**  
NEW DELHI

Diabetes management should not be focused narrowly on blood sugar levels, but must concurrently work at protecting cardiac and renal health too, says a recent study that found daily oral semaglutide (an anti-diabetic medication used for the treatment of type 2 diabetes and an anti-obesity medication used for long-term weight management) could cut the risk of heart attacks, strokes, and cardiovascular death by 14%.

In a Phase 3 trial of people with diabetes, the study, called SOUL, tested Rybelsus – Novo Nordisk’s diabetes drug administered in oral form – against a placebo, in trial participants already receiving standard medications.

Semaglutide was approved in June 2021 for



Semaglutide was approved for chronic weight management in those with obesity and at least one weight-related condition. GETTY IMAGES

chronic weight management in those with obesity and at least one weight-related condition, in addition to diet and exercise.

The SOUL trial was initiated in 2019, with the key objective to demonstrate that oral semaglutide lowers the risk of major adverse cardiovascular events (a composite endpoint consisting of cardiovascular death, non-fatal

myocardial infarction and non-fatal stroke) compared with placebo, both added to standard of care in patients with type 2 diabetes and established Cardiovascular Disease (CVD) and Chronic Kidney Disease (CKD).

“The SOUL trial demonstrates statistically significant reductions in the primary composite endpoint of major adverse car-

diovascular events (MACE), encompassing myocardial infarction, stroke, or cardiovascular death, in adults with type 2 diabetes mellitus (T2DM) and established CVD and/or CKD. The data reinforce oral semaglutide’s role as the first and only approved oral glucagon-like peptide-1 receptor agonist (GLP-1 RA) to achieve a significant reduction in cardiovascular risk within this high-risk population,” V. Mohan, chairman, Dr. Mohan’s Diabetes Specialities Centre, said.

A.G. Unnikrishnan, CEO and chief of endocrinology at the Chellaram Diabetes Institute, Pune, said the SOUL trial has shown that it can reduce the risk of major cardiovascular events, regardless of whether participants were already using sodium-glucose cotransporter-2 inhibitor (SGLT2i).

## Semaglutide reduces cardiovascular event risk in diabetes patients: study

**सेमाग्लूटाइड डायबिटीज़ रोगियों में हृदय संबंधी घटनाओं के जोखिम को कम करता है: अध्ययन**

Diabetes management should not be focused narrowly on blood sugar levels, but must concurrently work at protecting cardiac and renal health too, says a recent study that found daily oral semaglutide could cut the risk of heart attacks, strokes, and cardiovascular death by 14%.



डायबिटीज़ प्रबंधन केवल ब्लड शुगर लेवल्स पर केंद्रित नहीं होना चाहिए, बल्कि इसके साथ-साथ हृदय और गुर्दे की सेहत की रक्षा पर भी ध्यान देना चाहिए, एक हालिया अध्ययन के अनुसार जिससे पता चला कि प्रतिदिन मौखिक सेमाग्लूटाइड का सेवन दिल के दौर, स्ट्रोक और हृदय मृत्यु के जोखिम को 14% तक कम कर सकता है।

• In a **Phase 3 trial** of people with diabetes, the study, called **SOUL**, tested **Rybelsus** — **Novo Nordisk's** diabetes drug administered in oral form — against a placebo, in trial participants already receiving standard medications.

डायबिटीज़ रोगियों पर किए गए फेज़ 3 ट्रायल में, **SOUL** नामक इस अध्ययन ने **Rybelsus** — जो **Novo Nordisk** की मौखिक रूप से दी जाने वाली डायबिटीज़ की दवा है — की तुलना प्लेसिबो से की, इन प्रतिभागियों को पहले से ही मानक दवाएं दी जा रही थीं।

• Semaglutide was approved in **June 2021** for **chronic weight management** in those with **obesity** and at least one **weight-related condition**, in addition to diet and exercise.

सेमाग्लूटाइड को जून 2021 में मोटापे और कम से कम एक वजन संबंधी स्थिति वाले लोगों के लिए लंबी अवधि के वजन प्रबंधन हेतु, आहार और व्यायाम के साथ उपयोग के लिए मंजूरी दी गई थी।

• The **SOUL trial** was initiated in **2019**, with the key objective to demonstrate that oral semaglutide lowers the risk of **major adverse cardiovascular events** (a composite endpoint consisting of **cardiovascular death, non-fatal myocardial infarction and non-fatal stroke**) compared with placebo, both added to standard of care in patients with **type 2 diabetes** and established **Cardiovascular Disease (CVD)** and **Chronic Kidney Disease (CKD)**.

**SOUL** ट्रायल की शुरुआत 2019 में हुई थी, जिसका मुख्य उद्देश्य यह दिखाना था कि मौखिक सेमाग्लूटाइड प्रमुख हृदय संबंधी प्रतिकूल घटनाओं (जिसमें हृदय मृत्यु, गैर-घातक दिल का दौरा और गैर-घातक स्ट्रोक शामिल हैं) के जोखिम को प्लेसिबो की तुलना में कम करता है, दोनों को टाइप 2 डायबिटीज़, हृदय रोग (CVD) और पुरानी किडनी की बीमारी (CKD) वाले रोगियों में मानक देखभाल के साथ जोड़ा गया था।

• “The **SOUL trial** demonstrates statistically significant reductions in the **primary composite endpoint** of major adverse cardiovascular events (MACE), encompassing **myocardial infarction, stroke, or cardiovascular death**, in adults with **type 2 diabetes mellitus (T2DM)** and established **CVD and/or CKD**,” said **V. Mohan**, chairman, Dr. Mohan's Diabetes Specialities Centre.

डॉ. मोहन की डायबिटीज़ स्पेशियलिटी सेंटर के अध्यक्ष वी. मोहन ने कहा, “**SOUL** ट्रायल से यह सांख्यिकीय रूप से सिद्ध होता है कि प्राथमिक मिश्रित लक्ष्य यानी प्रमुख हृदय संबंधी प्रतिकूल घटनाओं (दिल का दौरा, स्ट्रोक या हृदय मृत्यु) में टाइप 2 डायबिटीज़ मरीजों में **CVD और/या CKD** के साथ महत्वपूर्ण कमी आती है।”

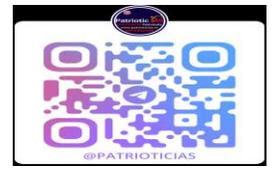
• The data reinforce oral semaglutide's role as the **first and only approved oral glucagon-like peptide-1 receptor agonist (GLP-1 RA)** to achieve a significant reduction in **cardiovascular risk** within this high-risk population.



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यह आंकड़े मौखिक सेमाग्लूटाइड की भूमिका को पहला और एकमात्र स्वीकृत मौखिक GLP-1 RA के रूप में मजबूत करते हैं, जो इस उच्च-जोखिम समूह में हृदय जोखिम में महत्वपूर्ण कमी लाने में सक्षम है।

• **A.G. Unnikrishnan**, CEO and chief of endocrinology at the **Chellaram Diabetes Institute, Pune**, said the **SOUL trial** has shown that it can reduce the risk of **major cardiovascular events**, regardless of whether participants were already using **sodium-glucose cotransporter-2 inhibitor (SGLT2i)**.

चेलाराम डायबिटीज़ इंस्टिट्यूट, पुणे के सीईओ और एंडोक्रिनोलॉजी प्रमुख ए.जी. उन्नीकृष्णन ने कहा कि **SOUL** ट्रायल से पता चला है कि यह **प्रमुख हृदय संबंधी घटनाओं** के जोखिम को कम कर सकता है, चाहे प्रतिभागी पहले से **SGLT2i** का उपयोग कर रहे हों या नहीं।

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# West Africa chimps are losing their culture, in another human legacy

In new research, scientists reported four dialects that male wild chimpanzees use in the Taï National Park to find mates. But after documenting the chimpanzees' lives for more than a generation, the scientists also reported these apes are 'forgetting' parts of the dialect thanks to human influences

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**C**ulture is what we learn from others and pass on to successive generations by practising it over and over. Scientists have found cultural traditions among humans as well as animals, the latter in the way they forage, socialise, use tools, care for themselves, and mate.

Among these traditions, the characteristic patterns of behaviour that involve communication are called dialects.

In new research published in the journal *Cell*, scientists with the Taï Chimpanzee Project in West Africa reported four dialects that male wild chimpanzees (*Pan troglodytes verus*) use in the Taï National Park to find mates to copulate with.

Unfortunately, after documenting the chimpanzees' lives for more than a generation, the scientists also reported these apes are 'forgetting' parts of the dialect thanks to human influences.

"Cultural behaviours are crucial for survival," Catherine Crockford, a scientist leading the project and researcher at the Max Planck Institute for Evolutionary Anthropology, Germany, and ISC Marc Jeannerod, France, said.

"Illegal hunting or logging may not only be killing individual chimpanzees but also destroying their cultures, which could threaten the survival of the remaining chimpanzees." Chimpanzees are also poached for use as pets or for bushmeat.

#### 'Secretly ask females for sex'

Researchers once believed culture separated humans from other animals. But in the last seven decades, research has revealed cultural practices in many animals. Even so, community-specific dialects in non-human primates such as chimpanzees, orangutans, and bonobos have been rare.

The scientists with the Taï Chimpanzee Project reported four distinct types of dialects that male West Africa chimpanzees used to find mates: heel-kick, knuckle-knock, leaf-clip, and branch-shake.

In a heel-kick, the chimpanzees lifted their feet and kicked against a hard surface to make noise. The knuckle-knock involved repeatedly, but somewhat quietly, knocking their knuckles against hard surfaces.

Likewise, in the leaf-clip, chimpanzees bite a leaf and strip it into pieces without eating it, creating a ripping sound. The branch-shake is self-explanatory.

"It is amusing to watch how young subordinate males try to secretly ask



A female chimpanzee grooms an adult male in Loango National Park, Gabon. West African chimpanzees are a subspecies found in western Africa, including Côte d'Ivoire, Liberia, Guinea-Bissau, and Ghana. AFP

females for sex without the dominant males knowing," Ms. Crockford said. "This is the main function of these more subtle gestures".

The team documented heel-kicks among the North, South, Northeast, and East chimpanzee communities; knuckle-knocking in the Northeast community; and leaf-clip and branch-shake among the North, South, and Northeast communities.

#### A dangerous demographic shift

The knuckle-knock gesture is restricted to the Northeast community. It was previously among adult males of the North community as well, but since 1999, it has suffered significant population loss.

The problem became so bad that between 2004 and 2011, the North group didn't have two adult males existing at the same time. Put another way, any adult male didn't have to compete with other adult males and thus had no use for the knuckle-knock dialect.

Researchers understand that demography plays a crucial role in shaping culture and keeping it alive across generations. A systematic data collection effort concluded in 2019 that no members of the North group had used knuckle-knocking in 20 years.

Significant changes in a population, in this case the near-complete loss of an entire demographic (adult males), can



Cultures emerge over generations. Cultural behaviours — such as the use of specialised toolkits, nut-cracking with stone hammers or digging out underground bee nests with different-sized sticks — are crucial for survival

thus have a long-lasting impact on the preservation or loss of cultural traditions. Restoring them isn't easy. For example, with the help of ecologists and the Côte d'Ivoire government, the North group has had four adult males since 2016 but the knuckle-knock gesture hasn't reemerged among them.

"While establishing absence is challenging, our observations demonstrate a shift-away from knuckle-knock gesture usage," the researchers wrote in their paper.

#### Their own language

To further understand the origins of the chimpanzees' culture, the team compared mating solicitation gestures involving the use of tools between Taï chimpanzees and Sonso chimpanzees at the Budongo Forest Reserve in Uganda. Whereas the Taï chimpanzees preferred

the knuckle-knock, the Sonso chimpanzees used the object-slap: moving the arm from the shoulder to slap an object with an open palm.

Likewise, the Sonso chimpanzees frequently used leaf-clipping to express their interest in mating but the Taï chimpanzees didn't.

Chimpanzees have genetically inherited certain gestures across subspecies but individuals have been known to express only a subset. But within a closed group, multiple individuals use the same set of gestures over time and can even differ from the gestures used in a neighbouring group.

The Budongo Forest Reserve is about 4,160 km from the habitat of the Taï chimpanzees of Côte d'Ivoire. "We can rule out that the different signals used in each community have a genetic origin. Given they live in a similar forest environment, we can also rule out environmental influences on culture," Ms. Crockford said.

"This leaves us with the most likely option: that different signals in neighbouring communities arise through social learning."

#### Bringing conservation to culture

"Cultures emerge over generations. Cultural behaviours — such as the use of specialised toolkits, nut-cracking with stone hammers or digging out underground bee nests with different-sized sticks — are crucial for survival," Ms. Crockford said.

According to her, the preservation of animal culture is a relatively new concept. The International Union for the Conservation of Nature (IUCN) recently included it among the metrics it uses to prepare its 'Red List of Endangered Species'. The message seems to be that chimpanzees should be protected as well as their cultures.

But the IUCN's job isn't done. In a November 2024 paper in *Science*, researchers reported that the deaths of a species' elders are disproportionately more harmful than the deaths of other members.

This is because the elders possess important cultural knowledge: where to find the best watering holes in particular weather, the ways to respond to different predators, caring for the young when the parents can't, and so on.

One of the authors of this study wrote then that the "loss of old individuals is not yet recognised by the IUCN as a means of listing threatened species."

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## THE GIST

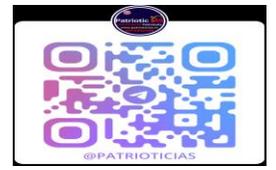
Cultural behaviours are crucial for survival. Illegal hunting or logging may not only be killing chimpanzees but also destroying their cultures, which could threaten the survival of the remaining chimpanzees

Researchers once believed culture separated humans from other animals. But research has revealed cultural practices in many animals. Even so, community-specific dialects in non-human primates such as chimpanzees, orangutans, and bonobos have been rare

A study concluded in 2019 that no members of a chimpanzee group being studied had used knuckle-knocking — a typical mating behaviour in 20 years. This was due to the near-complete loss of adult males in the community

**West Africa chimps are losing their culture, in another human legacy**

**पश्चिम अफ्रीका के चिंपांज़ी अपनी संस्कृति खो रहे हैं, यह भी इंसानों की एक और विरासत है**



In new research, scientists reported four dialects that male wild chimpanzees use in the Tai National Park to find mates.

एक नए शोध में वैज्ञानिकों ने बताया कि Tai राष्ट्रीय उद्यान में नर जंगली चिंपांजी साथी खोजने के लिए चार प्रकार की बोलियां (डायलेक्ट्स) का उपयोग करते हैं।

• But after documenting the chimpanzees' lives for **more than a generation**, the scientists also reported these apes are **'forgetting' parts of the dialect** thanks to **human influences**.

लेकिन एक पीढ़ी से अधिक समय तक चिंपांजियों के जीवन का दस्तावेज़ीकरण करने के बाद, वैज्ञानिकों ने यह भी बताया कि ये प्राणी मानव प्रभावों के कारण अपनी बोली के कुछ हिस्से 'भूल' रहे हैं।

• Culture is what we learn from others and pass on to **successive generations** by practising it over and over.

संस्कृति वह है जिसे हम दूसरों से सीखते हैं और उसे लगातार अभ्यास करके आने वाली पीढ़ियों को सौंपते हैं।

• Scientists have found **cultural traditions** among humans as well as animals, the latter in the way they forage, socialise, use tools, care for themselves, and mate.

वैज्ञानिकों ने **संस्कृतिक परंपराएं** न केवल इंसानों में, बल्कि जानवरों में भी पाई हैं—जैसे कि उनके भोजन जुटाने, सामाजिक व्यवहार, औज़ारों का उपयोग, स्वयं की देखभाल और प्रजनन के तरीकों में।

• Among these traditions, the characteristic patterns of behaviour that involve **communication** are called **dialects**.

इन परंपराओं में **संचार से जुड़ी विशिष्ट व्यवहार की विधियों** को **बोलियां (dialects)** कहा जाता है।

• In new research published in the journal **Cell**, scientists with the **Tai Chimpanzee Project** in **West Africa** reported four dialects that male wild chimpanzees (**Pan troglodytes verus**) use in the **Tai National Park** to find mates to copulate with.

**Cell** नामक जर्नल में प्रकाशित नए शोध में, **पश्चिम अफ्रीका** के **Tai Chimpanzee Project** के वैज्ञानिकों ने बताया कि नर जंगली चिंपांजी (**Pan troglodytes verus**) साथी खोजने के लिए **Tai राष्ट्रीय उद्यान** में **चार प्रकार की बोलियों** का उपयोग करते हैं।

• Unfortunately, after documenting the chimpanzees' lives for **more than a generation**, the scientists also reported these apes are **'forgetting' parts of the dialect** thanks to **human influences**.

दुर्भाग्यवश, एक पीढ़ी से अधिक समय तक चिंपांजियों के जीवन का अध्ययन करने के बाद, वैज्ञानिकों ने यह भी बताया कि मानव प्रभावों के कारण ये प्राणी **अपनी बोलियों के कुछ हिस्सों को 'भूल' रहे हैं**।

• **"Cultural behaviours** are crucial for **survival**," said **Catherine Crockford**, a scientist leading the project and researcher at the **Max Planck Institute for Evolutionary Anthropology**, **Germany**, and **ISC Marc Jeannerod**, **France**.

"संस्कृतिक व्यवहार जीवित रहने के लिए अत्यंत आवश्यक हैं," ऐसा कहना है कैथरीन क्रॉकफोर्ड का, जो इस



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परियोजना की प्रमुख वैज्ञानिक हैं और मैक्स प्लांक इंस्टीट्यूट फॉर एवोल्यूशनरी एंथ्रोपोलॉजी, जर्मनी और ISC Marc Jeannerod, फ्रांस में शोधकर्ता हैं।

• “**Illegal hunting or logging** may not only be killing individual chimpanzees but also destroying their **cultures**, which could threaten the **survival** of the remaining chimpanzees.”

“अवैध शिकार या वनों की कटाई न केवल व्यक्तिगत चिंपांज़ियों को मार रही है बल्कि उनकी **संस्कृति** को भी नष्ट कर रही है, जिससे शेष बचे चिंपांज़ियों के **जीवन पर खतरा** उत्पन्न हो सकता है।”

• Chimpanzees are also **poached** for use as **pets** or for **bushmeat**.

चिंपांज़ियों का **शिकार** उन्हें **पालतू जानवर** या **जंगल का मांस** बनाने के लिए भी किया जाता है।

‘**Secretly ask females for sex**’

‘**गुप्त रूप से मादाओं से यौन संपर्क की याचना करना**’

• Researchers once believed **culture** separated humans from other animals.

शोधकर्ताओं का पहले मानना था कि **संस्कृति** इंसानों को अन्य जानवरों से अलग करती है।

• But in the last **seven decades**, research has revealed **cultural practices** in many animals.

लेकिन पिछले **सात दशकों** में शोध ने कई जानवरों में **संस्कृतिक व्यवहार** को उजागर किया है।

• Even so, **community-specific dialects** in **non-human primates** such as chimpanzees, orangutans, and bonobos have been **rare**.

इसके बावजूद, चिंपांज़ी, ओरंगुटान, और बोनोबो जैसे **गैर-मानव प्राइमेट्स** में **समुदाय-विशिष्ट बोलियां** अब भी **दुर्लभ** पाई गई हैं।

• The scientists with the **Tai Chimpanzee Project** reported **four distinct types of dialects** that male West Africa chimpanzees used to find mates: **heel-kick**, **knuckle-knock**, **leaf-clip**, and **branch-shake**.

**Tai चिंपांज़ी परियोजना** के वैज्ञानिकों ने बताया कि पश्चिम अफ्रीका के नर चिंपांज़ी साथी खोजने के लिए **चार विशिष्ट प्रकार की बोलियों** का उपयोग करते हैं: **हील-किक**, **नकल-नॉक**, **लीफ-क्लिप**, और **ब्रांच-शेक**।

• In a **heel-kick**, the chimpanzees lifted their feet and kicked against a hard surface to make noise.

**हील-किक** में, चिंपांज़ी अपने पैर उठाकर किसी कठोर सतह पर मारते हैं जिससे आवाज़ उत्पन्न होती है।

• The **knuckle-knock** involved repeatedly, but somewhat quietly, knocking their knuckles against hard surfaces.

**नकल-नॉक** में वे अपनी उंगलियों के जोड़ (knuckles) को किसी कठोर सतह पर बार-बार धीरे-धीरे मारते हैं।

• In the **leaf-clip**, chimpanzees bite a leaf and strip it into pieces without eating it, creating a **ripping sound**.

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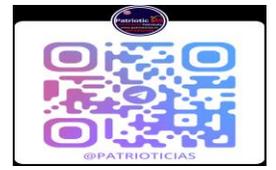
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लीफ-क्लिप में चिंपांजी पत्ते को काटते हैं और उसे बिना खाए टुकड़ों में फाड़ देते हैं, जिससे चीरने जैसी आवाज़ आती है।

• The **branch-shake** is self-explanatory.

ब्रांच-शेक का अर्थ है डालियों को जोर से हिलाना, जो खुद स्पष्ट है।

• “It is amusing to watch how young **subordinate males** try to **secretly ask females for sex** without the **dominant males** knowing,” Ms. Crockford said.

क्रॉकफोर्ड ने कहा, “यह देखना दिलचस्प होता है कि कैसे युवा **अधीनस्थ नर प्रमुख नर** को बिना बताए मादाओं से गुप्त रूप से यौन संपर्क की याचना करने की कोशिश करते हैं।”

• “This is the **main function** of these more **subtle gestures**.”

“ये सूक्ष्म संकेतों का मुख्य उद्देश्य यही होता है।”

• The team documented **heel-kicks** among the **North, South, Northeast, and East** chimpanzee communities.

टीम ने हील-किक को उत्तर, दक्षिण, उत्तर-पूर्व और पूर्व के चिंपांजी समुदायों में दर्ज किया।

• **Knuckle-knocking** was found in the **Northeast** community.

नकल-नाँक को उत्तर-पूर्वी समुदाय में पाया गया।

• **Leaf-clip** and **branch-shake** were documented among the **North, South, and Northeast** communities.

लीफ-क्लिप और ब्रांच-शेक को उत्तर, दक्षिण और उत्तर-पूर्वी समुदायों में दर्ज किया गया।

## Their own language

### उनकी अपनी भाषा

- To further understand the origins of the chimpanzees' culture, the team compared mating solicitation gestures involving the use of tools between Tai chimpanzees and Sonso chimpanzees at the **Budongo Forest Reserve in Uganda**.

चिंपांजी की संस्कृति की उत्पत्ति को और बेहतर समझने के लिए, टीम ने युगांडा के बुडोंगो फॉरेस्ट रिज़र्व में ताई चिंपांजी और सोंसो चिंपांजी के बीच प्रजनन संकेतों में उपकरणों के उपयोग की तुलना की।

- Whereas the Tai chimpanzees preferred the **knuckle-knock**, the Sonso chimpanzees used the **object-slap**: moving the arm from the shoulder to slap an object with an open palm.

जहाँ ताई चिंपांजी नकल-नाँक को पसंद करते थे, वहीं सोंसो चिंपांजी ऑब्जेक्ट-स्लेप का उपयोग करते थे: कंधे से हाथ को हिलाकर खुली हथेली से किसी वस्तु को मारना।

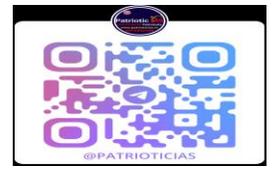
- Likewise, the Sonso chimpanzees frequently used **leaf-clipping** to express their interest in mating but the Tai chimpanzees didn't.

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इसी तरह, सोंसो चिंपांजी लीफ-क्लिपिंग का अक्सर प्रयोग करते थे ताकि वे प्रजनन में रुचि दिखा सकें, लेकिन ताई चिंपांजी ऐसा नहीं करते थे।

- Chimpanzees have genetically inherited certain gestures across subspecies but individuals have been known to express only a **subset**.

चिंपांजियों ने उप-प्रजातियों के बीच कुछ इशारों को **आनुवंशिक रूप से विरासत** में पाया है, लेकिन प्रत्येक चिंपांजी आमतौर पर केवल एक **छोटे समूह** के इशारे ही दिखाता है।

- But within a **closed group**, multiple individuals use the same set of gestures over time and can even differ from the gestures used in a neighbouring group.

लेकिन एक **बंद समूह** के भीतर, कई चिंपांजी समय के साथ एक जैसे इशारे करते हैं और पड़ोसी समूहों के इशारों से अलग हो सकते हैं।

- The **Budongo Forest Reserve** is about **4,160 km** from the habitat of the Tai chimpanzees of **Côte d'Ivoire**.

**बुडोंगो फॉरेस्ट रिज़र्व** ताई चिंपांजियों के **कोट डीवोआर** स्थित आवास से लगभग **4,160 किमी** दूर है।

- “We can rule out that the different signals used in each community have a **genetic origin**.

“हम यह नकार सकते हैं कि प्रत्येक समुदाय द्वारा उपयोग किए गए अलग-अलग संकेतों का **आनुवंशिक स्रोत** है।”

- Given they live in a similar forest environment, we can also rule out **environmental influences** on culture,” Ms. Crockford said.

क्योंकि वे एक समान जंगल वातावरण में रहते हैं, हम **पर्यावरणीय प्रभावों** को भी संस्कृति पर प्रभावी नहीं मान सकते,” मिस क्रॉकफोर्ड ने कहा।

- “This leaves us with the most likely option: that different signals in neighbouring communities arise through **social learning**.”

“इससे सबसे संभावित विकल्प यही बचता है: कि पड़ोसी समुदायों में अलग-अलग संकेत **सामाजिक अधिग्रहण** के माध्यम से उत्पन्न होते हैं।”

- **Bringing conservation to culture**

**संस्कृति को संरक्षण से जोड़ना**

- “**Cultures emerge over generations**.

“**संस्कृतियाँ पीढ़ियों में विकसित होती हैं।**”

- Cultural behaviours — such as the use of specialised toolkits, **nut-cracking with stone hammers** or **digging out underground bee nests** with different-sized sticks — are crucial for **survival**,” Ms. Crockford said.

संस्कृतिक व्यवहार — जैसे विशेष उपकरणों का उपयोग, **पत्थर के हथौड़ों से नट तोड़ना**, या **अलग-अलग आकार की लकड़ियों से भूमिगत मधुमक्खी के घोंसले निकालना** — जीवित रहने के लिए महत्वपूर्ण हैं,” मिस क्रॉकफोर्ड ने कहा।

- According to her, the **preservation of animal culture** is a **relatively new concept**.

उनके अनुसार, **जानवरों की संस्कृति का संरक्षण** एक **तुलनात्मक रूप से नया विचार** है।

- The **International Union for the Conservation of Nature (IUCN)** recently included it among the metrics it uses to prepare its ‘**Red List of Endangered Species**’.



हाल ही में प्राकृतिक संरक्षण के लिए अंतर्राष्ट्रीय संघ (IUCN) ने इसे अपनी 'लुप्तप्राय प्रजातियों की रेड लिस्ट' तैयार करने के मापदंडों में शामिल किया है।

- The message seems to be that chimpanzees should be protected as well as their **cultures**.

संदेश यह प्रतीत होता है कि चिंपांज़ियों के साथ-साथ उनकी **संस्कृति** को भी संरक्षित किया जाना चाहिए।

- But the IUCN's job isn't done. In a **November 2024** paper in **Science**, researchers reported that the **deaths of a species' elders** are disproportionately more harmful than the deaths of other members.

लेकिन IUCN का कार्य समाप्त नहीं हुआ है। **नवंबर 2024** में साइंस पत्रिका में एक अध्ययन में शोधकर्ताओं ने बताया कि किसी प्रजाति के **बुजुर्ग सदस्यों की मृत्यु** अन्य सदस्यों की तुलना में असमान रूप से अधिक हानिकारक होती है।

- This is because the **elders possess important cultural knowledge**: where to find the best watering holes in particular weather, the ways to respond to different predators, caring for the young when the parents can't, and so on.

ऐसा इसलिए है क्योंकि **बुजुर्गों के पास महत्वपूर्ण सांस्कृतिक ज्ञान** होता है: जैसे खास मौसम में सबसे अच्छे जल स्रोत कहाँ होते हैं, विभिन्न शिकारी से कैसे निपटना है, जब माता-पिता सक्षम न हों तो बच्चों की देखभाल कैसे करनी है, आदि।

- One of the authors of this study wrote then that the **"loss of old individuals is not yet recognised by the IUCN as a means of listing threatened species."**

इस अध्ययन के एक लेखक ने तब लिखा कि **"बुजुर्ग सदस्यों की हानि"** को अभी तक IUCN द्वारा **संकटग्रस्त प्रजातियों की सूचीबद्धता** का मानदंड नहीं माना गया है।

## Why were students protesting over **Kancha Gachibowli**?

What is the ownership status of the 400-acre land parcel known as Kancha Gachibowli? Why did the government decide to auction the land? Why were environmentalists worried?

GS Paper III:  
Environment

### The story so far:

**T**he students of the University of Hyderabad at Gachibowli have been protesting ever since the news of the auction of a 400-acre land parcel known as Kancha Gachibowli within campus premises broke. The battle has now reached the Supreme Court, which has acknowledged the destruction of greenery and the existence of wildlife in the area, before taking it up *suo motu*. Three PILs have already been filed in the Telangana High Court against the auction.

### Why were there protests?

Students state that the land is part of the university, a claim which has been vehemently denied by the government.

The land was part of the 2,324 acres granted to the University of Hyderabad at

the time of its establishment in 1974, as part of the six-point formula proposed by the then Congress government to assuage regional sentiments stoked by the Telangana movement of 1969. However, the land allocation was not formalised through title transfer. Subsequently, large tracts of land, unused by the university, were taken up by the government for various purposes including establishing the Indian Institute of Information Technology, the Tata Institute of Fundamental Research, and the Sports Authority of Andhra Pradesh to name a few. By 2010, more than 800 acres of land was taken away in 22 such instances.

### What do documents say?

The 400 acres of land which is now under conflict was part of such diversions in 2004, under the then Telugu Desam Party (TDP) government. An MoU was signed with the University of Hyderabad, for the

transfer of 534 acres, in lieu of 396 acres allocated at another location. The land formed part of 850 acres allocated to IMG Academies Bharata for developing sports facilities. A sale deed was subsequently signed, just before Legislative Assembly elections in which the TDP was routed by the Congress. After winning the elections, the then Chief Minister cancelled the land transfer, leading to a long drawn out legal battle. The top court dismissed the Special Leave Petition, allowing the present government under Chief Minister A. Revanth Reddy to take up the land.

### What are environmentalists saying?

Undisturbed for more than 20 years, the land has become home to a rich variety of native flora and fauna. Several migratory birds also visit the area. A recent compendium of biodiversity collated from the campus mentions 233 bird species, which is higher than the avian numbers in

the KBR National Park and the Mrugavani National Park. It also cited *Murricea hyderabadensis*, a unique spider, which is endemic to the Kancha Gachibowli forest, and found nowhere else. The document also lists at least three reptiles, and 27 bird species which are mentioned in Schedule-I of the Wildlife Protection Act, 1972, indicating their vulnerability and need for highest protection, besides 72 species of tree diversity.

### Why did the govt. decide to auction?

The Congress government in the joint State of Andhra Pradesh under the leadership of Y. S. Rajashekhar Reddy was the first to begin the monetisation of government lands through open auctions, which was decried and denounced by many concerned citizens and political parties. However, such auctions have become the unstated State policy of all subsequent governments in Telangana, irrespective of the party in power.

The Congress party, which won the 2023 assembly elections inherited a State debt of nearly ₹4 lakh crore, which is set to cross ₹5 lakh crore by the end of FY 2025-26. Mr. Reddy's recent admission that he had no funds for capital expenditure reflects the true state of State coffers. The judgment about the ownership Kancha Gachibowli came just in time as a respite for the government, which decided to garner funds for welfare measures through auctioning the land.



## Protests over Kancha Gachibowli

### कांचा गाचीबौली को लेकर विरोध प्रदर्शन

The students of the University of Hyderabad at Gachibowli have been protesting ever since the news of the auction of a 400-acre land parcel known as Kancha Gachibowli within campus premises broke.

गाचीबौली स्थित हैदराबाद विश्वविद्यालय के छात्रों ने तब से विरोध प्रदर्शन शुरू कर दिया जब कैम्पस परिसर में स्थित 400 एकड़ भूमि, जिसे कांचा गाचीबौली कहा जाता है, की नीलामी की खबर सामने आई।

- The battle has now reached the **Supreme Court**, which has acknowledged the **destruction of greenery** and the **existence of wildlife** in the area, before taking it up **suo motu**.  
यह मामला अब **सुप्रीम कोर्ट** तक पहुंच चुका है, जिसने **हरियाली की तबाही** और इस क्षेत्र में **वन्यजीवों की मौजूदगी** को स्वीकार किया और फिर इसे **स्वतः संज्ञान** में लिया।
- **Three PILs** have already been filed in the **Telangana High Court** against the auction. नीलामी के खिलाफ **तेलंगाना हाई कोर्ट** में पहले ही **तीन जनहित याचिकाएं** दायर की जा चुकी हैं।

### Why were there protests?

#### विरोध क्यों हुआ?

- Students state that the land is part of the university, a claim which has been **vehemently denied by the government**.  
छात्रों का कहना है कि यह भूमि विश्वविद्यालय का हिस्सा है, लेकिन यह दावा **सरकार द्वारा जोरदार ढंग से खारिज** कर दिया गया।
- The land was part of the **2,324 acres** granted to the University of Hyderabad at the time of its establishment in **1974**, as part of the **six-point formula** proposed by the then Congress government to assuage regional sentiments stoked by the **Telangana movement of 1969**.  
यह भूमि **1974** में हैदराबाद विश्वविद्यालय की स्थापना के समय दिए गए **2,324 एकड़** का हिस्सा थी, जिसे उस समय की कांग्रेस सरकार द्वारा **1969 के तेलंगाना आंदोलन** से उपजे क्षेत्रीय भावनाओं को शांत करने के लिए **सिक्स-पॉइंट फॉर्मूला** के तहत आवंटित किया गया था।
- However, the land allocation was **not formalised through title transfer**.  
हालांकि, भूमि आवंटन को **कागज़ी रूप में स्थानांतरित नहीं किया गया था**।
- Subsequently, large tracts of land, unused by the university, were taken up by the government for various purposes including establishing the **Indian Institute of Information Technology**, the **Tata Institute of Fundamental Research**, and the **Sports Authority of Andhra Pradesh** to name a few.



बाद में, विश्वविद्यालय द्वारा उपयोग न की गई कई बड़ी जमीनों को सरकार ने भारतीय सूचना प्रौद्योगिकी संस्थान, टाटा फंडामेंटल रिसर्च संस्थान, और आंध्र प्रदेश खेल प्राधिकरण जैसी विभिन्न परियोजनाओं के लिए ले लिया।

- By 2010, more than 800 acres of land was taken away in 22 such instances. 2010 तक, इस तरह की 22 घटनाओं में 800 एकड़ से अधिक भूमि ले ली गई थी।

## What do documents say?

### दस्तावेज़ क्या कहते हैं?

- The 400 acres of land which is now under conflict was part of such diversions in 2004, under the then Telugu Desam Party (TDP) government. अब विवाद में आई 400 एकड़ भूमि को 2004 में तत्कालीन तेलुगु देशम पार्टी (TDP) सरकार द्वारा स्थानांतरित भूमि में शामिल किया गया था।
- An MoU was signed with the University of Hyderabad, for the transfer of 534 acres, in lieu of 396 acres allocated at another location. हैदराबाद विश्वविद्यालय के साथ एक समझौता ज्ञापन (MoU) पर हस्ताक्षर किए गए थे, जिसमें 534 एकड़ भूमि को स्थानांतरित किया गया, बदले में एक अन्य स्थान पर 396 एकड़ भूमि दी गई थी।
- The land formed part of 850 acres allocated to IMG Academies Bharata for developing sports facilities. यह भूमि IMG अकादमी भारत को खेल सुविधाएं विकसित करने के लिए आवंटित की गई 850 एकड़ भूमि का हिस्सा थी।
- A sale deed was subsequently signed, just before Legislative Assembly elections, in which the TDP was routed by the Congress. बाद में, एक बिक्री विलेख पर हस्ताक्षर किए गए, ठीक विधानसभा चुनावों से पहले, जिसमें TDP को हार का सामना करना पड़ा और कांग्रेस ने जीत हासिल की।
- After winning the elections, the then Chief Minister cancelled the land transfer, leading to a long drawn out legal battle. चुनाव जीतने के बाद, तत्कालीन मुख्यमंत्री ने भूमि हस्तांतरण को रद्द कर दिया, जिससे एक लंबा कानूनी विवाद शुरू हो गया।
- The top court dismissed the Special Leave Petition, allowing the present government under Chief Minister A. Revanth Reddy to take up the land. शीर्ष अदालत ने विशेष अनुमति याचिका खारिज कर दी, जिससे मुख्यमंत्री ए. रेवंत रेड्डी के नेतृत्व वाली वर्तमान सरकार को इस भूमि पर अधिकार मिल गया।

## What are environmentalists saying?

### पर्यावरणविद् क्या कह रहे हैं?



- Undisturbed for more than **20 years**, the land has become home to a rich variety of **native flora and fauna**.  
**20 वर्षों से अधिक** समय तक बिना किसी हस्तक्षेप के रहने के कारण यह भूमि **स्थानीय वनस्पतियों और जीवों** का घर बन चुकी है।
- Several **migratory birds** also visit the area.  
कई **प्रवासी पक्षी** भी इस क्षेत्र में आते हैं।
- A recent **compendium of biodiversity** collated from the campus mentions **233 bird species**, which is **higher than** the avian numbers in the **KBR National Park** and the **Mrugavani National Park**.  
हाल ही में परिसर से संकलित **जैव विविधता की रिपोर्ट** में **233 पक्षी प्रजातियों** का जिक्र है, जो **केबीआर नेशनल पार्क** और **मृगवनी नेशनल पार्क** की पक्षियों की संख्या से अधिक है।
- It also cited **Murricia hyderabadensis**, a unique spider, which is **endemic to the Kancha Gachibowli forest**, and found **nowhere else**.  
इसमें **मुरिसिया हैदराबादेसिस** नामक एक अनोखी मकड़ी का भी उल्लेख है, जो **केवल कांचा गाचीबौली वन** में पाई जाती है और **दुनिया में कहीं और नहीं मिलती**।
- The document also lists at least **three reptiles**, and **27 bird species** which are mentioned in **Schedule-I of the Wildlife Protection Act, 1972**, indicating their **vulnerability** and need for **highest protection**, besides **72 species of tree diversity**.  
दस्तावेज़ में कम से कम **तीन सरीसृप**, और **27 पक्षी प्रजातियों** का भी उल्लेख है, जो **वन्यजीव संरक्षण अधिनियम, 1972 की अनुसूची-I** में सूचीबद्ध हैं, जो उनकी **संवेदनशीलता** और **सर्वोच्च संरक्षण** की आवश्यकता को दर्शाते हैं, साथ ही इसमें **72 प्रकार के वृक्षों की विविधता** भी दर्ज है।

## Why did the govt. decide to auction?

### सरकार ने नीलामी का निर्णय क्यों लिया?

- The **Congress government** in the **joint State of Andhra Pradesh** under the leadership of **Y. S. Rajashekhar Reddy** was the first to begin the **monetisation of government lands through open auctions**, which was **decried and denounced** by many concerned citizens and political parties.  
**वाई. एस. राजशेखर रेड्डी** के नेतृत्व में **संयुक्त आंध्र प्रदेश** की कांग्रेस सरकार ने पहली बार **सरकारी भूमि की नीलामी के ज़रिए मौद्रिकीकरण** की शुरुआत की थी, जिसे कई चिंतित नागरिकों और राजनीतिक दलों द्वारा **निंदा और आलोचना** की गई।
- However, such **auctions have become the unstated State policy** of all subsequent **governments in Telangana**, irrespective of the party in power.  
हालांकि, इस तरह की **नीलामी अब तेलंगाना की सभी बाद की सरकारों की अनकही राज्य नीति** बन गई है, चाहे सत्ता में कोई भी दल रहा हो।
- The **Congress party**, which won the **2023 assembly elections**, inherited a **State debt of nearly ₹4 lakh crore**, which is set to cross **₹5 lakh crore by the end of FY 2025-26**.



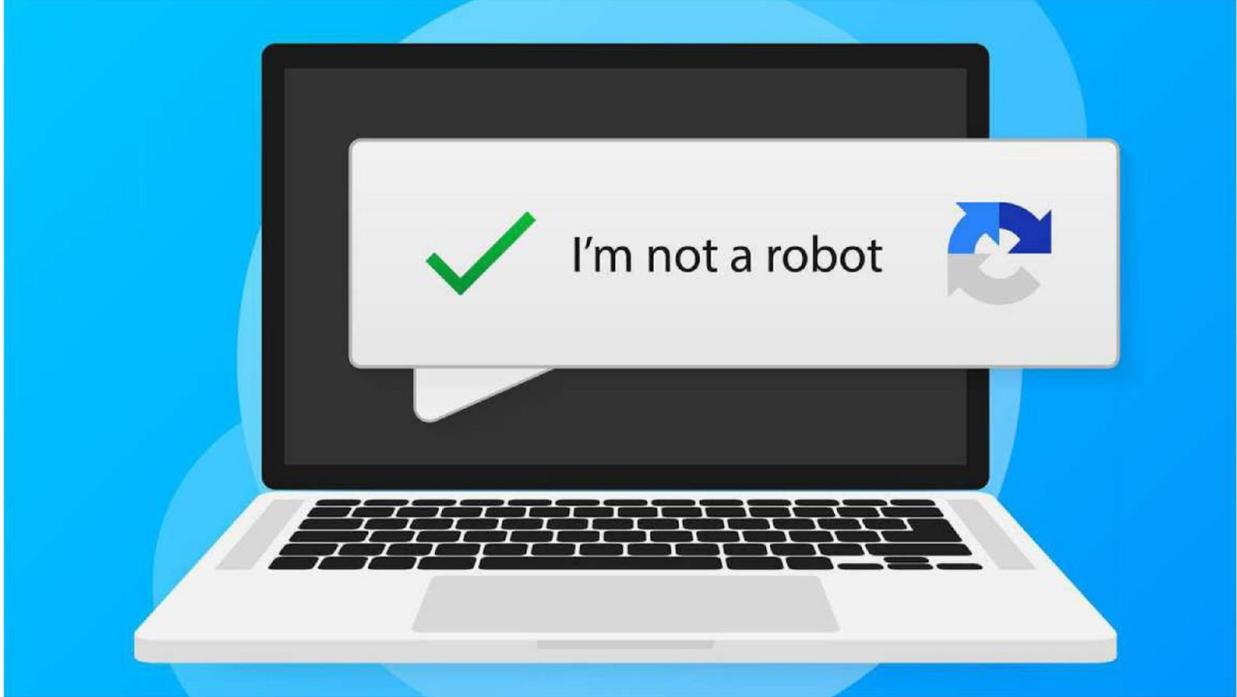
कांग्रेस पार्टी, जिसने 2023 के विधानसभा चुनाव जीते, उसे लगभग ₹4 लाख करोड़ के राज्य ऋण की विरासत मिली, जो वित्त वर्ष 2025-26 के अंत तक ₹5 लाख करोड़ पार कर जाएगा।

- Mr. Reddy's recent admission that he had **no funds for capital expenditure** reflects the true state of **State coffers**.

श्री रेड्डी का हालिया बयान कि उनके पास पूंजीगत व्यय के लिए कोई धन नहीं है, राज्य कोष की वास्तविक स्थिति को दर्शाता है।

- The judgment about the **ownership of Kancha Gachibowli** came just in time as a **respite for the government**, which decided to garner **funds for welfare measures** through auctioning the land.

कांचा गाचीबौली के स्वामित्व पर आया फैसला सरकार के लिए सहारा बना, जिसने इस भूमि को नीलाम करके कल्याणकारी योजनाओं के लिए धन जुटाने का निर्णय लिया।



ISTOCKPHOTO



# CAPTCHA: a digital border between humans and bots

CAPTCHA has changed the way websites keep user accounts safe and their data protected. From simple text-based challenges to the advanced reCAPTCHA systems we use today, CAPTCHA has made a big difference in online security

GS Paper III: S&T

John Xavier

In the ever-changing world of Internet technology, keeping users safe and verifying their identities is important. One of the most important security systems for this is CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). It's like a puzzle that is easy for us to solve but hard for machines.

CAPTCHA was introduced in the early 2000s when the internet was flooded with automated bots. These bots made fake accounts, spammed websites, and stole data. Computer scientists Luis von Ahn, Manuel Blum, Nicholas J. Hopper, and John Langford wanted to create a system that could tell humans from machines, even as bots got smarter and more advanced.

In 2003, von Ahn and his team filed the first patent for CAPTCHA. Back then, users had to solve distorted text or characters that bots struggled to understand. These challenges often involved recognising letters, numbers, or symbols that were deliberately messed up so that machines couldn't parse them but humans could.

CAPTCHA helps keep websites safe from automated attacks and makes online services more user-friendly. The challenge was simple, but its impact was huge. It stopped bots from getting into users' sensitive data.

**How does CAPTCHA work?**

CAPTCHA is a clever way to tell if you're a real person or a robot. It's like a brainteaser that only humans can solve.

Imagine you're trying to figure out what's written in a distorted picture. It's tricky for computers, but it's easy for us. Over time, CAPTCHA has gotten smarter and started to include other challenges to verify humans. Now, you might have to pick an image with a specific object in it, like a car or a traffic light. These challenges are even harder for computers/bots to solve.

CAPTCHA is based on an idea called the Turing test. This was proposed by British mathematician Alan Turing back in the 1950s. The idea was to create a test that could tell if a machine could act like a human. CAPTCHA does just that by making sure that tasks are easy for humans but hard for computers.

**How has CAPTCHA changed over time?**

At first, CAPTCHA mostly used distorted text to check if a user is a real person. But as computers got better and bots became more advanced, CAPTCHA had to adapt. Now, it has a variety of different challenges to keep us safe.

In 2009, a new way to check if you're a real person called reCAPTCHA came along. It used words from scanned books to verify users. This was a new idea as it not only stopped bots from taking over, but it also helped digitise printed texts. When you solved a reCAPTCHA challenge, you were actually helping to digitise books by typing out words that the computer couldn't recognise. This idea showed how users could come together to help improve digitisation of the world's books.

As CAPTCHA got better, more

advanced versions came out. In 2014, Google introduced 'Invisible reCAPTCHA,' which used users' mouse movements to tell if they were human. It was designed to be less annoying while still stopping bot attacks. Today, CAPTCHA is still very important for keeping the internet safe, but it's part of a bigger set of security tools.

**How does CAPTCHA help keep the internet safe?**

CAPTCHA is everywhere on the internet, used in many different places. Businesses and organisations use CAPTCHA to protect themselves from bots. Business websites use CAPTCHA in contact forms, comment sections, and registration pages to stop bots from spamming. This ensures that only real people can submit forms or leave comments. Many financial and e-commerce websites use this verification technique as an extra layer of security when users sign up for an account, log in, or make a purchase. It helps stop automated bots from stealing credit cards or their personal data.

Another way to think of CAPTCHA is like a secret code that helps keep a user's accounts safe. It's used when they want to recover their accounts, making sure only real people can take control, not bots. It's also used in online surveys and polls, where bots can sometimes try to trick websites. CAPTCHA helps make sure the results are from real people, not bots.

However, even though CAPTCHA is great, it's not perfect.

**What are its limitations?**

CAPTCHA is everywhere, but it has some

downsides. As bots get smarter, they can sometimes trick CAPTCHA. And for people with disabilities, like those who are blind, CAPTCHA can be a real challenge. Even with audio CAPTCHA, it can be hard for people with hearing problems.

While CAPTCHA is great at stopping bots, it does add an extra step to our interactions with websites. This extra step can be annoying, especially on mobile devices, where completing CAPTCHA can be a pain and take a long time. Some CAPTCHA tests can also be really tough, and make people frustrated. If the characters are hard to see or the instructions are unclear, it can be hard for people to finish the task. This can scare away people who just want to use the website.

Moreover, as bots get better, they can sometimes bypass even the best CAPTCHA systems. Machine learning algorithms are getting better at solving complex CAPTCHA, and many websites are using even more complicated verification methods to stay ahead.

**What lies ahead?**

CAPTCHA has changed the way websites keep user accounts safe and their data protected. From simple text-based challenges to the advanced reCAPTCHA systems we use today, CAPTCHA has made a big difference in online security. But as bots keep getting smarter and people have different expectations, CAPTCHA needs to figure out how to be more accessible and easier to use for humans, and effective to stay important in the world of digital security.

## CAPTCHA: a digital border between humans and bots

### CAPTCHA: इंसानों और बॉट्स के बीच एक डिजिटल सीमा

CAPTCHA has changed the way websites keep user accounts safe and their data protected.

CAPTCHA ने वेबसाइटों के उपयोगकर्ता खातों को सुरक्षित रखने और उनके डेटा की सुरक्षा के तरीके को बदल दिया है।

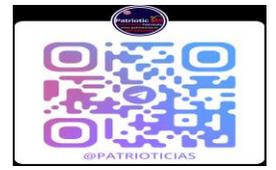
- From simple text-based challenges to the advanced reCAPTCHA systems we use today, CAPTCHA has made a big difference in online security.



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सरल टेक्स्ट-आधारित चुनौतियों से लेकर आज के उन्नत reCAPTCHA सिस्टम तक, CAPTCHA ने ऑनलाइन सुरक्षा में बड़ा बदलाव किया है।

## Introduction and Importance of CAPTCHA

### CAPTCHA का परिचय और महत्व

- In the ever-changing world of Internet technology, keeping users safe and verifying their identities is important.  
इंटरनेट तकनीक की लगातार बदलती दुनिया में उपयोगकर्ताओं को सुरक्षित रखना और उनकी पहचान की पुष्टि करना महत्वपूर्ण है।
- One of the most important security systems for this is CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart).  
इसमें सबसे महत्वपूर्ण सुरक्षा प्रणालियों में से एक है CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart)।
- It's like a puzzle that is easy for us to solve but hard for machines.  
यह एक ऐसी पहेली की तरह है जिसे इंसान आसानी से सुलझा सकता है लेकिन मशीनों के लिए यह कठिन होती है।
- CAPTCHA was introduced in the **early 2000s** when the internet was flooded with **automated bots**.  
CAPTCHA को **2000 के शुरुआती वर्षों** में पेश किया गया था जब इंटरनेट पर **ऑटोमेटेड बॉट्स** की बाढ़ थी।
- These bots made **fake accounts**, spammed websites, and stole data.  
ये बॉट्स **फर्जी अकाउंट** बनाते थे, वेबसाइटों पर स्पैम करते थे और डेटा चुराते थे।
- Computer scientists **Luis von Ahn, Manuel Blum, Nicholas J. Hopper, and John Langford** created a system to tell humans from machines.  
कंप्यूटर वैज्ञानिक **Luis von Ahn, Manuel Blum, Nicholas J. Hopper और John Langford** ने इंसानों और मशीनों में फर्क करने वाला सिस्टम बनाया।
- In **2003**, von Ahn and his team filed the **first patent for CAPTCHA**.  
**2003** में, von Ahn और उनकी टीम ने CAPTCHA के लिए **पहला पेटेंट** फाइल किया।
- Back then, users had to solve **distorted text or characters** that bots struggled to understand.  
तब उपयोगकर्ताओं को **विकृत टेक्स्ट या कैरेक्टर्स** हल करने होते थे जिन्हें बॉट्स समझ नहीं पाते थे।
- These challenges involved recognising letters, numbers, or symbols that machines couldn't parse.  
इन चुनौतियों में अक्षरों, संख्याओं या चिन्हों को पहचानना शामिल था जिन्हें मशीनें नहीं समझ पाती थीं।
- CAPTCHA helps keep websites safe from **automated attacks** and makes online services more user-friendly.



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CAPTCHA वेबसाइटों को स्वचालित हमलों से सुरक्षित रखने में मदद करता है और ऑनलाइन सेवाओं को उपयोगकर्ता-अनुकूल बनाता है।

## How does CAPTCHA work?

### CAPTCHA कैसे काम करता है?

- CAPTCHA is a clever way to tell if you're a real person or a robot.  
CAPTCHA यह जानने का एक चतुर तरीका है कि आप असली इंसान हैं या रोबोट।
- It's like a brainteaser that only humans can solve.  
यह एक पहेली की तरह है जिसे केवल इंसान ही हल कर सकते हैं।
- Imagine you're trying to figure out what's written in a **distorted picture** – it's tricky for computers, but easy for us.  
सोचिए आप विकृत चित्र में लिखा हुआ पहचानने की कोशिश कर रहे हैं – यह कंप्यूटरों के लिए मुश्किल होता है, लेकिन हमारे लिए आसान।
- CAPTCHA now includes image-based challenges, like selecting all images with a **car** or **traffic light**.  
CAPTCHA अब कार या ट्रैफिक लाइट वाली छवियों को चुनने जैसी छवि-आधारित चुनौतियाँ भी शामिल करता है।
- CAPTCHA is based on the idea called the **Turing test**, proposed by **Alan Turing** in the **1950s**.  
CAPTCHA Turing टेस्ट पर आधारित है, जिसे 1950 के दशक में Alan Turing ने प्रस्तावित किया था।
- It ensures tasks are easy for humans but hard for computers.  
यह सुनिश्चित करता है कि कार्य इंसानों के लिए आसान हों लेकिन कंप्यूटरों के लिए कठिन।

## How has CAPTCHA changed over time?

### समय के साथ CAPTCHA कैसे बदला है?

- At first, CAPTCHA mostly used **distorted text** to verify if the user is human.  
शुरू में CAPTCHA ने उपयोगकर्ता के इंसान होने की पुष्टि के लिए विकृत टेक्स्ट का उपयोग किया।
- As **bots** became smarter, CAPTCHA had to evolve.  
जैसे-जैसे बॉट्स होशियार हुए, CAPTCHA को भी बदलना पड़ा।
- In **2009**, a new system called **reCAPTCHA** was introduced that used words from **scanned books**.  
2009 में एक नया सिस्टम reCAPTCHA आया, जो स्कैनड किताबों से शब्दों का उपयोग करता था।
- Solving a reCAPTCHA challenge helped digitise books by typing out words the computer couldn't recognise.



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reCAPTCHA चुनौती हल करने से किताबों का डिजिटलीकरण होता था क्योंकि आप ऐसे शब्द टाइप करते थे जिन्हें कंप्यूटर पहचान नहीं पाता था।

- In **2014**, Google introduced **Invisible reCAPTCHA**, using **mouse movements** to detect human behavior.  
2014 में Google ने **Invisible reCAPTCHA** शुरू किया, जो **माउस मूवमेंट्स** से इंसानी व्यवहार को पहचानता है।
- Today, CAPTCHA is part of a bigger set of **security tools**.  
आज CAPTCHA एक बड़े **सुरक्षा उपकरणों** के सेट का हिस्सा है।

## How does CAPTCHA help keep the internet safe?

### CAPTCHA इंटरनेट को सुरक्षित रखने में कैसे मदद करता है?

- CAPTCHA is used across many websites to protect against **bots**.  
CAPTCHA का उपयोग कई वेबसाइटों पर **बॉट्स** से सुरक्षा के लिए किया जाता है।
- It is found in **contact forms**, **comment sections**, and **registration pages**.  
यह **संपर्क फॉर्म**, **टिप्पणी अनुभाग**, और **पंजीकरण पृष्ठों** में मिलता है।
- Financial and e-commerce websites use CAPTCHA during **signup**, **login**, and **purchase** to add extra security.  
वित्तीय और ई-कॉमर्स वेबसाइटें **साइनअप**, **लॉगिन**, और **खरीदारी** के दौरान CAPTCHA का उपयोग अतिरिक्त सुरक्षा के लिए करती हैं।
- CAPTCHA helps protect against **credit card theft** and **data breaches**.  
CAPTCHA **क्रेडिट कार्ड चोरी** और **डेटा उल्लंघनों** से सुरक्षा करता है।
- CAPTCHA ensures only real people can recover accounts, take surveys, and vote in polls.  
CAPTCHA यह सुनिश्चित करता है कि केवल असली लोग ही अकाउंट रिकवर कर सकें, सर्वे लें और पोल में वोट कर सकें।

## What are its limitations?

### CAPTCHA की सीमाएं क्या हैं?

- As **bots** get smarter, they can sometimes trick CAPTCHA.  
जैसे-जैसे **बॉट्स** स्मार्ट हो रहे हैं, वे कभी-कभी CAPTCHA को धोखा दे सकते हैं।
- For **people with disabilities**, like blindness or hearing problems, CAPTCHA can be very hard.  
**दिव्यांग लोगों**, जैसे अंधेपन या सुनने में दिक्कत वाले लोगों के लिए CAPTCHA बहुत मुश्किल हो सकता है।
- CAPTCHA adds an **extra step** that can be annoying, especially on **mobile devices**.  
CAPTCHA एक **अतिरिक्त चरण** जोड़ता है जो विशेषकर **मोबाइल उपकरणों** पर कष्टप्रद हो सकता है।

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**Website : patrioticias.in**



- Some tests are too hard, leading to frustration and users leaving the site.  
कुछ परीक्षण बहुत कठिन होते हैं, जिससे उपयोगकर्ता निराश होकर साइट छोड़ देते हैं।
- **Machine learning** is helping bots get better at solving even complex CAPTCHA.  
मशीन लर्निंग बॉट्स को जटिल CAPTCHA हल करने में सक्षम बना रही है।

## What lies ahead?

### आगे क्या हो सकता है?

- CAPTCHA has changed how websites protect user accounts and data.  
CAPTCHA ने वेबसाइटों द्वारा उपयोगकर्ता खातों और डेटा की सुरक्षा करने के तरीके को बदल दिया है।
- From simple text to **advanced reCAPTCHA**, it has improved **online safety**.  
साधारण टेक्स्ट से लेकर उन्नत reCAPTCHA तक, इसने ऑनलाइन सुरक्षा को बेहतर बनाया है।
- But as **bots evolve** and user expectations change, CAPTCHA must become **more accessible and effective**.  
लेकिन जैसे-जैसे बॉट्स विकसित होते हैं और उपयोगकर्ताओं की अपेक्षाएं बदलती हैं, CAPTCHA को अधिक सुलभ और प्रभावी बनना होगा।

## Rebate/Marginal Relief

Marginal Relief (MR) available for Income above ₹12 lakh but less than ₹12.75 lakh

Income Range	Rate	Tax	Rebate/Marginal Relief	Tax After Marginal Relief
₹0-4 lakh	0%	NIL Tax	Not Applicable	NIL Tax
₹4-8 lakh	5%	₹20,000	₹20,000 (Rebate)	NIL Tax
₹8-12 lakh	10%	₹40,000	₹40,000 (Rebate)	NIL Tax
₹12.10 lakh	15%	₹1,500 (10,000*15%)	₹51,500 (₹61,500-₹10,000)	₹10,000 + Cess (Tax-MR)
₹12.25 lakh	15%	₹3,750 (25,000*15%)	₹38,750 (₹63,750-₹25,000)	₹25,000 + Cess (Tax-MR)
₹12.50 lakh	15%	₹7,500 (50,000*15%)	₹17,500 (₹67,500-₹50,000)	₹50,000 + Cess (Tax-MR)
₹12.70 lakh	15%	₹10,500 (70,000*15%)	₹500 (₹70,500-₹70,000)	₹70,000 + Cess (Tax-MR)
₹12.75-16 lakh	15%			
₹16-20 lakh	20%	No Rebate/No MR (Tax must be paid as per original slab rates + Cess)		
₹20-24 lakh	25%			
Above ₹24 lakh	30%			



# No tax on up to ₹12 lakh income but why slabs?

As per Union Budget 2025, there will be no IT on income up to ₹12 lakh a year under New Tax Regime; so, what do the slabs with an interval of ₹4 lakh in each income range category convey?

## GS Paper III: Income Tax

### DECODING IT

Vaishali R. Venkat

**I**n February 1, 2025, in her 74-minute Union Budget speech, Finance Minister Nirmala Sitharaman said there will be no tax on income up to ₹12,00,000 per annum, under the New Tax Regime (NTR).

Factoring in Standard Deduction of ₹75,000, this limit would be extended to ₹12,75,000 per annum for salaried taxpayers.

On top of it, Ms. Sitharaman also rejigged the slabs in equal intervals of ₹4 lakh between each slab. The slabs are ₹0-4 lakh (Nil), ₹4-8 lakh (Tax 5% – ₹20,000), ₹8-12 lakh (10% – ₹40,000), ₹12-16 lakh (15%), ₹16-20 lakh (20%), ₹20-24 lakh (25%) and above ₹24 lakh (30%). So, if income is ₹12.10 lakh, tax will be ₹60,000+₹1,500 viz. 15% of ₹10,000.

**New tax rate category**  
Additionally, she introduced a fresh 25% tax rate category, which was not available in the previous financial year.

As per previous year slabs, after 20% category the next category was 30%.

Now, this extended tax limit benefit is available only for those who choose the NTR. Whether to choose Old Tax Regime or New Tax Regime is purely a matter of choice and goal, which we covered earlier in our Moneywise column dated February 17.



Additionally, Finance Minister Nirmala Sitharaman introduced a fresh 25% tax rate category, which was not available in the previous financial year

Coming back to NTR slabs. It would be quite natural to ask if no tax is levied up to an income of ₹12,00,000 why only the slab ₹0-4 lakh shows NIL tax. Further, for income from ₹4-12 lakh, there is a corresponding tax rate of 5% to 10% in the respective columns. The question arising here is do you need to pay 5% tax (₹4-8 lakh category) if your salary is, say ₹5.5 lakh per annum!

Nay. For clarity's sake, let's for some time, keep aside the component of Standard Deduction and consider the slabs alone.

#### Two components

Going by her Budget announcement, ideally, the first slab and the corresponding income tax rate should have been straight ₹0-12 lakh – NIL, but it's not and there are other slabs in between, with specific rates. This is because, the calculation of income tax always takes into account two components to derive the final taxable income.

The first component is the simple straight-forward component of Standard Deduction (₹75,000 under NTR), which would shrink the total tax payable



You can claim the 'marginal relief' if your taxable income is more than ₹12 lakh but lower than ₹12.75 lakh according to a CBDT circular

amount directly. Next, a slightly complicated component known as rebate, which falls under Section 87A of the Income Tax Act.

You cannot deduct the rebate amount directly from the taxable income as in the case of Standard Deduction. Rebate acts like a discount, provided, your total income satisfies certain criterion.

A 'discount' (Rebate) of ₹60,000 is applicable to taxpayers only if the total taxable income is within the stipulated limit of ₹12,00,000. In Budget 2025, the Finance Minister also raised rebate amount from ₹25,000 to ₹60,000, but only for NTR.

In short, if your taxable income is within ₹12,00,000, your tax amount would be ₹60,000 (₹20,000 plus ₹40,000). However, as your income is within the threshold of ₹12,00,000, you can claim the Rebate (discount) of ₹60,000, bringing your net taxable amount to zero [₹60,000 tax minus ₹60,000 Rebate].

So, what if your taxable income crosses the threshold of ₹12,00,000? You cannot claim the Rebate, thereby paying higher tax

amount. Suppose let's say you earn ₹12,10,000 in a year. As the no-tax limit is exceeded by ₹10,000, Rebate is not applicable. For earning ₹10,000 more per annum, you end up paying ₹61,500 (₹20,000 + ₹40,000 + ₹1,500).

But a clarification by the Central Board of Direct Taxes (CBDT) addresses the anomaly by way of providing 'marginal relief'. You can claim the 'marginal relief' if your taxable income is more than ₹12 lakh but less than ₹12.75 lakh.

In the above example, total tax payable is ₹61,500 without 'marginal relief' but with marginal relief, it would be much lower. To calculate marginal relief, deduct the excess amount over no-tax limit (₹10,000) from total tax payable of ₹61,500. Thus, marginal relief would be ₹51,500 and so, the final tax payout would only be ₹10,000 (₹61,500 minus ₹51,500 of marginal relief).

#### Exceeding limit

What if taxable income exceeds ₹12.75 lakh? Unfortunately, you cannot avail both Rebate and benefit of marginal relief, thus paying more tax. However, if your employer contributes to National Pension Scheme, you can claim the contribution amount under Section 80CCD(2), up to 14% of your basic salary, thus reducing the tax burden. Your contribution to the scheme would not be taken into account.

(The writer is an NISM & CRISIL-certified wealth manager)

**No tax on up to ₹12 lakh income but why slabs?**

**₹12 लाख तक आय**

**पर कोई टैक्स नहीं,**

**फिर स्लैब क्यों?**

**On February 1, 2025, in her 74-minute Union Budget speech, Finance Minister Nirmala Sitharaman said there will be no tax on income up to ₹12,00,000 per annum, under the New Tax Regime (NTR).**

**1 फरवरी 2025 को**

**अपने 74 मिनट के बजट**

**भाषण में वित्त मंत्री**

**निर्मला सीतारमण ने कहा**

**कि नई कर व्यवस्था**

**(NTR) के तहत**

**₹12,00,000 प्रति वर्ष तक की आय पर कोई टैक्स नहीं लगेगा।**

• Factoring in Standard Deduction of ₹75,000, this limit would be extended to ₹12,75,000 per annum for salaried taxpayers.



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₹75,000 की स्टैंडर्ड डिडक्शन को शामिल करने पर यह सीमा ₹12,75,000 प्रति वर्ष तक के वेतनभोगी करदाताओं के लिए बढ़ जाती है।

• On top of it, Ms. Sitharaman also rejigged the **slabs in equal intervals of ₹4 lakh** between each slab.

इसके अलावा, श्रीमती सीतारमण ने प्रत्येक स्लैब के बीच ₹4 लाख के बराबर अंतराल पर नए स्लैब बनाए।

• The slabs are ₹0-4 lakh (Nil), ₹4-8 lakh (5% — ₹20,000), ₹8-12 lakh (10% — ₹40,000), ₹12-16 lakh (15%), ₹16-20 lakh (20%), ₹20-24 lakh (25%) and above ₹24 lakh (30%).

स्लैब हैं: ₹0-4 लाख (शून्य), ₹4-8 लाख (5% — ₹20,000), ₹8-12 लाख (10% — ₹40,000), ₹12-16 लाख (15%), ₹16-20 लाख (20%), ₹20-24 लाख (25%) और ₹24 लाख से ऊपर (30%)।

• So, if income is ₹12.10 lakh, tax will be ₹60,000 + ₹1,500 (i.e. 15% of ₹10,000).

इसलिए, यदि आय ₹12.10 लाख है, तो टैक्स ₹60,000 + ₹1,500 (₹10,000 का 15%) होगा।

## New tax rate category

### नई टैक्स दर श्रेणी

• Additionally, she introduced a **fresh 25% tax rate category**, which was not available in the **previous financial year**.

इसके अलावा, उन्होंने नई 25% टैक्स दर श्रेणी पेश की, जो पिछले वित्त वर्ष में उपलब्ध नहीं थी।

• As per previous year slabs, after **20% category** the next category was **30%**.

पिछले साल के स्लैब के अनुसार, 20% की श्रेणी के बाद अगली श्रेणी 30% थी।

• Now, this **extended tax limit benefit** is available only for those who choose the **NTR**.

अब यह बढ़ी हुई टैक्स सीमा का लाभ केवल नई टैक्स व्यवस्था (NTR) चुनने वालों को मिलेगा।

• Whether to choose **Old Tax Regime or New Tax Regime** is purely a matter of **choice and goal**.

पुरानी टैक्स व्यवस्था या नई टैक्स व्यवस्था को चुनना पूरी तरह व्यक्ति की पसंद और लक्ष्य पर निर्भर करता है।

## Why have slabs if income up to ₹12 lakh is tax-free?

### अगर ₹12 लाख तक की आय टैक्स-फ्री है, तो स्लैब क्यों हैं?

• It would be quite natural to ask if **no tax is levied up to ₹12 lakh**, why only the **₹0-4 lakh slab** shows **NIL tax**.

यदि ₹12 लाख तक कोई टैक्स नहीं है, तो यह सवाल उठना स्वाभाविक है कि केवल ₹0-4 लाख स्लैब पर ही शून्य टैक्स क्यों दिखाया गया है।

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• Further, for income from **₹4-12 lakh**, there is a corresponding tax rate of **5% to 10%**.  
इसके अलावा, ₹4-12 लाख की आय पर 5% से 10% तक का टैक्स दर लागू होता है।

• The question is — do you need to pay **5% tax** (₹4-8 lakh category) if your salary is ₹5.5 lakh per annum?

सवाल यह है — क्या आपको ₹5.5 लाख सालाना वेतन पर **5% टैक्स** देना होगा (₹4-8 लाख श्रेणी)?

• Nay. For clarity's sake, let's for some time, keep aside the component of **Standard Deduction** and consider the slabs alone.

नहीं। स्पष्टता के लिए, कुछ समय के लिए **स्टैंडर्ड डिडक्शन** को अलग रखकर केवल स्लैब को समझते हैं।

## Two components of tax calculation

### टैक्स गणना के दो घटक

• Going by her Budget announcement, ideally, the first slab should have been straight **₹0-12 lakh – NIL**, but it's not.

बजट घोषणा के अनुसार, पहला स्लैब सीधे **₹0-12 लाख – शून्य टैक्स** होना चाहिए था, लेकिन ऐसा नहीं है।

• This is because tax calculation takes into account **two components** to derive the final taxable income.

ऐसा इसलिए है क्योंकि टैक्स की गणना में **दो घटकों** को शामिल किया जाता है ताकि अंतिम टैक्सेबल आय निकाली जा सके।

• First component is the **Standard Deduction (₹75,000)**, which directly reduces total taxable income.

पहला घटक है **स्टैंडर्ड डिडक्शन (₹75,000)**, जो सीधे टैक्स योग्य आय को कम करता है।

• Second is **rebate** under **Section 87A** of the Income Tax Act, which is like a **discount** on tax amount.

दूसरा है **धारा 87A** के तहत **छूट (rebate)**, जो टैक्स राशि पर एक तरह की **छूट** होती है।

## Rebate explained

### रिबेट को समझना

• A rebate of **₹60,000** is applicable only if **total taxable income is within ₹12,00,000**.

**₹60,000** की रिबेट केवल तभी लागू होती है जब **कुल टैक्सेबल आय ₹12,00,000** के भीतर हो।

• In **Budget 2025**, rebate amount was raised from **₹25,000 to ₹60,000**, but only for **NTR**.

**बजट 2025** में रिबेट राशि को **₹25,000 से बढ़ाकर ₹60,000** किया गया, लेकिन केवल **नई टैक्स व्यवस्था (NTR)** के लिए।

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• So, if your taxable income is within ₹12,00,000, your tax would be ₹60,000 (₹20,000 + ₹40,000).

यदि आपकी टैक्सेबल आय ₹12,00,000 के भीतर है, तो आपका टैक्स ₹60,000 (₹20,000 + ₹40,000) होगा।

• Since income is within the threshold, you can claim **Rebate of ₹60,000**, making **net tax = zero**.

चूंकि आय सीमा के भीतर है, आप ₹60,000 की रिबेट का दावा कर सकते हैं और अंतिम टैक्स = शून्य होगा।

## What if income exceeds ₹12 lakh?

### अगर आय ₹12 लाख से ज़्यादा हो जाए तो?

• If taxable income is ₹12,10,000, **Rebate is not applicable**, and tax will be ₹61,500 (₹60,000 + ₹1,500).

यदि टैक्सेबल आय ₹12,10,000 है, तो रिबेट लागू नहीं होगी, और टैक्स ₹61,500 (₹60,000 + ₹1,500) होगा।

## Marginal relief explained

### मार्जिनल रिलीफ को समझना

• CBDT clarified this anomaly by introducing '**marginal relief**', for income **more than ₹12 lakh but less than ₹12.75 lakh**.

CBDT ने इस असमानता को 'मार्जिनल रिलीफ' के माध्यम से स्पष्ट किया, जो ₹12 लाख से अधिक लेकिन ₹12.75 लाख से कम आय पर लागू होती है।

• In the above example, **total tax = ₹61,500**, **marginal relief = ₹51,500**, hence **final tax = ₹10,000**.

उपरोक्त उदाहरण में, कुल टैक्स = ₹61,500, मार्जिनल रिलीफ = ₹51,500, इसलिए अंतिम टैक्स = ₹10,000।

## Exceeding ₹12.75 lakh

### ₹12.75 लाख से अधिक होने पर

• If **taxable income exceeds ₹12.75 lakh**, you cannot claim **Rebate or Marginal Relief**.

अगर टैक्सेबल आय ₹12.75 लाख से अधिक है, तो आप रिबेट या मार्जिनल रिलीफ का दावा नहीं कर सकते।

• However, if employer contributes to **National Pension Scheme**, you can claim up to **14% of basic salary under Section 80CCD(2)**.

हालाँकि, यदि नियोजक राष्ट्रीय पेंशन योजना में योगदान करता है, तो आप धारा 80CCD(2) के तहत मूल वेतन का 14% तक का दावा कर सकते हैं।

• Your own contribution to the scheme is **not included** in this deduction.

इस कटौती में आपकी अपनी योगदान राशि शामिल नहीं होती है।

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## Why change track to hydrogen?

GS Paper III: Environment

Lalith Trivedi

Indian Railways, one of the world's largest rail networks, is on the verge of a historic milestone: near 100% electrification of its vast track system. This ambitious transition underscores a strategic commitment to modernisation and decarbonisation. However, in this electrified landscape, does investing in hydrogen-powered locomotives align with rational decision-making?

A closer examination suggests otherwise.

### Pros of electrification

The electrification of Indian Railways is a multi-year, multi-billion-dollar endeavour, aimed at reducing carbon emissions and fossil-fuel dependence. Today, electric



**Practical option:** Electrification will stay the most efficient, economically viable and sustainable path forward.

trains dominate the network, supported by a grid that is increasingly powered by renewable sources like solar and wind. The government cites this as a cornerstone of its climate strategy, projecting substantial cuts in greenhouse gas emissions.

More importantly, the

electrification has delivered tangible economic benefits. It has significantly lowered traction costs, compared with diesel-powered operations, improving efficiency while reducing operational expenses. Given this progress, the shift to hydrogen – a technology still in its infancy –

raises serious economic and technical concerns.

### Unviable alternative

While some European nations, including Germany and France, have piloted hydrogen-powered trains, the experiments have yielded mixed results, particularly in terms of commercial viability. These trains have primarily been deployed on low-traffic branch lines where electrification is not feasible. In contrast, Indian Railways has prioritised full electrification, leaving little room for hydrogen traction to add value.

### Significant challenges

Storage and transportation complexity – Hydrogen must be stored at extremely high pressure (above 350 bar) or in liquid form

at ultra-low temperature (-253 degree C). Both need costly and complex infrastructure, raising operational risks and expenses.

Inefficiency in energy conversion – “Green hydrogen” production requires substantial electricity. Given that nearly 70% of India's power generation still comes from coal-fired plants, using this energy to produce hydrogen, rather than feeding it into the grid for electric trains, results in avoidable energy losses.

High cost of distribution – Establishing a hydrogen ecosystem for railways would necessitate a vast investment in production, compression, transportation, and refuelling infrastructure; this money would be better spent on expanding electrification and renewable energy

capacity.

Safety concerns – Hydrogen's high flammability demands rigorous safety measures, adding another layer of complexity and cost. Transporting and handling hydrogen at scale would require extensive regulatory frameworks and risk mitigation strategies.

Railways must choose between reinforcing success in electrification or diverting resources to an untested hydrogen future. Given the existing infrastructure, proven cost advantages and ongoing renewable energy integration, the logical choice is clear: electrification stay the most efficient, economically viable, and sustainable path forward.

(The writer is with The Hindu businessline)

## Why change track to hydrogen?

### हाइड्रोजन की ओर रुख क्यों करना चाहिए?

Indian Railways, one of the world's largest rail networks, is on the verge of a historic milestone: near 100% electrification of its vast track system.

भारतीय रेल, जो दुनिया के सबसे बड़े रेल नेटवर्कों में से एक है, अपने विशाल ट्रैक सिस्टम की लगभग 100% विद्युतीकरण की ऐतिहासिक उपलब्धि के करीब है।

- This ambitious transition underscores a strategic commitment to **modernisation and decarbonisation**.

यह महत्वाकांक्षी बदलाव आधुनिकीकरण और कार्बन-मुक्तिकरण के प्रति रणनीतिक प्रतिबद्धता को दर्शाता है।

- However, in this electrified landscape, does investing in **hydrogen-powered locomotives** align with rational decision-making?

हालांकि, इस विद्युतीकृत व्यवस्था में, हाइड्रोजन-संचालित इंजनों में निवेश करना क्या तार्किक निर्णय लेने के अनुरूप है?



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- A closer examination suggests otherwise.  
गहन विश्लेषण कुछ और संकेत देता है।

## Pros of electrification

### विद्युतीकरण के लाभ

- The electrification of Indian Railways is a **multi-year, multi-billion-dollar endeavour**, aimed at reducing **carbon emissions** and **fossil-fuel dependence**.  
भारतीय रेलवे का विद्युतीकरण एक कई वर्षों तक चलने वाला और अरबों डॉलर का प्रयास है, जिसका उद्देश्य कार्बन उत्सर्जन और जीवाश्म ईंधन पर निर्भरता को कम करना है।
- Today, **electric trains dominate** the network, supported by a grid that is increasingly powered by **renewable sources** like **solar and wind**.  
आज, नेटवर्क में इलेक्ट्रिक ट्रेनें प्रमुखता से चल रही हैं, जिन्हें सौर और पवन जैसे नवीकरणीय स्रोतों से संचालित ग्रिड का समर्थन प्राप्त है।
- The government cites this as a cornerstone of its **climate strategy**, projecting substantial cuts in **greenhouse gas emissions**.  
सरकार इसे अपनी जलवायु रणनीति की आधारशिला मानती है और ग्रीनहाउस गैस उत्सर्जन में भारी कटौती का अनुमान लगाती है।
- More importantly, the electrification has delivered **tangible economic benefits**.  
सबसे महत्वपूर्ण बात यह है कि विद्युतीकरण ने ठोस आर्थिक लाभ दिए हैं।
- It has significantly lowered **traction costs**, compared with **diesel-powered operations**, improving **efficiency** while reducing **operational expenses**.  
इससे डीजल-चालित संचालन की तुलना में ट्रैक्शन लागत में उल्लेखनीय कमी आई है, जिससे प्रभावशीलता बढ़ी है और ऑपरेशनल खर्च घटे हैं।
- Given this progress, the shift to **hydrogen** — a technology still in its **infancy** — raises serious **economic and technical concerns**.  
इस प्रगति को देखते हुए, हाइड्रोजन, जो अभी भी अपनी शुरुआती अवस्था में है, की ओर रुख करना गंभीर आर्थिक और तकनीकी चिंताओं को जन्म देता है।

## Unviable alternative

### अव्यवहारिक विकल्प

- While some **European nations**, including **Germany and France**, have piloted **hydrogen-powered trains**, the experiments have yielded **mixed results**, particularly in terms of **commercial viability**.  
हालांकि कुछ यूरोपीय देशों जैसे जर्मनी और फ्रांस ने हाइड्रोजन ट्रेनों का परीक्षण किया है, लेकिन ये प्रयोग व्यावसायिक व्यवहार्यता के लिहाज से मिश्रित परिणाम दे पाए हैं।



- These trains have primarily been deployed on **low-traffic branch lines** where **electrification is not feasible**.  
इन ट्रेनों को मुख्यतः **कम ट्रेफिक वाली शाखाओं** पर चलाया गया है जहाँ **विद्युतीकरण संभव नहीं** है।
- In contrast, Indian Railways has prioritised **full electrification**, leaving little room for **hydrogen traction** to add value.  
इसके विपरीत, भारतीय रेलवे ने **पूर्ण विद्युतीकरण** को प्राथमिकता दी है, जिससे **हाइड्रोजन ट्रेक्शन** के लिए बहुत कम अवसर बचे हैं।

## Significant challenges

### महत्वपूर्ण चुनौतियाँ

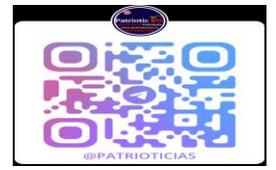
- **Storage and transportation complexity** — Hydrogen must be stored at **extremely high pressure (above 350 bar)** or in **liquid form at ultra-low temperature (-253°C)**.  
**भंडारण और परिवहन की जटिलता** — हाइड्रोजन को **बहुत उच्च दबाव (350 बार से अधिक)** पर या **अत्यंत निम्न तापमान (-253 डिग्री सेल्सियस)** पर तरल रूप में संग्रहीत करना होता है।
- Both need **costly and complex infrastructure**, raising **operational risks and expenses**.  
दोनों ही स्थितियों में **महंगे और जटिल बुनियादी ढांचे** की आवश्यकता होती है, जिससे **ऑपरेशनल जोखिम और खर्च बढ़ते हैं**।
- **Inefficiency in energy conversion** — “Green hydrogen” production requires **substantial electricity**.  
**ऊर्जा रूपांतरण में अक्षमता** — “ग्रीन हाइड्रोजन” उत्पादन के लिए **काफी मात्रा में बिजली** की आवश्यकता होती है।
- Given that nearly **70% of India’s power generation** still comes from **coal-fired plants**, using this energy to produce hydrogen, rather than feeding it into the grid for electric trains, results in **avoidable energy losses**.  
चूंकि भारत की **करीब 70% बिजली उत्पादन** अब भी **कोयला आधारित संयंत्रों** से होता है, इसलिए इस बिजली का उपयोग हाइड्रोजन बनाने में करने की बजाय ग्रिड को देने पर **ऊर्जा हानि से बचा जा सकता है**।
- **High cost of distribution** — Establishing a **hydrogen ecosystem** for railways would necessitate a vast investment in **production, compression, transportation, and refuelling infrastructure**.  
**वितरण की उच्च लागत** — रेलवे के लिए **हाइड्रोजन प्रणाली** स्थापित करने में **उत्पादन, संपीड़न, परिवहन और रिफ्यूइंग** के लिए भारी निवेश की आवश्यकता होगी।
- This money would be **better spent** on expanding **electrification** and **renewable energy capacity**.  
यह पैसा **विद्युतीकरण** और **नवीकरणीय ऊर्जा क्षमता** के विस्तार पर खर्च करना **ज्यादा उचित** होगा।
- **Safety concerns** — Hydrogen’s **high flammability** demands rigorous **safety measures**, adding another layer of **complexity and cost**.



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

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**सुरक्षा चिंताएँ** — हाइड्रोजन की अत्यधिक ज्वलनशीलता के कारण कड़ी सुरक्षा उपायों की आवश्यकता होती है, जिससे जटिलता और लागत और बढ़ जाती है।

- Transporting and handling hydrogen at scale would require **extensive regulatory frameworks and risk mitigation strategies.**

हाइड्रोजन का बड़े स्तर पर परिवहन और संचालन करने के लिए व्यापक नियमों और जोखिम कम करने की रणनीतियों की आवश्यकता होगी।

## Railways must choose wisely

### रेलवे को समझदारी से चयन करना चाहिए

- Railways must choose between **reinforcing success in electrification** or **diverting resources** to an **untested hydrogen future.**  
रेलवे को विद्युतीकरण की सफलता को मजबूत करने और एक अप्रयुक्त हाइड्रोजन भविष्य में संसाधनों को मोड़ने के बीच चयन करना होगा।
- Given the **existing infrastructure, proven cost advantages,** and **ongoing renewable energy integration,** the logical choice is clear:  
वर्तमान बुनियादी ढांचे, सिद्ध लागत लाभ और नवीकरणीय ऊर्जा के एकीकरण को देखते हुए तार्किक विकल्प स्पष्ट है:
- **Electrification stays** the most **efficient, economically viable,** and **sustainable** path forward.  
विद्युतीकरण ही सबसे प्रभावी, आर्थिक रूप से व्यवहारिक, और सतत रास्ता है।



# Wangchuk's videos help Pakistan beat water crisis with artificial glaciers

**GS Paper III:  
Environment/S&T**

HUSSAINABAD

At the foot of Pakistan's impossibly high mountains whitened by frost all year round, farmers grappling with water scarcity have created ice towers. Warmer winters as a result of climate change have reduced snowfall and subsequent seasonal snowmelt that feeds the valleys of Gilgit-Baltistan, a remote region home to K2, the world's second-highest peak.

Farmers in the Skardu valley, at an altitude of about 2,600 m in the shadow of the Karakoram mountain range, searched online for help to irrigate their apple and apricot orchards.

"We discovered artificial glaciers on YouTube," Ghulam Haider Hashmi said. They watched the videos of Sonam Wangchuk, an envi-



The ice towers created in villages in Gilgit-Baltistan during winter melt in spring to irrigate farmers' apple and apricot orchards. AFP

ronmental activist and engineer in the Indian region of Ladakh who developed the technique about 10 years ago.

The first "ice stupas" in Gilgit-Baltistan were created in 2018. Now, more than 20 villages make them every winter, and "more than 16,000 residents have access to water without hav-

ing to build reservoirs or tanks", said Rashid-ud-Din, provincial head of GLOF-2, a UN-Pakistan plan to adapt to the effects of climate change.

Water is piped from streams into the village, and sprayed in the air in freezing winter temperatures.

"The water must be pro-

pelled so that it freezes in the air when temperatures drop below zero, creating ice towers," said Zakir Husain Zakir, a professor at the University of Baltistan.

The ice forms in the shape of cones that resemble Buddhist stupas, and act as a storage system – steadily melting throughout spring when temperatures rise.

Gilgit-Baltistan has 13,000 glaciers – more than any other country on Earth outside the polar regions.

Sher Muhammad, a specialist in the Hindu Kush-Himalayan mountain range, however said most of the region's water supply comes from snowmelt in spring. "From late October until early April, we were receiving heavy snowfall. But in the past few years, it's quite dry," Mr. Muhammad said.

## Wangchuk's videos help Pakistan beat water crisis with artificial glaciers

वांगचुक के वीडियो पाकिस्तान को कृत्रिम ग्लेशियरों से जल संकट से उबरने में मदद करते हैं

At the foot of Pakistan's impossibly high mountains whitened by frost all year round, farmers grappling with water scarcity have created ice towers.



पाकिस्तान के बेहद ऊँचे पहाड़ों के नीचे, जो साल भर बर्फ से ढके रहते हैं, जल संकट से जूझ रहे किसानों ने बर्फ के टॉवर बनाए हैं।

• **Warmer winters** as a result of **climate change** have reduced **snowfall** and subsequent **seasonal snowmelt** that feeds the valleys of **Gilgit-Baltistan**, a remote region home to **K2**, the **world's second-highest peak**.

जलवायु परिवर्तन के कारण सर्दियाँ गर्म हो गई हैं, जिससे बर्फबारी और बाद की मौसमी हिमपिघलन में कमी आई है, जो गिलगित-बाल्टिस्तान की घाटियों को पानी प्रदान करती थी — यह क्षेत्र दुनिया की दूसरी सबसे ऊँची चोटी K2 का घर है।

• Farmers in the **Skardu valley**, at an altitude of about **2,600 m** in the shadow of the **Karakoram mountain range**, searched online for help to irrigate their **apple and apricot orchards**.

काराकोरम पर्वतमाला की छाया में करीब 2,600 मीटर की ऊंचाई पर स्थित स्कार्दू घाटी के किसानों ने अपने सेब और खुबानी के बागों की सिंचाई के लिए ऑनलाइन मदद ढूँढी।

• “We discovered **artificial glaciers** on **YouTube**,” Ghulam Haider Hashmi said.

गुलाम हैदर हाशमी ने कहा, “हमें यूट्यूब पर कृत्रिम ग्लेशियरों के बारे में जानकारी मिली।”

• They watched the videos of **Sonam Wangchuk**, an environmental activist and engineer in the **Indian region of Ladakh** who developed the technique about **10 years ago**.

उन्होंने भारतीय क्षेत्र लद्दाख के पर्यावरण कार्यकर्ता और अभियंता सोनम वांगचुक के वीडियो देखे, जिन्होंने यह तकनीक करीब 10 साल पहले विकसित की थी।

• The first “**ice stupas**” in **Gilgit-Baltistan** were created in **2018**.

गिलगित-बाल्टिस्तान में पहली “बर्फ स्तूप” 2018 में बनाए गए थे।

• Now, **more than 20 villages** make them every winter, and **more than 16,000 residents** have access to water without having to build **reservoirs or tanks**, said Rashid-ud-Din, provincial head of **GLOF-2**, a **UN-Pakistan plan** to adapt to the effects of **climate change**.

अब 20 से अधिक गांव हर सर्दी में इन्हें बनाते हैं और 16,000 से अधिक लोग बिना जलाशय या टैंक बनाए पानी प्राप्त कर रहे हैं, ऐसा GLOF-2 के प्रांतीय प्रमुख राशिद-उद-दीन ने कहा — यह संयुक्त राष्ट्र-पाकिस्तान योजना है जो जलवायु परिवर्तन के प्रभावों से निपटने के लिए बनाई गई है।

• **Water is piped** from **streams** into the village, and sprayed in the air in **freezing winter temperatures**.

सर्दियों में जब तापमान शून्य से नीचे चला जाता है, तब नालों से पानी पाइप के ज़रिए गांव में लाया जाता है और हवा में छिड़का जाता है।



• “The water must be propelled so that it **freezes in the air** when temperatures drop below **zero**, creating **ice towers**,” said Zakir Hussain Zakir, a professor at the **University of Baltistan**.

बालतिस्तान विश्वविद्यालय के प्रोफेसर जाकिर हुसैन जाकिर ने कहा, “पानी को इस तरह फेंकना होता है कि वह हवा में ही जम जाए, जब तापमान शून्य से नीचे चला जाता है, जिससे बर्फ के टॉवर बनते हैं।”

• The **ice forms** in the shape of **cones** that resemble **Buddhist stupas**, and act as a **storage system** — steadily melting throughout **spring** when **temperatures rise**.

बर्फ शंकु के आकार में जमती है जो बौद्ध स्तूपों जैसी दिखती है, और यह एक भंडारण प्रणाली के रूप में काम करती है — जो वसंत ऋतु में तापमान बढ़ने पर धीरे-धीरे पिघलती है।

• **Gilgit-Baltistan** has **13,000 glaciers** — more than any other country on Earth outside the **polar regions**.

गिलगित-बाल्टिस्तान में 13,000 ग्लेशियर हैं — जो ध्रुवीय क्षेत्रों के बाहर किसी भी देश से अधिक हैं।

• **Sher Muhammad**, a specialist in the **Hindu Kush-Himalayan mountain range**, however said most of the region’s **water supply** comes from **snowmelt in spring**.

हालांकि, हिंदू कुश-हिमालय पर्वतमाला के विशेषज्ञ शेर मुहम्मद ने कहा कि इस क्षेत्र का अधिकतर जल आपूर्ति वसंत ऋतु में बर्फ पिघलने से होती है।

• “From **late October** until **early April**, we were receiving **heavy snowfall**. But in the past few years, it’s quite dry,” Mr. Muhammad said.

शेर मुहम्मद ने कहा, “अक्टूबर के अंत से अप्रैल की शुरुआत तक हम भारी बर्फबारी प्राप्त करते थे। लेकिन पिछले कुछ वर्षों में यह काफी सूखा रहा है।”