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THE HINDU NEWSPAP

07 SEPTEMBER 2025

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TOPICS COVERED (PCS Special)

- 1. PM skips UN trip; Jaishankar to address General Assembly**
प्रधानमंत्री ने संयुक्त राष्ट्र यात्रा छोड़ दी; जयशंकर करेंगे महासभा को संबोधित
- 2. CoWIN portal outage blocks certificate access**
CoWIN पोर्टल की खराबी से सर्टिफिकेट एक्सेस बाधित

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INSIDE



CoWIN portal outage blocks certificate access

PCS

NEW DELHI

The CoWIN portal has been down since early August, a weeks-long outage that has locked many residents in India out of their vaccination certificates. On August 23, a source said that the outage would be addressed. However, the issue remains. » PAGE 5

CoWIN portal outage blocks certificate access

CoWIN पोर्टल की खराबी से सर्टिफिकेट एक्सेस बाधित

• The **CoWIN portal** has been down since **early August**, a weeks-long outage that has locked many residents in **India** out of their **vaccination certificates**.

CoWIN पोर्टल अगस्त की शुरुआत से बंद है, यह कई हफ्तों तक चलने वाली खराबी ने **भारत** के कई निवासियों को उनके **टीकाकरण सर्टिफिकेट** से वंचित कर दिया है।

• On **August 23**, a source said that the **outage** would be addressed.

23 अगस्त को एक स्रोत ने कहा कि इस **खराबी** को ठीक किया जाएगा।

• However, the issue **remains**.

हालांकि, यह समस्या **अब भी बनी हुई है**।



PM skips UN trip; Jaishankar to address General Assembly

Modi was scheduled to speak on September 26; Trump will address world leaders on Sept. 23; theme for session is 'Better together: 80 years and more for peace, development, human rights'

PCS

Press Trust of India

UNITED NATIONS

P rime Minister Narendra Modi will not address the General Debate at the annual high-level session of the United Nations General Assembly (UNGA) later this month, according to a revised provisional list of speakers issued in United Nations.

The 80th session of the U.N. General Assembly will open on September 9. The General Debate will run from September 23-29, with Brazil as the traditional first speaker of the session, followed by the U.S.

U.S. President Donald Trump will address world leaders on September 23, his first address to the UN session in his second term in the White House.

According to a revised provisional list of speakers released on Friday, India will be represented by a 'Minister'. External Affairs Minister S. Jaishankar will address the session on September 27.



Global stage: Narendra Modi addresses the Summit of the Future at the 79th UNGA session in New York in September 2024. ANI

According to a previous list issued in July, Mr. Modi was scheduled to address on September 26. The heads of government of Israel, China, Pakistan and Bangladesh were scheduled to address the UNGA General Debate on the same date. Mr. Modi had travelled to the U.S. in February for a bilateral meeting with Mr. Trump at the White House. Mr. Trump has imposed tariffs totalling 50% on India, includ-

ing 25% for Delhi's purchases of Russian oil.

The UNGA list of speakers for the General Debate is provisional and there is always possibility of changes in schedules and speakers. The list will continue to be updated accordingly.

Theme for 80th session

The session this year comes amid the continued Israel-Hamas war as well as the Ukraine conflict.

The theme for the 80th session is 'Better together: 80 years and more for peace, development and human rights'.

The session will open with a meeting to 'Commemorate the 80th Anniversary of the United Nations' on September 22.

Marking the 30th anniversary of the Fourth World Conference on Women, a high-level meeting will be centred on the theme "Recommitting to, resourcing and accelerating the implementation of the Beijing Declaration and Platform for Action to achieve gender equality and the empowerment of women and girls".

U.N. Secretary-General Antonio Guterres will convene a climate summit on September 24. Meetings will also be held on global economy; mental health; AI governance; International Day for the Total Elimination of Nuclear Weapons; and the status of Rohingya Muslims and other minorities in Myanmar.

PM skips UN trip; Jaishankar to address General Assembly प्रधानमंत्री ने संयुक्त राष्ट्र यात्रा छोड़ दी; जयशंकर करेंगे महासभा को संबोधित

- **Modi** was scheduled to speak on **September 26**; **Trump** will address world leaders on **Sept. 23**; theme for session is 'Better together: 80 years and more for peace, development, human rights'
- **मोदी** को **26 सितंबर** को बोलने के लिए निर्धारित किया गया था; **ट्रम्प** 23 **सितंबर** को विश्व नेताओं को संबोधित करेंगे; सत्र का विषय है 'साथ बेहतर: शांति, विकास और मानवाधिकार के लिए 80 साल और अधिक'



- Prime Minister Narendra Modi will not address the **General Debate** at the annual high-level session of the **United Nations General Assembly (UNGA)** later this month, according to a revised provisional list of speakers issued in **United Nations**
- प्रधानमंत्री नरेंद्र मोदी इस महीने के अंत में संयुक्त राष्ट्र महासभा (UNGA) के वार्षिक उच्च-स्तरीय सत्र में सामान्य बहस को संबोधित नहीं करेंगे, संयुक्त राष्ट्र में जारी संशोधित अस्थायी वक्ताओं की सूची के अनुसार
- The **80th session** of the **U.N. General Assembly** will open on **September 9**
- संयुक्त राष्ट्र महासभा का 80वां सत्र 9 सितंबर को खुलेगा
The **General Debate** will run from **September 23-29**, with **Brazil** as the traditional first speaker of the session, followed by the **U.S.**
- सामान्य बहस 23-29 सितंबर तक चलेगी, जिसमें ब्राज़ील सत्र के पारंपरिक पहले वक्ता होंगे, इसके बाद अमेरिका
- **U.S. President Donald Trump** will address world leaders on **September 23**, his first address to the **UN session** in his second term in the **White House**
- अमेरिका के राष्ट्रपति डोनाल्ड ट्रम्प 23 सितंबर को विश्व नेताओं को संबोधित करेंगे, यह उनके व्हाइट हाउस में दूसरे कार्यकाल में संयुक्त राष्ट्र सत्र को संबोधित करने का पहला मौका होगा
- According to a revised provisional list of speakers released on **Friday**, **India** will be represented by a '**Minister**'. **External Affairs Minister S. Jaishankar** will address the session on **September 27**
शुक्रवार को जारी संशोधित अस्थायी वक्ताओं की सूची के अनुसार, भारत का प्रतिनिधित्व एक 'मंत्री' द्वारा किया जाएगा। विदेश मंत्री एस. जयशंकर सत्र को 27 सितंबर को संबोधित करेंगे
- According to a previous list issued in **July**, **Modi** was scheduled to address on **September 26**. The heads of government of **Israel**, **China**, **Pakistan** and **Bangladesh** were scheduled to address the **UNGA General Debate** on the same date
जुलाई में जारी एक पूर्व सूची के अनुसार, मोदी को 26 सितंबर को संबोधित करने के लिए निर्धारित किया गया था। इज़राइल, चीन, पाकिस्तान और बांग्लादेश के सरकार प्रमुखों को उसी तारीख को **UNGA सामान्य बहस** को संबोधित करने के लिए निर्धारित किया गया था
- **Modi** had travelled to the **U.S.** in **February** for a bilateral meeting with **Trump** at the **White House**
- मोदी फरवरी में अमेरिका गए थे व्हाइट हाउस में ट्रम्प के साथ द्विपक्षीय बैठक के लिए
- **Trump** has imposed **tariffs totaling 50% on India**, including **25% for Delhi's purchases of Russian oil**
- ट्रम्प ने भारत पर कुल 50% शुल्क लगाया है, जिसमें दिल्ली द्वारा रूसी तेल की खरीद पर 25% शामिल है
- The **UNGA list of speakers** for the **General Debate** is provisional and there is always possibility of **changes in schedules and speakers**. The list will continue to be updated accordingly
- **UNGA वक्ताओं की सूची** सामान्य बहस के लिए अस्थायी है और समय-सारणी और वक्ताओं में परिवर्तन की हमेशा संभावना रहती है। सूची को तदनुसार अपडेट किया जाता रहेगा

Theme for 80th session 80वें सत्र का विषय

- The session this year comes amid the continued **Israel-Hamas war** as well as the **Ukraine conflict**
- इस साल का सत्र जारी इज़राइल-हमास युद्ध और यूक्रेन संघर्ष के बीच आता है
- The theme for the **80th session** is '**Better together: 80 years and more for peace, development and human rights**'
- 80वें सत्र का विषय है 'साथ बेहतर: शांति, विकास और मानवाधिकार के लिए 80 साल और अधिक'
- The session will open with a meeting to '**Commemorate the 80th Anniversary of the United Nations**' on **September 22**
सत्र की शुरुआत एक बैठक के साथ होगी 'संयुक्त राष्ट्र की 80वीं वर्षगांठ का स्मरण' 22 सितंबर को
- Marking the **30th anniversary of the Fourth World Conference on Women**, a high-level meeting will be centred on the theme "**Recommitting to, resourcing and accelerating the implementation of the Beijing Declaration and Platform for Action to achieve gender**



equality and the empowerment of women and girls"

- चौथी विश्व महिला सम्मेलन की 30वीं वर्षगांठ के अवसर पर, एक उच्च-स्तरीय बैठक का विषय होगा "बीजिंग घोषणा और कार्य मंच के कार्यान्वयन को फिर से प्रतिबद्ध करना, संसाधन देना और गति देना ताकि लिंग समानता और महिलाओं व लड़कियों के सशक्तिकरण को प्राप्त किया जा सके"
 - U.N. Secretary-General Antonio Guterres will convene a climate summit on September 24
 - संयुक्त राष्ट्र महासचिव एंटोनियो गुटेरेस 24 सितंबर को जलवायु शिखर सम्मेलन बुलाएंगे
 - Meetings will also be held on global economy; mental health; AI governance; International Day for the Total Elimination of Nuclear Weapons; and the status of Rohingya Muslims and other minorities in Myanmar
- बैठकें भी आयोजित की जाएंगी वैश्विक अर्थव्यवस्था; मानसिक स्वास्थ्य; एआई शासन; परमाणु हथियारों के पूर्ण उन्मूलन के लिए अंतर्राष्ट्रीय दिवस; और रोहिंग्या मुसलमानों और म्यांमार में अन्य अल्पसंख्यकों की स्थिति पर

TOPICS COVERED (GS Paper1)

1. **The vanishing practice of Apatanis**
अपातानी लोगों की लुप्त होती प्रथा
2. **Blood moon**
रक्त चंद्रमा

PATRIOTIC IAS



Fading heritage: Elderly women of the Apatani community, the last generation to wear the traditional tattoos and nose plugs.



Picturesque homeland: The bowl-shaped Ziro Valley, where agriculture remains the prime occupation.



Mark of identity: The Apatani women can still breathe through the nose with the plugs.



Generations together: An Apatani woman with facial tattoos playing with her granddaughter.

The vanishing practice of Apatanis

The Apatani women of Ziro Valley in Arunachal Pradesh are known for their facial tattoos and wooden nose plugs, banned in the 1970s, the tradition now survives only among older women



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S.S. Society
The Apatanis live in the Ziro Valley of the lower Subansiri district of Arunachal Pradesh. Ziro Valley is a bowl-shaped, picturesque land tucked into the lower ranges of the eastern Himalayas.

The Apatani women of Arunachal Pradesh were once known for their distinctive facial tattoos and nose plugs—a tradition that began as a means of protection against abduction and later evolved into a symbol of beauty and cultural identity. The Apatani men came up with the idea of nose plugs and tattoos with the intention of making their women appear less attractive to invaders. However, the practice was banned in the early 1970s, and, today, it is primarily seen only among older women, representing the last generation of this fading tradition.

Many Apatani women believe that large nose plugs and tattoos define them as members of the tribe. Even with the plugs, they are able to breathe through the nose.

The nose plugs, called *yaping hullo*, are made

from wood found in the forest. The wood must first be cleaned to avoid infection. The tattoos, known as *tippe*, are done by the elder women when an Apatani girl is about 10 years old.

The tradition of using large wooden nose plugs and tattoos were passed down from generation to generation. Women who followed it were considered honourable and were seen as protecting family dignity. However, in the early 1970s, the government banned the practice as it posed social hindrances, particularly for women seeking employment in cities.

Nowadays, not many Apatanis are seen using nose plugs and tattoos. Most are older women who consider the tradition an integral part of being Apatani. They remain proud of their identity.

Symbols of time: Older Apatani women in Ziro Valley continue to embody the fading tradition of *yaping hullo* (nose plugs) and *tippe* (tattoos).



The vanishing practice of Apatanis



अपातानी लोगों की लुप्त होती प्रथा

- The Apatani women of Ziro Valley in Arunachal Pradesh are known for their facial tattoos and wooden nose plugs; banned in the 1970s, the tradition now survives only among older women.
अरुणाचल प्रदेश की ज़ीरो घाटी की अपातानी महिलाएं अपने चेहरे के टैटू और लकड़ी के नाक के प्लग के लिए जानी जाती हैं; 1970 के दशक में इस प्रथा पर प्रतिबंध लगाया गया था, और अब यह परंपरा केवल बुजुर्ग महिलाओं में ही बची हुई है।
- The Apatanis live in the Ziro Valley of the lower Subansiri district of Arunachal Pradesh. अपातानी लोग, अरुणाचल प्रदेश के लोअर सुबनसिरी जिले की ज़ीरो घाटी में रहते हैं।
- Ziro Valley is a bowl-shaped, picturesque land tucked into the lower ranges of the eastern Himalayas.
ज़ीरो घाटी एक कटोरे के आकार की मनमोहक भूमि है, जो पूर्वी हिमालय की निचली श्रेणियों में बसी हुई है।
- The Apatani women of Arunachal Pradesh were once known for their distinctive facial tattoos and nose plugs — a tradition that began as a means of protection against abduction and later evolved into a symbol of beauty and cultural identity.
अरुणाचल प्रदेश की अपातानी महिलाएं कभी अपने विशिष्ट चेहरे के टैटू और नाक के प्लग के लिए जानी जाती थीं — यह परंपरा अपहरण से सुरक्षा के साधन के रूप में शुरू हुई थी और बाद में यह सौंदर्य और सांस्कृतिक पहचान का प्रतीक बन गई।
- The Apatani men came up with the idea of nose plugs and tattoos with the intention of making their women appear less attractive to invaders.
अपातानी पुरुषों ने नाक के प्लग और टैटू का विचार इस उद्देश्य से प्रस्तुत किया था कि उनकी महिलाएं आक्रमणकारियों को कम आकर्षक दिखाई दें।
- However, the practice was banned in the early 1970s, and today, it is primarily seen only among older women, representing the last generation of this fading tradition.
हालांकि, इस प्रथा पर प्रतिबंध 1970 के दशक की शुरुआत में लगा दिया गया था, और आज यह मुख्य रूप से केवल बुजुर्ग महिलाओं में ही देखी जाती है, जो इस लुप्त होती परंपरा की अंतिम पीढ़ी का प्रतिनिधित्व करती हैं।
- Many Apatani women believe that large nose plugs and tattoos define them as members of the tribe.
कई अपातानी महिलाएं मानती हैं कि बड़े नाक के प्लग और टैटू उन्हें जनजाति के सदस्य के रूप में परिभाषित करते हैं।
- Even with the plugs, they are able to breathe through the nose.
प्लग के साथ भी, वे नाक के माध्यम से सांस ले सकती हैं।
- The nose plugs, called yaping hullo, are made from wood found in the forest.
नाक के प्लग, जिन्हें यापिंग हुलो कहा जाता है, जंगल में मिलने वाली लकड़ी से बनाए जाते हैं।
- The wood must first be cleaned to avoid infection.
लकड़ी को पहले साफ करना जरूरी होता है ताकि संक्रमण से बचा जा सके।
- The tattoos, known as tippei, are done by the elder women when an Apatani girl is about 10 years old.
टैटू, जिन्हें टिपेई कहा जाता है, बुजुर्ग महिलाएं तब बनाती हैं जब कोई अपातानी लड़की लगभग 10 वर्ष की होती है।
- The tradition of using large wooden nose plugs and tattoos were passed down from generation to generation.
बड़े लकड़ी के नाक के प्लग और टैटू का उपयोग करने की यह परंपरा पीढ़ी दर पीढ़ी हस्तांतरित होती रही।
- Women who followed it were considered honourable and were seen as protecting family dignity.
जो महिलाएं इस परंपरा का पालन करती थीं, उन्हें सम्माननीय माना जाता था और उन्हें परिवार की गरिमा की रक्षा करने वाली समझा जाता था।
- However, in the early 1970s, the government banned the practice as it posed social hindrances, particularly for women seeking employment in cities.
हालांकि, 1970 के दशक की शुरुआत में, सरकार ने इस प्रथा पर प्रतिबंध लगा दिया क्योंकि यह सामाजिक बाधाएं पैदा कर रही थी, विशेष रूप से नौकरी की तलाश में शहरों जाने वाली महिलाओं के लिए।



- Nowadays, not many **Apatanis** are seen using **nose plugs** and **tattoos**.
आजकल, बहुत कम अपातानी लोग नाक के प्लग और टैटू का उपयोग करते दिखाई देते हैं।
- Most are **older women** who consider the **tradition** an **integral part of being Apatani**.
ज्यादातर बुजुर्ग महिलाएं हैं जो इस परंपरा को अपातानी होने का अभिन्न हिस्सा मानती हैं।
- They remain **proud of their identity**.
वे अपनी पहचान पर गर्व महसूस करती हैं।

BUDAPEST

Hungary police ban Pride parade amid LGBTQ crackdown by Orban



REUTERS

GSI

Hungarian police banned a Pride march set for next month but organisers insisted they would press ahead with holding the event. It came after Prime Minister Viktor Orban's government, which is pursuing a crackdown on LGBTQ rights, banned Budapest Pride in June — only for record numbers to defy the move. AFP



BELGRADE

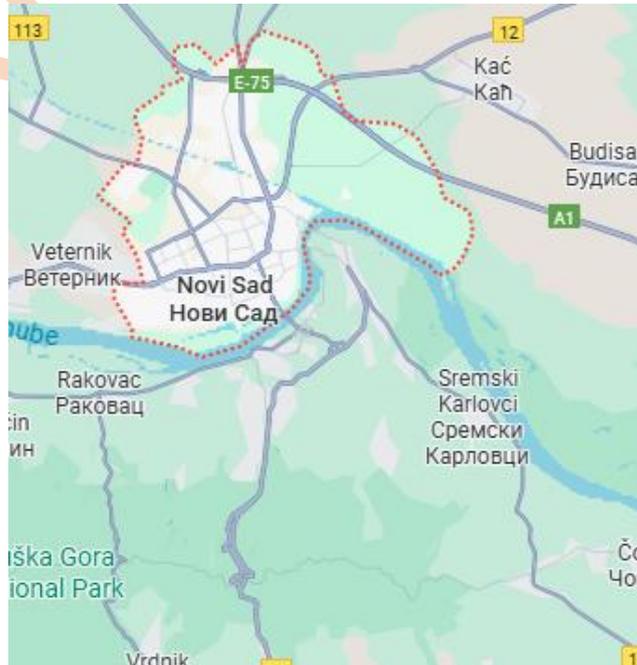
At least 42 detained following Serbia anti-government protest



AP

GSI

Forty-two people were detained at an anti-government protest in the Serbian city of Novi Sad where police fired tear gas to disperse the crowd. Several thousand rallied in Novi Sad on Friday seeking early polls in the latest in a series of student-led protests sparked by the fatal collapse of the city's train station roof last November. AFP





Question Corner

Blood moon

GS I: Geography

Why is a blood moon called so?

Sky gazers in India and in other parts of the world will be able to witness a blood moon on September 7 during a total lunar eclipse. The moon will take on a dark red-copper hue. This is the result of a physical effect called Rayleigh scattering. During a total lunar eclipse, the earth comes between the sun and the moon, blocking direct sunlight from striking the lunar surface. However, not all sunlight is blocked. Only the bluer light is filtered out; the redder light is scattered by the earth's atmosphere, giving the moon its striking

colour. This phenomenon is called Rayleigh scattering. When light interacts with particles smaller than its wavelength, the intensity of the scattered light is inversely proportional to its wavelength. This is why earthsky appears blue: it has the shortest wavelength in visible light. During a blood moon, however, the bluer light is absorbed by the earth's atmosphere while the redder light is refracted towards the moon. The precise hue depends on dust and smoke levels in the atmosphere.

Readers may send their questions / answers to questioncorner@thehindu.co.in

Blood moon रक्त चंद्रमा

- Sky gazers in **India** and in other parts of the world will be able to witness a **blood moon** on **September 7** during a **total lunar eclipse**.

भारत और दुनिया के अन्य हिस्सों में आकाश निहारक 7 सितंबर को पूर्ण चंद्र ग्रहण के दौरान रक्त चंद्रमा देख सकेंगे।

- The moon will take on a **dark red-copper hue**.

चंद्रमा गहरे लाल-तांबे के रंग का हो जाएगा।

- This is the result of a physical effect called **Rayleigh scattering**.

यह एक भौतिक प्रभाव का परिणाम है जिसे रेले स्कैटरिंग कहा जाता है।

- Duri ng a **total**



lunar eclipse, the **earth** comes between the **sun** and the **moon**, blocking direct **sunlight** from striking the lunar surface.

पूर्ण चंद्र ग्रहण के दौरान, **पृथ्वी सूर्य** और **चंद्रमा** के बीच आ जाती है, जिससे **सूर्य का प्रकाश** सीधे चंद्रमा की सतह तक नहीं पहुंच पाता।

- However, not all **sunlight** is blocked.
हालांकि, सभी **सूर्य का प्रकाश** अवरुद्ध नहीं होता।
- Only the **bluer light** is filtered out; the **redder light** is scattered by the **earth's atmosphere**, giving the moon its striking colour.
केवल **नीली रोशनी** को फ़िल्टर किया जाता है; जबकि **लाल रोशनी** **पृथ्वी के वायुमंडल** द्वारा बिखेर दी जाती है, जिससे चंद्रमा को उसका अद्भुत रंग मिलता है।
- This phenomenon is called **Rayleigh scattering**.
इस घटना को **रेले स्कैटरिंग** कहा जाता है।
- When **light** interacts with particles smaller than its **wavelength**, the **intensity** of the scattered light is **inversely proportional** to its **wavelength**.
जब **प्रकाश** उन कणों के साथ संपर्क करता है जो उसकी **तरंगदैर्घ्य** से छोटे होते हैं, तो बिखरी हुई रोशनी की तीव्रता उसकी **तरंगदैर्घ्य के व्युत्क्रमानुपाती** होती है।
- This is why the earth **sky** appears **blue**: it has the **shortest wavelength** in **visible light**.
इसी कारण **पृथ्वी का आकाश नीला** दिखाई देता है: इसमें **दृश्यमान प्रकाश** की **सबसे छोटी तरंगदैर्घ्य** होती है।
- During a **blood moon**, however, the **bluer light** is absorbed by the **earth's atmosphere** while the **redder light** is refracted towards the **moon**.
हालांकि, **रक्त चंद्रमा** के दौरान, **नीली रोशनी** **पृथ्वी के वायुमंडल** द्वारा अवशोषित हो जाती है जबकि **लाल रोशनी** चंद्रमा की ओर अपवर्तित होती है।
- The **precise hue** depends on **dust and smoke levels** in the **atmosphere**.
सटीक रंग वायुमंडल में **धूल और धुएं के स्तर** पर निर्भर करता है।

TOPICS COVERED (GS Paper II: Polity, Governance, And International Relations)

1. **Modi hails Trump's remarks on 'special' ties**
मोदी ने 'विशेष' संबंधों पर ट्रम्प के बयान की सराहना की
2. **How much is spent on children's education in India?**
भारत में बच्चों की शिक्षा पर कितना खर्च किया जाता है?
3. **Is a shift underway in India's foreign policy?**
क्या भारत की विदेश नीति में बदलाव हो रहा है?
4. **A flashpoint in the Palk Strait**
पाक जलसंधि में एक विवादास्पद मुद्दा



Modi hails Trump's remarks on 'special' ties

PM says he 'deeply appreciates and reciprocates' Trump's positive assessment of India-U.S. relations

The two leaders have not spoken directly since a June 17 call, after which trade talks broke down

External Affairs Minister says India 'remains engaged' with the U.S. ahead of UNGA session

CS II: India-U.S.
Subhasini Haidar
NEW DELHI

Prime Minister Narendra Modi said on Saturday that India and the U.S. had a "very positive and forward-looking" relationship, his first such statement since ties between the two countries nosedived over trade, tariffs, and Operation Sindoor.

Quoting remarks by U.S. President Donald Trump, who said on Friday that India and the U.S. had a "special relationship", and praised Mr. Modi and their friendship, the Prime Minister said on X that he "deeply appreciated and fully reciprocated" the comments.

Significantly, the two leaders, who met warmly in February shortly after Mr. Trump was sworn-in, have not spoken directly to each other since a telephone call on June 17, after which India-U.S. trade talks broke down and the

U.S. declared 25% tariffs on Indian goods, along with a 25% penalty for India's purchase of Russian oil. External Affairs Minister S. Jaishankar, who is scheduled to travel to the U.S. for the fourth time this year, for the United Nations General Assembly (UNGA), confirmed that India "remains engaged" with the U.S.

Mr. Trump's comments, in a 90-minute press conference on a range of issues, came a day after he had said on social media that the U.S. had "lost India and Russia to deepest, darkest China", a post that he backtracked on.

"I don't think we have [lost India]," Mr. Trump said in response to a question about the post.

'Enormous importance'
"I've been very disappointed that India would be buying so much oil from Russia, and I let them know that we put a very big tariff on India, 50% tariff, very



high tariff." When asked whether he was ready to reset ties with India, Mr. Trump said he would "always be friends with [Mr.] Modi" and called him a "great Prime Minister".

"I just don't like what he's doing at this particular moment, but India and the United States have a special relationship," he said, referring to India's imports of Russian oil, and added, "There's nothing to worry about... we just have mo-

ments [of disagreements] on occasion."

A few hours later, Mr. Modi responded. "I deeply appreciate and fully reciprocate President Trump's sentiments and positive assessment of our ties," Mr. Modi said on X, adding that "India and the U.S. have a very positive and forward-looking Comprehensive and Global Strategic Partnership."

When asked about the comments, Mr. Jaishankar

PM to skip key UNGA session later this month

UNITED NATIONS
Prime Minister Narendra Modi will not address the General Debate at the annual high-level session of the United Nations General Assembly from September 23 to 29. External Affairs Minister S. Jaishankar will address the session on September 27. » PAGE 3

said that Prime Minister Modi and President Trump have a "good personal equation" and that Mr. Modi attaches "enormous importance" to the relationship. "The point is that we remain engaged with the U.S., and at this time, I can't say more than that," he added.

UNGA session
The next steps by both Delhi and Washington will be watched closely for signs of

a truce after a team of U.S. negotiators, due to visit Delhi in August-end called off the visit.

Mr. Jaishankar is scheduled to travel to the U.S. to represent India at the UNGA on September 27, and it is unclear whether he will travel as he usually does to Washington as well and hold bilateral talks on breaking the impasse between the two sides. All eyes will be on whether Mr. Jaishankar and his counterparts can agree on a date for the Quad Summit due to be held in India this year, which Mr. Trump is expected to attend.

On Friday, the U.S. President signed an executive order offering to zero out tariffs on a number of goods for countries that the U.S. has already signed trade agreements, and out-looked concessions for future trade agreements, without specifically mentioning India.

Mr. Trump has praised India and Mr. Modi in the

past few months on a number of occasions, while also criticising India for high tariffs, Russian oil imports, and claiming credit for mediating the ceasefire with Pakistan in May.

First time
However, this is the first time Mr. Modi has responded publicly, indicating the possibility of a thaw or at least a pause in hostilities in the ties. In the past week, tensions have grown over comments by Trump administration officials, including trade advisor Peter Navarro - who called Prime Minister Modi's meeting with Russian and Chinese leaders a "shame", and called the Ukraine conflict "Modi's war" - and Commerce Secretary Howard Lutnick, who said India would "have to say sorry" and compromise in order to return to the table for talks.

'NO DEAL ON AGRI IMPORTS'
» PAGE 3

Modi hails Trump's remarks on 'special' ties

मोदी ने 'विशेष' संबंधों पर ट्रम्प के बयान की सराहना की

- PM says he "deeply appreciates and reciprocates" Trump's positive assessment of India-U.S. relations
- प्रधानमंत्री ने कहा कि वह ट्रम्प के सकारात्मक मूल्यांकन को "गहराई से सराहते हैं और पूरी तरह उत्तर देते हैं" भारत-अमेरिका संबंधों पर
- The two leaders have not spoken directly since a **June 17 call**, after which **trade talks** broke down
- दो नेताओं ने **17 जून की कॉल** के बाद सीधे बातचीत नहीं की, जिसके बाद **व्यापार वार्ता** विफल हो गई
- **External Affairs Minister** says India "remains engaged" with the **U.S.** ahead of **UNGA session**
- **विदेश मंत्री** ने कहा कि भारत **संयुक्त राष्ट्र महासभा (UNGA)** सत्र से पहले **अमेरिका** के साथ "सक्रिय रूप से जुड़ा हुआ है"
- **Prime Minister Narendra Modi** said on Saturday that **India and the U.S.** had a "very positive and forward-looking" relationship, his first such statement since ties between the two countries nosedived over **trade, tariffs, and Operation Sindoor**
- **प्रधानमंत्री नरेंद्र मोदी** ने शनिवार को कहा कि **भारत और अमेरिका** के बीच संबंध "बहुत सकारात्मक और भविष्य-उन्मुख" हैं, यह उनका पहला बयान है जब से दोनों देशों के बीच **व्यापार, शुल्क और ऑपरेशन सिंदूर** के कारण संबंध खराब हुए
- Quoting remarks by **U.S. President Donald Trump**, who said on Friday that **India and the U.S.** had a "special relationship", and praised **Modi** and their friendship, the **Prime Minister** said on X that he "deeply appreciated and fully reciprocated" the comments
- **अमेरिका के राष्ट्रपति डोनाल्ड ट्रम्प** के बयान का हवाला देते हुए, जिन्होंने शुक्रवार को कहा कि **भारत और अमेरिका** का "विशेष संबंध" है और **मोदी** और उनकी मित्रता की प्रशंसा की, **प्रधानमंत्री** ने X पर कहा कि उन्होंने "गहराई से सराहा और पूरी तरह उत्तर दिया"
- Significantly, the two leaders, who met warmly in **February** shortly after **Trump** was sworn-in, have not spoken directly to each other since a **telephone call on June 17**, after which **India-**



U.S. trade talks broke down and the U.S. declared 25% tariffs on Indian goods, along with a 25% penalty for India's purchase of Russian oil

- महत्वपूर्ण रूप से, दो नेता, जिन्होंने फरवरी में ट्रम्प के शपथ ग्रहण के तुरंत बाद गर्मजोशी से मुलाकात की थी, ने 17 जून की टेलीफोन कॉल के बाद सीधे बातचीत नहीं की, जिसके बाद भारत-अमेरिका व्यापार वार्ता विफल हो गई और अमेरिका ने भारतीय वस्तुओं पर 25% शुल्क और रूसी तेल की खरीद पर 25% जुर्माना लगाया
- External Affairs Minister S. Jaishankar, who is scheduled to travel to the U.S. for the fourth time this year, for the UNGA, confirmed that India "remains engaged" with the U.S.
- विदेश मंत्री एस. जयशंकर, जो इस साल चौथी बार संयुक्त राज्य अमेरिका जाने वाले हैं, UNGA के लिए, ने पुष्टि की कि भारत अमेरिका के साथ "सक्रिय रूप से जुड़ा हुआ है"
- Trump's comments, in a 90-minute press conference on a range of issues, came a day after he had said on social media that the U.S. had "lost India and Russia to deepest, darkest China", a post that he backtracked on
- ट्रम्प के बयान, एक 90 मिनट की प्रेस कॉन्फ्रेंस में कई मुद्दों पर, एक दिन बाद आए जब उन्होंने सोशल मीडिया पर कहा कि अमेरिका ने भारत और रूस को गहरे, अंधेरे चीन को खो दिया, एक पोस्ट जिसे उन्होंने पीछे हटाया
- "I don't think we have [lost India]," Trump said in response to a question about the post
- "मुझे नहीं लगता कि हमने [भारत खो दिया]," ट्रम्प ने पोस्ट के बारे में सवाल के जवाब में कहा
- 'Enormous importance'
- 'विशाल महत्व'
- "I've been very disappointed that India would be buying so much oil from Russia, and I let them know that we put a very big tariff on India, 50% tariff, very high tariff." When asked whether he was ready to reset ties with India, Trump said he would "always be friends with [Modi]" and called him a "great Prime Minister"
- "मैं बहुत निराश था कि भारत इतना तेल रूस से खरीद रहा है, और मैंने उन्हें बताया कि हमने भारत पर बहुत बड़ा शुल्क, 50% शुल्क, बहुत उच्च शुल्क लगाया।" जब उनसे पूछा गया कि क्या वे भारत के साथ संबंधों को फिर से सेट करने के लिए तैयार हैं, ट्रम्प ने कहा कि वह हमेशा [मोदी] के दोस्त रहेंगे और उन्हें "महान प्रधानमंत्री" कहा
- "I just don't like what he's doing at this particular moment, but India and the United States have a special relationship," he said, referring to India's imports of Russian oil, and added, "There's nothing to worry about... we just have..."
- "मुझे सिर्फ यह पसंद नहीं है कि वह इस विशेष क्षण में क्या कर रहे हैं, लेकिन भारत और अमेरिका का विशेष संबंध है," उन्होंने कहा, भारत के रूसी तेल आयात का उल्लेख करते हुए, और जोड़ा, "चिंता करने की कोई बात नहीं है... हमने बस..."
- said that Prime Minister Modi and President Trump have a "good personal equation" and that Modi attaches "enormous importance" to the relationship. "The point is that we remain engaged with the U.S., and at this time, I can't say more than that," he added
- कहा कि प्रधानमंत्री मोदी और राष्ट्रपति ट्रम्प के बीच "अच्छा व्यक्तिगत तालमेल" है और मोदी इस संबंध को "विशाल महत्व" देते हैं। "मुद्दा यह है कि हम अमेरिका के साथ जुड़े हुए हैं, और इस समय मैं इससे अधिक नहीं कह सकता," उन्होंने जोड़ा
- UNGA session
- संयुक्त राष्ट्र महासभा (UNGA) सत्र
- The next steps by both Delhi and Washington will be watched closely for signs of a truce after a team of U.S. negotiators, due to visit Delhi in August-end called off the visit
- अगले कदमों को दोनों दिल्ली और वाशिंगटन द्वारा ध्यान से देखा जाएगा संधि के संकेतों के लिए, जब अमेरिकी वार्ताकारों की टीम, जो अगस्त के अंत में दिल्ली आने वाली थी, यात्रा रद्द कर दी गई
- Jaishankar is scheduled to travel to the U.S. to represent India at the UNGA on September 27, and it is unclear whether he will travel as he usually does to Washington as well and hold bilateral talks on breaking the impasse between the two sides
- जयशंकर निर्धारित हैं कि संयुक्त राज्य अमेरिका जाएँ भारत का प्रतिनिधित्व करने के लिए UNGA में 27 सितंबर को, और यह स्पष्ट नहीं है कि क्या वह आमतौर पर की तरह वाशिंगटन भी जाएंगे और दोनों पक्षों के बीच द्विपक्षीय वार्ता करेंगे
- All eyes will be on whether Jaishankar and his counterparts can agree on a date for the Quad Summit due to be held in India this year, which Trump is expected to attend



- सभी की नजरें इस बात पर होंगी कि क्या **जयशंकर** और उनके समकक्ष **Quad Summit** की तारीख पर सहमत हो सकते हैं, जो इस वर्ष **भारत** में आयोजित होने वाली है, जिसमें **ट्रम्प** के शामिल होने की उम्मीद है
- On Friday, the **U.S. President** signed an **executive order** offering to **zero out tariffs** on a number of goods for countries that the **U.S.** has already signed **trade agreements**, and outlooked concessions for **future trade agreements**, without specifically mentioning **India**
- शुक्रवार को, **अमेरिकी राष्ट्रपति** ने एक **कार्यकारी आदेश** पर हस्ताक्षर किए जिसमें उन देशों के लिए कई वस्तुओं पर **शुल्क को शून्य करने** की पेशकश की गई है जिनके साथ **अमेरिका** ने पहले से **व्यापार समझौते** किए हैं, और **भविष्य के व्यापार समझौतों** के लिए रियायतें रखें, बिना विशेष रूप से **भारत** का उल्लेख किए
- **Trump** has praised **India** and **Modi** in the past few months on a number of occasions, while also criticising **India** for **high tariffs**, **Russian oil imports**, and claiming credit for mediating the **ceasefire with Pakistan** in **May**
- पिछले कुछ महीनों में, **ट्रम्प** ने कई अवसरों पर **भारत** और **मोदी** की प्रशंसा की है, जबकि **भारत** की **उच्च शुल्क**, **रूसी तेल आयात** के लिए आलोचना भी की और **पाकिस्तान के साथ युद्धविराम** के मध्यस्थता का श्रेय लिया **मई** में
- **First time**
- **पहली बार**
- **However**

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How much is spent on children's education in India

What does a recent report by the National Sample Survey show? Why is there a divide between girls and boys?

SS II: Education
Priscilla Jebaraj

The story so far:

Despite a recent drop in the World Economic Forum's gender gap ranking partly due to the education category, India has made steady progress in recent year in terms of enrolling more girls in school, with government data showing that girls now make up 48% of the school population. In higher education, in fact, the gross enrolment ratio for women is slightly higher than that of men. However, data collected as part of the National Sample Survey earlier this summer show a more insidious gender gap that remains in education – the differing amounts of money that families spend on their sons as opposed to their daughters for their education.

What are the differences in expenditure?

The recent report on the Comprehensive Modular Survey on education, which collects nationwide data between April and June as part of the 80th round of the NSS, shows that the per-student expenditure on girls is lower than on boys during all stages of school education, from pre-primary to higher secondary, as well across the rural-urban divide. The survey covered 52,085 households in 2,384 villages and 1,982 urban blocks across the country, with education-related information collected for 57,742 students currently enrolled in school.

In States such as Tamil Nadu and Kerala, boys and girls go to government and private schools in almost equal ratios

In rural India, families spent ₹1.3 or 18% more on boys than girls in terms of course fees, textbooks, and stationery, uniforms and transportation to school. In urban

India, the per-student expenditure on girls was ₹2,791 less than on boys. In urban India, by the time students are in higher secondary school, there is almost 30% more being spent on education for boys than girls. When course fees alone are considered, the gap widens, with families paying on average 21.5% more on fees for boys than for girls across the country.

This prioritising of boys' education is also clear in the type of schools that Indian families choose for their children. About 58.4% of girls are enrolled in government schools, which are usually free of cost in terms of course fees, with only 29.5% of them having access to more expensive private school education. However, 34% of boys are enrolled in private unaided schools. The gap goes beyond the school classroom, and extends to private tuitions that many families consider essential for a quality education. Tuition classes now supplement school teaching at all stages of education, and overall, 26% of girls and 27.8% of boys are enrolled in such classes. When it comes to expenditure, however, the gap widens, especially in higher classes. By the higher secondary level, families are spending on average 22% more in terms of tuition fees on their boys in comparison to girls.

How does this vary by State?

States differ widely in terms of the gender gap in education. When it comes to enrolment of girls and boys in government schools versus private schools for instance, the biggest gaps can be seen in States/UTs such as Delhi, where almost 54% of boys go to government schools, compared to more than 65% of girls. On the other hand, almost 38.8% of boys go to more expensive private schools, compared to 26.6% of girls. Madhya Pradesh, Rajasthan, and Punjab also have gender gaps of more than 10 percentage points. In Gujarat, the gender gap is striking in urban areas, but narrower in rural areas. In States such as Tamil Nadu and Kerala, boys and girls go to government and private schools in almost equal ratios, while several northeastern States have flipped the script, sending more girls to private schools.

Expenditures are more nuanced, especially in the higher classes. In higher secondary education, for instance, families in Telangana, Tamil Nadu and West Bengal spend vastly more on boys than girls, though they spent more on girls at the secondary level. In Tamil Nadu, for instance, the average education expenditure on girls at the secondary level is ₹23,796 compared to ₹22,593 on boys. In higher secondary, however, the expenditure on boys in the State has shot up to ₹35,973, compared to just ₹19,412 for girls. Part of this can be attributed to girls dropping out at that stage, though subsidies for girl students could also account for some of the difference. States like Andhra Pradesh, Himachal Pradesh, and Kerala also spend more on higher secondary girls, especially in urban India, where data shows that transport costs become a major factor, with parents intent on safety of the girl.

Expenditure on private coaching also varied by State, especially at the higher secondary level. In Himachal Pradesh, for instance, there was a stark gap between the ₹9,813 spent per boy student in higher secondary school enrolled for private tuition in comparison to the ₹1,550 spent per girl. Bihar, Jharkhand, Rajasthan, and Tamil Nadu were among other States which showed significant gender gaps in this regard.

How much is spent on children's education in India?

भारत में बच्चों की शिक्षा पर कितना खर्च किया जाता है?

What does a recent report by the National Sample Survey show?

राष्ट्रीय नमूना सर्वेक्षण की हालिया रिपोर्ट क्या दिखाती है?

Why is there a divide between girls and boys?

लड़कियों और लड़कों के बीच विभाजन क्यों है?

• Despite a recent

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drop in the **World Economic Forum's gender gap rankings**, partly due to the education category, India has made steady progress in recent years in terms of enrolling more girls in school, with government data showing that girls now make up **48% of the school population**.

हाल ही में **विश्व आर्थिक मंच की लैंगिक अंतर रैंकिंग** में गिरावट के बावजूद, जो आंशिक रूप से शिक्षा श्रेणी के कारण है, भारत ने हाल के वर्षों में स्कूलों में अधिक लड़कियों के नामांकन के मामले में स्थिर प्रगति की है, सरकारी आंकड़ों से पता चलता है कि अब लड़कियां **स्कूल जनसंख्या का 48%** हैं।

- In **higher education**, in fact, the **gross enrolment ratio for women** is slightly higher than that of men.

वास्तव में, **उच्च शिक्षा में महिलाओं का सकल नामांकन अनुपात** पुरुषों से थोड़ा अधिक है।

- However, data collected as part of the **National Sample Survey** earlier this summer show a more insidious gender gap that remains in education — the differing amounts of money that families spend on their sons as opposed to their daughters for their education.

हालांकि, इस गर्मी की शुरुआत में **राष्ट्रीय नमूना सर्वेक्षण** के हिस्से के रूप में एकत्र किए गए आंकड़े शिक्षा में एक और गहरा लैंगिक अंतर दिखाते हैं — वह विभिन्न राशि जो परिवार अपने बेटों की शिक्षा पर खर्च करते हैं जबकि बेटियों पर कम खर्च करते हैं।

What are the differences in expenditure?

व्यय में अंतर क्या हैं?

- The recent report on the **Comprehensive Modular Survey on education**, which collected nationwide data between **April and June** as part of the **80th round of the NSS**, shows that the **per-student expenditure on girls** is lower than on boys during all stages of school education, from **pre-primary to higher secondary**, as well as across the **rural-urban divide**.
शिक्षा पर व्यापक मॉड्यूलर सर्वेक्षण की हालिया रिपोर्ट, जिसने **अप्रैल और जून** के बीच **राष्ट्रीय नमूना सर्वेक्षण (NSS) के 80वें दौर** के हिस्से के रूप में देशव्यापी डेटा एकत्र किया, दिखाती है कि **लड़कियों पर प्रति छात्र व्यय** स्कूल शिक्षा के सभी चरणों में **लड़कों से कम** है, **पूर्व-प्राथमिक से उच्च माध्यमिक** तक और **ग्रामीण-शहरी विभाजन** में भी।
- The survey covered **52,085 households** in **2,384 villages** and **1,982 urban blocks** across the country, with education-related information collected for **57,742 students** currently enrolled in school.
सर्वेक्षण में देशभर के **2,384 गांवों** और **1,982 शहरी ब्लॉकों** में **52,085 परिवारों** को शामिल किया गया, जिसमें वर्तमान में स्कूल में नामांकित **57,742 छात्रों** की शिक्षा-संबंधी जानकारी एकत्र की गई।
- In **rural India**, families spent **₹1,373 or 18% more** on boys than girls in terms of **course fees, textbooks, stationery, uniforms, and transportation** to school.
ग्रामीण भारत में, परिवारों ने **पाठ्यक्रम शुल्क, पाठ्यपुस्तकें, स्टेशनरी, यूनिफॉर्म और परिवहन** पर लड़कियों की तुलना में लड़कों पर **₹1,373 या 18% अधिक** खर्च किया।
- In **urban India**, the **per-student expenditure on girls** was **₹2,791 less** than on boys.
शहरी भारत में, **लड़कियों पर प्रति छात्र व्यय** लड़कों से **₹2,791 कम** था।
- In urban India, by the time students are in **higher secondary school**, there is almost **30% more** being spent on education for boys than girls.
शहरी भारत में, जब छात्र **उच्च माध्यमिक विद्यालय** में होते हैं, तो लड़कों की शिक्षा पर **लगभग 30% अधिक** खर्च किया जाता है।
- When **course fees alone** are considered, the gap widens, with families paying on average **21.5% more** on fees for boys than for girls across the country.
जब केवल **पाठ्यक्रम शुल्क** पर विचार किया जाता है, तो अंतर बढ़ जाता है, जिसमें परिवार पूरे देश में लड़कियों की तुलना में लड़कों के शुल्क पर औसतन **21.5% अधिक** भुगतान करते हैं।
- This prioritising of **boys' education** is also clear in the **type of schools** that Indian families choose for their children.
लड़कों की शिक्षा को प्राथमिकता देने का यह रुझान स्पष्ट रूप से **स्कूलों के प्रकार** में भी दिखता है जिन्हें भारतीय परिवार अपने बच्चों के लिए चुनते हैं।
- About **58.4% of girls** are enrolled in **government schools**, which are usually free of cost in terms of **course fees**, with only **29.5%** of them having access to more expensive **private school education**.



लगभग **58.4%** लड़कियां सरकारी स्कूलों में नामांकित हैं, जो आमतौर पर **पाठ्यक्रम शुल्क** के मामले में निःशुल्क होते हैं, जबकि केवल **29.5%** लड़कियों को महंगी **निजी स्कूल शिक्षा** तक पहुंच प्राप्त है।

- However, **34% of boys** are enrolled in **private unaided schools**. हालांकि, **34% लड़के निजी गैर-सहायता प्राप्त स्कूलों** में नामांकित हैं।
- The gap goes beyond the **school classroom**, and extends to **private tuitions** that many families consider essential for a quality education. यह अंतर **स्कूल कक्षा** से आगे बढ़कर **निजी ट्यूशन** तक जाता है जिसे कई परिवार गुणवत्तापूर्ण शिक्षा के लिए आवश्यक मानते हैं।
- **Tuition classes** now supplement school teaching at all stages of education, and overall, **26% of girls** and **27.8% of boys** are enrolled in such classes. अब **ट्यूशन क्लासेस** शिक्षा के सभी चरणों में स्कूल शिक्षण का पूरक बन गई हैं, और कुल मिलाकर **26% लड़कियां** और **27.8% लड़के** ऐसी कक्षाओं में नामांकित हैं।
- When it comes to expenditure, however, the gap widens, especially in **higher classes**. हालांकि, व्यय की बात आने पर यह अंतर बढ़ जाता है, विशेषकर **उच्च कक्षाओं** में।
- By the **higher secondary level**, families are spending on average **22% more** in terms of **tuition fees** on their boys in comparison to girls. **उच्च माध्यमिक स्तर** तक आते-आते, परिवार लड़कियों की तुलना में लड़कों की **ट्यूशन फीस** पर औसतन **22% अधिक** खर्च कर रहे हैं।

How does this vary by State?

राज्यवार यह कैसे भिन्न होता है?

- States differ widely in terms of the **gender gap in education**. शिक्षा में लैंगिक अंतर के मामले में राज्यों में काफी भिन्नता है।
- When it comes to enrolment of girls and boys in **government schools versus private schools**, for instance, the biggest gaps can be seen in **States/UTs such as Delhi**, where almost **54% of boys** go to government schools, compared to more than **65% of girls**. जब **सरकारी स्कूलों बनाम निजी स्कूलों** में लड़कियों और लड़कों के नामांकन की बात आती है, तो सबसे बड़ा अंतर **दिल्ली जैसे राज्यों/केंद्र शासित प्रदेशों** में देखा जा सकता है, जहां लगभग **54% लड़के** सरकारी स्कूलों में जाते हैं जबकि **65% से अधिक लड़कियां** सरकारी स्कूलों में जाती हैं।
- On the other hand, almost **38.8% of boys** go to more expensive **private schools**, compared to **26.6% of girls**. दूसरी ओर, लगभग **38.8% लड़के** महंगे **निजी स्कूलों** में जाते हैं जबकि **26.6% लड़कियां** ही वहां जाती हैं।
- **Madhya Pradesh, Rajasthan, and Punjab** also have gender gaps of more than **10 percentage points**. **मध्य प्रदेश, राजस्थान और पंजाब** में भी **10 प्रतिशत अंक** से अधिक का लैंगिक अंतर है।
- In **Gujarat**, the gender gap is striking in **urban areas**, but narrower in **rural areas**. **गुजरात** में लैंगिक अंतर **शहरी क्षेत्रों** में उल्लेखनीय है लेकिन **ग्रामीण क्षेत्रों** में कम है।
- In **Tamil Nadu** and **Kerala**, boys and girls go to government and private schools in almost equal ratios. **तमिलनाडु और केरल** में लड़के और लड़कियां लगभग समान अनुपात में सरकारी और निजी स्कूलों में जाते हैं।
- Several **northeastern States** have flipped the script, sending **more girls to private schools**. कई **पूर्वोत्तर राज्यों** ने विपरीत रुझान दिखाया है, जहां **अधिक लड़कियों को निजी स्कूलों** में भेजा जा रहा है।
- Expenditures are more nuanced, especially in the **higher classes**. व्यय अधिक जटिल है, विशेषकर **उच्च कक्षाओं** में।
- In **higher secondary education**, for instance, families in **Telangana, Tamil Nadu, and West Bengal** spend vastly more on boys than girls, though they spend more on girls at the **secondary level**. **उच्च माध्यमिक शिक्षा** में, उदाहरण के लिए, **तेलंगाना, तमिलनाडु और पश्चिम बंगाल** के परिवार लड़कियों की तुलना में लड़कों पर काफी अधिक खर्च करते हैं, हालांकि **माध्यमिक स्तर** पर उन्होंने लड़कियों पर अधिक खर्च किया था।
- In **Tamil Nadu**, for instance, the **average education expenditure** on girls at the **secondary level** is **₹23,796** compared to **₹22,593** on boys.



उदाहरण के लिए, तमिलनाडु में माध्यमिक स्तर पर लड़कियों पर औसत शिक्षा व्यय ₹23,796 है जबकि लड़कों पर ₹22,593 है।

- In **higher secondary education**, however, the expenditure on boys in the State has shot up to **₹35,973**, compared to just **₹19,412** for girls.
हालांकि, उच्च माध्यमिक स्तर पर राज्य में लड़कों पर खर्च बढ़कर **₹35,973** हो गया है, जबकि लड़कियों पर केवल **₹19,412**।
- Part of this can be attributed to **girls dropping out** at that stage, though **subsidies for girl students** could also account for some of the difference.
इसका कुछ कारण उस चरण पर लड़कियों के पढ़ाई छोड़ने को माना जा सकता है, हालांकि लड़कियों के लिए सब्सिडी भी कुछ अंतर को समझा सकती है।
- **Andhra Pradesh, Himachal Pradesh, and Kerala** also spend more on **higher secondary girls**, especially in **urban India**, where data shows that **transport costs** become a major factor, with parents intent on safety of the girl.
आंध्र प्रदेश, हिमाचल प्रदेश और केरल भी उच्च माध्यमिक लड़कियों पर अधिक खर्च करते हैं, खासकर शहरी भारत में, जहां आंकड़े दिखाते हैं कि परिवहन लागत एक प्रमुख कारक बन जाती है और माता-पिता लड़कियों की सुरक्षा पर जोर देते हैं।
- **Expenditure on private coaching** also varied by State, especially at the **higher secondary level**.
निजी कोचिंग पर व्यय भी राज्यवार भिन्न था, विशेषकर उच्च माध्यमिक स्तर पर।
- In **Himachal Pradesh**, for instance, there was a stark gap between the **₹9,813 spent per boy student** in higher secondary school enrolled for private tuition in comparison to the **₹1,550 spent per girl**.
उदाहरण के लिए, हिमाचल प्रदेश में, उच्च माध्यमिक स्कूल में निजी ट्यूशन के लिए नामांकित प्रति लड़के पर **₹9,813** खर्च किया गया, जबकि प्रति लड़की पर केवल **₹1,550** खर्च किया गया।
- **Bihar, Jharkhand, Rajasthan, and Tamil Nadu** were among other States which showed significant gender gaps in this regard.
बिहार, झारखंड, राजस्थान और तमिलनाडु उन अन्य राज्यों में शामिल हैं जिन्होंने इस संदर्भ में महत्वपूर्ण लैंगिक अंतर दिखाया।



Is a shift underway in India's foreign policy?

How productive was the Shanghai Cooperation Organisation summit? Did a meeting between China, Russia and India at Tianjin signal a change in relations? Did U.S. moves on tariffs and sanctions prompt this? What are the leaders saying?

GS II: India's Foreign policy
Sunasin Haidar

The story so far:

P rime Minister Narendra Modi began the week in Tianjin, with a show of camaraderie with Chinese President Xi Jinping and Russian President Vladimir Putin on the sidelines of the Shanghai Cooperation Organisation (SCO) summit on September 1. A photograph of the three leaders together made headlines around the world. It also seemingly irked U.S. President Donald Trump, prompting a series of sarcastic statements, even as the U.S. doubled down on 50% tariffs, sanctions on India's import of Russian oil, and asking the European Union to do the same. By the end of the week, however, Mr. Modi and Mr. Trump appeared conciliatory.

What happened in Tianjin?

The week saw a series of high-level summits seen as a projection of power by China, beginning with the 10-nation SCO summit in Tianjin, where several other leaders including from Turkey, Nepal, Maldives, Azerbaijan, Armenia, Indonesia and Malaysia were invited. From there, the action moved to Beijing, where Mr. Xi led Mr. Putin and dozens of other leaders including North Korea's Kim Jong Un to a

India-U.S. relations have been impacted by months of tension, but official exchanges and military exercises have not stopped

massive military parade commemorating 80 years since the end of the Second World War. The statements released included a number of counter-West elements, with Mr. Xi promoting a "Global Governance Initiative" and Mr. Modi pitching for a "civilisational dialogue" between SCO countries. The SCO declaration criticised "coercive, unilateral" economic measures, believed to be aimed at U.S. tariffs and European sanctions. During a photo-shoot for the SCO meet, Prime Minister Modi was seen purposefully leading President Putin down the red carpet to where President Xi was standing. A day before that, Mr. Xi and Mr. Modi held bilateral talks that had been cordial and possibly paved the way for the tri-leader photo.

What happened at the bilateral meeting?

This was Mr. Modi's first visit to China since 2018, and his first meeting with President Xi not in a third country since the military standoff and Galwan clashes in 2020, where both sides agreed to normalise ties. China appeared conciliatory, with Mr. Xi referring to India and China as "partners not rivals", while India appears to have climbed down from an insistence that the LAC situation be normalised before a resumption of ties in other spheres. They agreed to let the border situation be discussed between Special Representatives Chinese Foreign Minister Wang Yi and National Security Adviser Ajit Doval. Besides revival of flights, visa facilitation and the Kailash Manasarovar Yatra, they agreed to resolve the trade issues between them.

How did the U.S. view the meetings?

In Washington, the photograph of the Tianjin "troika", as well as subsequent images of the leaders of Russia, China, North Korea, Central Asian states, Iran, Pakistan and others, were seen as a challenge to the Western order, as well as proof that India had now "switched sides".

On social media, Mr. Trump posted a photo from the SCO summit saying that it looked like the U.S. had "lost India and Russia to deepest, darkest, China". The White House Trade Adviser Peter Navarro, seen as one of the officials driving tariffs against India, said it was a "shame" that

India as a democracy was getting closer to Russia and China. There were a number of other comments criticising the Modi government, including calling the Ukraine conflict "Modi's war", which the Ministry of External Affairs rejected as "inaccurate and misleading". India will also participate in a BRICS online summit chaired by Brazil on September 8 to discuss a common response to the U.S. tariffs, which may send up more red flags.

Delhi-Washington ties have been fraught over many issues, including visa, immigration and trade policies, and Mr. Trump's repeated assertions of mediating the ceasefire in Operation Sindoor. But amid the tension, came yet another turnaround. Mr. Trump on Friday said that India and the U.S. have a "special relationship" and that he would "always be great friends with PM Modi". Mr. Modi, who had not responded to any of the statements thus far, welcomed them and said he shared Mr. Trump's "positive assessment" of the partnership.

What lies ahead?

While many foreign policy observers may have faced whiplash from the perception that Indian policy had shifted from the "west to the east" and possibly back to the west, the shifts are less perceptible if you consider India's decades-old policy of strategic autonomy and balance. The visit to China for the SCO had been expected for months, after the Xi-Modi meeting in Kazan on the sidelines of the BRICS summit in October 2024 had restarted ties. While India had put SCO on the backburner for the past two years and PM Modi skipped the Summit in Astana last year, the visit to China was considered important. In that sense, the Modi-Xi meeting was simply an attempt to normalise ties after years of serious tensions, and the Modi-Xi-Putin chat, would have been more significant if followed by a revival of formal Russia-India-China talks.

India-U.S. relations have no doubt been impacted by months of tensions on a range of issues, but official exchanges and military exercises have not stopped. Much will depend on whether the U.S. and India can find a compromise over demands to cancel Russian oil imports or for India to open its agricultural and dairy sectors, and whether the U.S. reconsiders its 50% tariff on India. With Mr. Jaishankar headed to the U.S. for the UN General Assembly this month, talks about scheduling the Quad summit, where Mr. Trump is due to visit India later this year, will be closely watched.



A restructuring: PM Modi with Russian President Mr. Putin and China's President Mr. Xi ahead of the SCO summit in Tianjin, on September 1. REUTERS

Is a shift underway in India's foreign policy?

क्या भारत की विदेश नीति में बदलाव हो रहा है?

How productive was the Shanghai Cooperation Organisation summit?

शंघाई सहयोग संगठन शिखर सम्मेलन कितना उत्पादक था?

Did a meeting between China, Russia and India at Tianjin signal a change in relations?

क्या तियानजिन में चीन, रूस और भारत के बीच बैठक ने संबंधों में बदलाव का संकेत दिया?

Did U.S. moves on tariffs and sanctions prompt this?

क्या अमेरिका की टैरिफ और प्रतिबंधों की कार्रवाइयों ने इसे प्रेरित किया?

What are the leaders saying?

नेता क्या कह रहे हैं?



- Prime Minister **Narendra Modi** began the week in **Tianjin**, with a show of camaraderie with **Chinese President Xi Jinping** and **Russian President Vladimir Putin** on the sidelines of the **Shanghai Cooperation Organisation (SCO) summit** on **September 1**.
प्रधानमंत्री नरेंद्र मोदी ने सप्ताह की शुरुआत तियानजिन में की, जहां उन्होंने चीनी राष्ट्रपति शी जिनपिंग और रूसी राष्ट्रपति व्लादिमीर पुतिन के साथ शंघाई सहयोग संगठन (एससीओ) शिखर सम्मेलन के 1 सितंबर को हुए कार्यक्रम के इतर मित्रता का प्रदर्शन किया।
- A photograph of the three leaders together made headlines around the world.
तीनों नेताओं की एक साथ खिंची तस्वीर ने दुनिया भर में सुर्खियां बटोरी।
- It also seemingly irked **U.S. President Donald Trump**, prompting a series of sarcastic statements, even as the **U.S. doubled down on 50% tariffs**, sanctions on India's import of Russian oil, and asking the **European Union** to do the same.
इससे अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप भी नाराज दिखे, जिसके चलते उन्होंने कई तंज भरे बयान दिए, जबकि अमेरिका ने 50% टैरिफ, भारत के रूसी तेल आयात पर प्रतिबंध और यूरोपीय संघ से भी ऐसा करने का अनुरोध दोहराया।
- By the end of the week, however, Mr. Modi and Mr. Trump appeared conciliatory.
हालांकि सप्ताह के अंत तक, श्री मोदी और श्री ट्रंप सुलहपूर्ण दिखाई दिए।
- **What happened in Tianjin?**
तियानजिन में क्या हुआ?
- The week saw a series of **high-level summits** seen as a projection of power by **China**, beginning with the **10-nation SCO summit** in **Tianjin**, where several other leaders including from **Turkey, Nepal, Maldives, Azerbaijan, Armenia, Indonesia** and **Malaysia** were invited.
सप्ताह की शुरुआत चीन द्वारा अपनी शक्ति के प्रदर्शन के रूप में देखे गए उच्च स्तरीय शिखर सम्मेलनों की श्रृंखला से हुई, जिसकी शुरुआत 10-देशीय एससीओ शिखर सम्मेलन से तियानजिन में हुई, जहां तुर्की, नेपाल, मालदीव, अज़रबैजान, आर्मेनिया, इंडोनेशिया और मलेशिया सहित कई अन्य नेताओं को आमंत्रित किया गया था।
- From there, the action moved to **Beijing**, where **Mr. Xi** led **Mr. Putin** and dozens of other leaders including **North Korea's Kim Jong Un** to a massive **military parade** commemorating **80 years since the end of the Second World War**.
वहां से कार्रवाई बीजिंग चली गई, जहां श्री शी ने श्री पुतिन और उत्तर कोरिया के किम जोंग उन सहित दर्जनों अन्य नेताओं का नेतृत्व द्वितीय विश्व युद्ध की समाप्ति के 80 साल पूरे होने के उपलक्ष्य में आयोजित एक विशाल सैन्य परेड में किया।
- The statements released included a number of **counter-West elements**, with **Mr. Xi** promoting a "**Global Governance Initiative**" and **Mr. Modi** pitching for a "**civilisational dialogue**" between **SCO countries**.
जारी बयानों में कई पश्चिम-विरोधी तत्व शामिल थे, जहां श्री शी ने "ग्लोबल गवर्नेंस इनिशिएटिव" को बढ़ावा दिया और श्री मोदी ने एससीओ देशों के बीच "सभ्यतागत संवाद" की वकालत की।
- The **SCO declaration** criticised "**coercive, unilateral**" **economic measures**, believed to be aimed at **U.S. tariffs** and **European sanctions**.
एससीओ घोषणा पत्र ने "बलपूर्वक, एकतरफा" आर्थिक उपायों की आलोचना की, जो माना जाता है कि अमेरिकी टैरिफ और यूरोपीय प्रतिबंधों को लक्षित करते हैं।
- During a **photo-shoot** for the **SCO meet**, **Prime Minister Modi** was seen purposefully leading **President Putin** down the **red carpet** to where **President Xi** was standing.
एससीओ बैठक के दौरान फोटो-शूट में, प्रधानमंत्री मोदी को राष्ट्रपति पुतिन को रेड कार्पेट पर उस स्थान तक ले जाते देखा गया जहां राष्ट्रपति शी खड़े थे।
- A day before that, **Mr. Xi** and **Mr. Modi** held **bilateral talks** that had been cordial and possibly paved the way for the **tri-leader photo**.
उससे एक दिन पहले, श्री शी और श्री मोदी ने द्विपक्षीय वार्ता की, जो सौहार्दपूर्ण रही और संभवतः तीन-नेताओं की तस्वीर के लिए रास्ता तैयार किया।
- **What happened at the bilateral meeting?**
द्विपक्षीय बैठक में क्या हुआ?
- This was **Mr. Modi's first visit to China since 2018**, and his first meeting with **President Xi** not in a third country since the **military standoff** and **Galwan clashes** in **2020**, where both sides agreed to normalise ties.
यह श्री मोदी की 2018 के बाद चीन की पहली यात्रा थी, और राष्ट्रपति शी के साथ उनकी पहली बैठक थी



जो 2020 में सैन्य गतिरोध और गलवान झड़पों के बाद किसी तीसरे देश में नहीं हुई थी, जहां दोनों पक्षों ने संबंध सामान्य करने पर सहमति जताई थी।

- **China** appeared conciliatory, with **Mr. Xi** referring to **India and China** as “**partners not rivals**”, while **India** appears to have climbed down from an insistence that the **LAC situation** be normalised before a resumption of ties in other spheres.
चीन सुलह की ओर झुका दिखाई दिया, जहां श्री शी ने भारत और चीन को “प्रतिद्वंद्वी नहीं बल्कि साझेदार” कहा, जबकि भारत ऐसा प्रतीत होता है कि उसने यह शर्त छोड़ दी है कि अन्य क्षेत्रों में संबंधों को फिर से शुरू करने से पहले एलएसी की स्थिति सामान्य की जाए।
- They agreed to let the **border situation** be discussed between **Special Representatives Chinese Foreign Minister Wang Yi** and **National Security Adviser Ajit Doval**.
उन्होंने सहमति जताई कि सीमा स्थिति पर चर्चा विशेष प्रतिनिधियों चीनी विदेश मंत्री वांग यी और राष्ट्रीय सुरक्षा सलाहकार अजीत डोभाल के बीच होगी।
- Besides **revival of flights, visa facilitation** and the **Kailash Manasarovar Yatra**, they agreed to resolve the **trade issues** between them.
उड़ानों की बहाली, वीजा सुविधा और कैलाश मानसरोवर यात्रा के अलावा, उन्होंने आपसी व्यापार मुद्दों को हल करने पर सहमति जताई।
- **How did the U.S. view the meetings?**
अमेरिका ने इन बैठकों को कैसे देखा?
- In **Washington**, the photograph of the **Tianjin “troika”**, as well as subsequent images of the leaders of **Russia, China, North Korea, Central Asian states, Iran, Pakistan** and others, were seen as a **challenge to the Western order**, as well as proof that **India had now “switched sides”**.
वॉशिंगटन में, तियानजिन “त्रिमूर्ति” की तस्वीर और रूस, चीन, उत्तर कोरिया, मध्य एशियाई देशों, ईरान, पाकिस्तान आदि के नेताओं की बाद की तस्वीरों को पश्चिमी व्यवस्था के लिए चुनौती और इस बात का सबूत माना गया कि भारत अब “पक्ष बदल चुका” है।
- On **social media**, **Mr. Trump** posted a photo from the **SCO summit** saying that it looked like the **U.S. had “lost India and Russia to deepest, darkest, China”**.
सोशल मीडिया पर, श्री ट्रंप ने एससीओ शिखर सम्मेलन से एक तस्वीर पोस्ट करते हुए कहा कि ऐसा लग रहा था कि अमेरिका ने “भारत और रूस को गहरे, अंधेरे चीन” के हवाले कर दिया है।
- The **White House Trade Adviser Peter Navarro**, seen as one of the officials driving **tariffs against India**, said it was a “**shame**” that **India as a democracy** was getting closer to **Russia and China**.
व्हाइट हाउस ट्रेड एडवाइजर पीटर नवारो, जिन्हें भारत के खिलाफ टैरिफ लागू करने वाले अधिकारियों में से एक माना जाता है, ने कहा कि यह “शर्मनाक” है कि भारत एक लोकतंत्र के रूप में रूस और चीन के करीब जा रहा है।
- There were a number of other comments criticising the **Modi government**, including calling the **Ukraine conflict “Modi’s war”**, which the **Ministry of External Affairs** rejected as “**inaccurate and misleading**”.
मोदी सरकार की आलोचना करने वाली कई अन्य टिप्पणियां भी थीं, जिनमें यूक्रेन संघर्ष को “मोदी का युद्ध” कहा गया, जिसे विदेश मंत्रालय ने “गलत और भ्रामक” करार दिया।
- India will also participate in a **BRICS online summit** chaired by **Brazil** on **September 8** to discuss a **common response to the U.S. tariffs**, which may send up more **red flags**.
भारत 8 सितंबर को ब्राजील की अध्यक्षता में होने वाले ब्रिक्स ऑनलाइन शिखर सम्मेलन में भी भाग लेगा, जिसमें अमेरिकी टैरिफ के प्रति सामूहिक प्रतिक्रिया पर चर्चा की जाएगी, जो और अधिक चेतावनी संकेत दे सकता है।
- **Delhi-Washington ties** have been fraught over many issues, including **visa, immigration and trade policies**, and **Mr. Trump’s repeated assertions of mediating the ceasefire in Operation Sindoor**.
दिल्ली-वॉशिंगटन संबंध कई मुद्दों पर तनावपूर्ण रहे हैं, जिनमें वीजा, आव्रजन और व्यापार नीतियां, और ऑपरेशन सिंदूर में युद्धविराम पर मध्यस्थता के बारे में श्री ट्रंप के बार-बार के दावे शामिल हैं।
- But amid the tension, came yet another turnaround.
लेकिन तनाव के बीच, एक और मोड़ आया।
- **Mr. Trump** on **Friday** said that **India and the U.S.** have a “**special relationship**” and that he would “**always be great friends with PM Modi**”.



श्री ट्रंप ने शुक्रवार को कहा कि भारत और अमेरिका के बीच “विशेष संबंध” हैं और वह “हमेशा प्रधानमंत्री मोदी के अच्छे दोस्त रहेंगे”।

- Mr. Modi, who had not responded to any of the statements thus far, welcomed them and said he shared Mr. Trump’s “positive assessment” of the partnership.

श्री मोदी, जिन्होंने अब तक किसी भी बयान पर प्रतिक्रिया नहीं दी थी, ने उनका स्वागत किया और कहा कि वह श्री ट्रंप के “सकारात्मक आकलन” से सहमत हैं।

What lies ahead?

आगे क्या होगा?

- While many foreign policy observers may have faced whiplash from the perception that Indian policy had shifted from the “west to the east” and possibly back to the west, the shifts are less perceptible if you consider India’s decades-old policy of strategic autonomy and balance.

हालांकि कई विदेश नीति पर्यवेक्षकों को यह आभास हो सकता है कि भारतीय नीति “पश्चिम से पूर्व” और संभवतः वापस पश्चिम की ओर बदल गई है, लेकिन यदि आप भारत की दशकों पुरानी रणनीतिक स्वायत्तता और संतुलन की नीति को देखें, तो ये बदलाव कम स्पष्ट लगते हैं।

- The visit to China for the SCO had been expected for months, after the Xi-Modi meeting in Kazan on the sidelines of the BRICS summit in October 2024 had restarted ties.

एससीओ के लिए चीन की यात्रा की महीनों से उम्मीद थी, क्योंकि अक्टूबर 2024 में ब्रिक्स शिखर सम्मेलन के इतर कज़ान में हुई शी-मोदी बैठक ने संबंधों को फिर से शुरू कर दिया था।

- While India had put SCO on the backburner for the past two years and PM Modi skipped the Summit in Astana last year, the visit to China was considered important.

हालांकि भारत ने पिछले दो वर्षों से एससीओ को पिछले स्थान पर रखा था और प्रधानमंत्री मोदी ने पिछले वर्ष अस्ताना में हुए शिखर सम्मेलन में भाग नहीं लिया था, चीन की यात्रा को महत्वपूर्ण माना गया।

- In that sense, the Modi-Xi meeting was simply an attempt to normalise ties after years of serious tensions, and the Modi-Xi-Putin chat would have been more significant if followed by a revival of formal Russia-India-China talks.

उस दृष्टिकोण से, मोदी-शी बैठक केवल वर्षों के गंभीर तनावों के बाद संबंधों को सामान्य करने का प्रयास था, और मोदी-शी-पुतिन बातचीत तब अधिक महत्वपूर्ण होती यदि उसके बाद औपचारिक रूस-भारत-चीन वार्ताओं का पुनरुद्धार होता।

- India-U.S. relations have no doubt been impacted by months of tensions on a range of issues, but official exchanges and military exercises have not stopped.

भारत-अमेरिका संबंध निस्संदेह कई मुद्दों पर महीनों के तनाव से प्रभावित हुए हैं, लेकिन आधिकारिक आदान-प्रदान और सैन्य अभ्यास नहीं रुके हैं।

- Much will depend on whether the U.S. and India can find a compromise over demands to cancel Russian oil imports or for India to open its agricultural and dairy sectors, and whether the U.S. reconsiders its 50% tariff on India.

बहुत कुछ इस पर निर्भर करेगा कि क्या अमेरिका और भारत रूसी तेल आयात को रद्द करने की मांग या भारत के कृषि और डेयरी क्षेत्रों को खोलने पर समझौता कर सकते हैं, और क्या अमेरिका भारत पर अपने 50% टैरिफ पर पुनर्विचार करता है।

- With Mr. Jaishankar headed to the U.S. for the UN General Assembly this month, talks about scheduling the Quad summit, where Mr. Trump is due to visit India later this year, will be closely watched.

इस महीने श्री जयशंकर के संयुक्त राष्ट्र महासभा के लिए अमेरिका जाने के साथ, क्वाड शिखर सम्मेलन की समय-सारणी पर चर्चा, जहां श्री ट्रंप इस वर्ष के अंत में भारत की यात्रा करेंगे, पर कड़ी नजर रखी जाएगी।



A flashpoint in the Palk Strait

Katchatheevu

Half a century since New Delhi gave up its claim to the barren island and recognised Sri Lanka's sovereignty over it, politicians in India periodically rake up the issue, triggering tensions in ties between the friendly countries

GS II: India-Sri Lanka

Meera Srinivasan

Sri Lankan President Anura Kumara Dissanayake's recent visit to Katchatheevu, said to be the first by a head of state, drew attention on both sides of the Palk Strait.

Attired in smart casuals – his trademark double-pocket shirt – the 56-year-old leftist leader, elected to office a year ago, is seen on a naval boat, flanked by Fisheries Minister and Jaffna MP Ramalingam Chandrasekar and other officials. He smiles gently before setting foot on the tiny, uninhabited island, 33 nautical miles off the Jaffna peninsula, on September 1. Seated in the shade of palm trees, Mr. Dissanayake listens intently while a Naval officer describes the 1.15 sq. km outcrop, pointing to a map.

Walking around briskly with officials in tow, Mr. Dissanayake pays respects at the St. Anthony's Catholic Shrine, the only permanent structure there, before returning to Jaffna, where at a public meeting earlier that day he pledged to safeguard Sri Lankan territory, resisting any "external force". The symbolism of the visit, with the accompanying visuals and messaging played well in Sri Lanka, comes days after Tamil actor-politician Vijay's demand in a political rally that India must retrieve Katchatheevu from Sri Lanka. The government subsequently announced it is also exploring the tourism potential of Katchatheevu, by making it more accessible from nearby Delft island, one of Jaffna's off-track tourist destinations.

The competing claims made from India (Madras Presidency, specifically) and Ceylon to Katchatheevu date back to the 1920s, during British colonial times. The neighbours settled the matter some five decades later, through two bilateral agreements signed in 1974 and 1976, delineating an International Maritime Boundary Line, whereby Katchatheevu is firmly on the Sri Lankan side. In return, New Delhi got sovereign rights over Wadge Bank, located near Kanniyakumari, known



Sri Lanka's President Anura Kumara Dissanayake, centre, in Katchatheevu on September 1. SPECIAL ARRANGEMENT

for its rich resources.

Katchatheevu is a barren island, with no drinking water or sanitation. Every March, Sri Lanka waives visa controls to allow fishermen from India to worship along with their Sri Lankan counterparts at the St. Anthony's festival. Around the annual two-day event, mobile toilets and drinking water booths are put up for pilgrims.

Political calculation

Bizarrely, though, half a century since India gave up its claim to Katchatheevu and recognised Sri Lanka's sovereignty over it, politicians in India periodically rake up the issue. The political calculation driving the frequent call is the assumption that it could boost voter support if pitched as a solution to the enduring fisheries conflict affecting Tamil Nadu's fishermen, a sizeable electoral constituency.

The fact that the Congress and the Dravida Munnetra Kazhagam (DMK) were in power, respectively at the Centre and in Tamil Nadu, in the 1970s

has offered political ammunition to their rivals, especially on the eve of State polls next year. Ahead of general elections last year, Prime Minister Narendra Modi accused the Congress of "callosity giving away" the island to Sri Lanka. External Affairs Minister S. Jaishankar swiftly amplified this by blaming the two BJP rivals for compromising Indian fishermen's rights in the Palk Strait.

Both Dravidian parties [DMK and Anna Dravida Munnetra Kazhagam, or AIADMK], have demanded its retrieval. In 2008, former Chief Minister of Tamil Nadu Jayalalitha, as General Secretary of the AIADMK, petitioned the Supreme Court seeking a declaration that the 1974 and 1976 agreements were unconstitutional. Ahead of Prime Minister Modi's visit to Sri Lanka in April 2025, the Tamil Nadu Legislative Assembly unanimously adopted a resolution, urging the Union government to take steps to retrieve the Katchatheevu island. Subsequently, Chief Minister

M.K. Stalin said the island's retrieval was "the only permanent solution" to the issues faced by the fishermen in the State.

Everyone calling for the island's retrieval in India must know well that it is a far-fetched ask from a mostly friendly neighbour. In 2013, the Union government informed the Supreme Court that the question of gaining Katchatheevu from Sri Lanka did not arise, as "no territory belonging to India was ceded nor sovereignty relinquished since the area in question was in dispute and had never been demarcated". In 2014, then Attorney-General Mukul Rohatgi submitted before the Supreme Court that if India had to retrieve an island belonging to Sri Lanka, "we have to go to war". The factors that keep the issue alive, despite diplomatic and legal resolution, are chiefly political, and in fact to do with the political economy of a depleting catch in a narrow stretch of water.

Fishermen of south India and

northern Sri Lanka rely heavily on the resource-rich Palk Strait. However, with Tamil Nadu fishermen relentlessly resorting to bottom-trawling, a destructive fishing method that scoops out the seabed to maximise the catch and profits, this has severely affected the marine ecosystem. With the catch on the Indian side of the International Maritime Boundary Line diminishing over time, the Tamil Nadu fishing boats ventured into the Sri Lankan side, targeting a heavier net. Daily wage fishermen, working for wealthy boat owners in Tamil Nadu, periodically court arrest by the Sri Lankan Navy – over 230 arrests so far this year – a risk they take to secure their day's earnings.

Bottom-trawling

Tamil fishermen in northern Sri Lanka, still reeling from the impact of the civil war that ended 16 years ago, contend they have no real chance of rebuilding their destroyed livelihoods, unless their counterparts across the Palk Strait give up bottom-trawling – a practice banned in Sri Lanka.

In bilateral talks with fisher leaders through the years, or petitions to politicians in India and Sri Lanka, all they have been asking their fellow, Tamil-speaking brothers is that they stop the practice. In ministerial level talks between India and Sri Lanka in 2016, New Delhi acknowledged this and agreed to expedite the transition towards ending the practice of bottom trawling "at the earliest". But the practice continues.

Decades ago, fishermen from both sides used Katchatheevu as a resting point and a spot to dry out their nets. But in recent history, most arrests of Indian fishermen are made well past Katchatheevu, very close to Sri Lanka's northern shores. Policymakers on the Indian side know where the problem lies. And politicians know that Katchatheevu offers no real solution to it. But unwilling to confront a key electorate with a difficult question, they habitually invoke it to divert attention from their own failure to resolve the festering fisheries conflict.

THE GIST

▼ The competing claims made from India (Madras Presidency, specifically) and Ceylon to Katchatheevu date back to the 1920s, during British colonial times

▼ The neighbours settled the matter some five decades later, through two bilateral agreements signed in 1974 and 1976, delineating an International Maritime Boundary Line, whereby Katchatheevu is firmly on the Sri Lankan side

▼ In return, New Delhi got sovereign rights over Wadge Bank, located near Kanniyakumari, known for its rich resources

A flashpoint in the Palk Strait पाक जलसंधि में एक विवादास्पद मुद्दा

- Half a century since **New Delhi** gave up its claim to the **barren island** and recognised **Sri Lanka's sovereignty** over it, politicians in **India** periodically rake up the issue, triggering **tensions** in ties between the friendly countries
नई दिल्ली द्वारा सूनी द्वीप पर अपना दावा छोड़ने और उस पर श्रीलंका की संप्रभुता को मान्यता देने के पचास वर्ष बाद भी, भारत के राजनेता समय-समय पर इस मुद्दे को उठाते हैं, जिससे मैत्रीपूर्ण देशों के बीच तनाव उत्पन्न होता है
- **Sri Lankan President Anura Kumara Dissanayake's** recent visit to **Katchatheevu**, said to be the first by a **head of state**, drew attention on both sides of the **Palk Strait**
श्रीलंका के राष्ट्रपति अनुरा कुमारा डिसानायके की हालिया यात्रा कचथीवु द्वीप पर, जिसे किसी राष्ट्राध्यक्ष की पहली यात्रा कहा जाता है, ने पाक जलसंधि के दोनों ओर ध्यान आकर्षित किया
- Attired in smart casuals — his **trademark double-pocket shirt** — the 56-year-old **leftist leader**, elected to office a year ago, is seen on a **naval boat**, flanked by **Fisheries Minister** and **Jaffna MP Ramalingam Chandrasekar** and other officials
स्मार्ट कैजुअल्स में, अपनी ट्रेडमार्क डबल-पॉकेट शर्ट पहने हुए, 56 वर्षीय वामपंथी नेता, जिन्हें एक वर्ष पूर्व पद के लिए चुना गया था, एक नौसैनिक नाव पर देखे गए, जिनके साथ मत्स्य मंत्री और जाफना सांसद रामलिंगम चंद्रशेखर तथा अन्य अधिकारी थे
- He smiles gently before setting foot on the tiny, uninhabited island, **33 nautical miles off the Jaffna peninsula**, on **September 1**



वह 1 सितंबर को जाफना प्रायद्वीप से 33 समुद्री मील दूर छोटे, निर्जन द्वीप पर कदम रखने से पहले हल्की मुस्कान बिखेरते हैं

- Seated in the shade of **palm trees**, Mr. Dissanayake listens intently while a **Naval officer** describes the **1.15 sq. km outcrop**, pointing to a map
पाम पेड़ों की छाया में बैठे हुए, श्री डिसानायके ध्यानपूर्वक सुनते हैं जबकि एक नौसैनिक अधिकारी नक्शे की ओर इशारा करते हुए **1.15 वर्ग किलोमीटर के क्षेत्र** का वर्णन करते हैं
- Walking around briskly with officials in tow, Mr. Dissanayake pays respects at the **St. Anthony's Catholic Shrine**, the only permanent structure there, before returning to **Jaffna**, where at a public meeting earlier that day he pledged to **safeguard Sri Lankan territory**, resisting any **external force**
अधिकारियों के साथ तेज़ी से चलते हुए, श्री डिसानायके **सेंट एंथनी कैथोलिक मंदिर** में सम्मान प्रकट करते हैं, जो वहाँ की एकमात्र स्थायी संरचना है, और फिर **जाफना** लौटते हैं, जहाँ उस दिन पहले एक सार्वजनिक बैठक में उन्होंने किसी भी **बाहरी ताकत** का विरोध करते हुए **श्रीलंकाई क्षेत्र की रक्षा** का वचन दिया
- The symbolism of the visit, with the accompanying visuals and messaging played well in **Sri Lanka**, comes days after **Tamil actor-politician Vijay's demand** in a political rally that **India must retrieve Katchatheevu** from Sri Lanka
इस यात्रा का प्रतीकात्मक महत्व, उसके साथ जुड़ी तस्वीरों और संदेश, **श्रीलंका** में अच्छा प्रभाव डालते हैं, यह घटना तब हुई जब कुछ दिन पहले **तमिल अभिनेता-राजनीतिज्ञ विजय** ने एक राजनीतिक रैली में मांग की थी कि **भारत को श्रीलंका से कचचीवु वापस लेना चाहिए**
- The government subsequently announced it is also exploring the **tourism potential** of Katchatheevu, by making it more accessible from nearby **Delft island**, one of Jaffna's off-track **tourist destinations**
सरकार ने बाद में घोषणा की कि वह कचचीवु को पास के **डेलफ्ट द्वीप** से अधिक सुलभ बनाकर उसके **पर्यटन क्षमता** का भी पता लगा रही है, जो जाफना के प्रमुख **पर्यटन स्थलों** में से एक है
- The competing claims made from **India (Madras Presidency)** and **Ceylon** to Katchatheevu date back to the **1920s**, during **British colonial times**
कचचीवु पर **भारत (मद्रास प्रेसीडेंसी)** और **सीलोन** के बीच प्रतिस्पर्धी दावे **1920 के दशक** में **ब्रिटिश औपनिवेशिक काल** के दौरान शुरू हुए थे
- The neighbours settled the matter five decades later, through **two bilateral agreements signed in 1974 and 1976**, delineating an **International Maritime Boundary Line**, whereby Katchatheevu is firmly on the **Sri Lankan side**
पड़ोसी देशों ने यह मामला पांच दशक बाद **1974 और 1976 में हस्ताक्षरित दो द्विपक्षीय समझौतों** के माध्यम से सुलझाया, जिसमें एक **अंतरराष्ट्रीय समुद्री सीमा रेखा** खींची गई, जिसके तहत कचचीवु **श्रीलंका के पक्ष** में आ गया
- In return, **New Delhi** got **sovereign rights over Wadge Bank**, located near **Kanniyakumari**, known for its rich resources
इसके बदले, **नई दिल्ली** को **कन्याकुमारी** के पास स्थित **वेज बैंक** पर **संप्रभु अधिकार** मिले, जो अपने समृद्ध संसाधनों के लिए जाना जाता है
- Katchatheevu is a **barren island**, with no drinking water or sanitation
कचचीवु एक **सूना द्वीप** है, जहाँ पीने का पानी और स्वच्छता की कोई व्यवस्था नहीं है
- Every **March**, **Sri Lanka** waives visa controls to allow **fishermen from India** to worship along with their Sri Lankan counterparts at the **St. Anthony's festival**
हर साल **मार्च** में, **श्रीलंका** वीजा नियंत्रण हटाता है ताकि **भारत के मछुआरे** अपने श्रीलंकाई समकक्षों के साथ **सेंट एंथनी उत्सव** में पूजा कर सकें
- Around the annual two-day event, **mobile toilets** and **drinking water booths** are put up for pilgrims
वार्षिक दो-दिवसीय आयोजन के दौरान, तीर्थयात्रियों के लिए **मोबाइल शौचालय** और **पीने के पानी के बूथ** लगाए जाते हैं
- Bizarrely, though, half a century since **India** gave up its claim to **Katchatheevu** and recognised **Sri Lanka's sovereignty** over it, politicians in **India** periodically rake up the issue
अजीब बात यह है कि **भारत** द्वारा **कचचीवु** पर अपना दावा छोड़ने और उस पर **श्रीलंका की संप्रभुता** को मान्यता देने के **पचास साल** बाद भी, **भारत** के राजनेता समय-समय पर इस मुद्दे को उठाते हैं
- The political calculation driving the frequent call is the assumption that it could **boost voter support** if pitched as a solution to the **enduring fisheries conflict** affecting **Tamil Nadu's fishermen**, a sizeable **electoral constituency**



बार-बार उठाई जाने वाली इस मांग के पीछे राजनीतिक गणना यह है कि अगर इसे **तमिलनाडु के मछुआरों** को प्रभावित करने वाले **लंबे समय से चले आ रहे मत्स्य संघर्ष** के समाधान के रूप में प्रस्तुत किया जाए, तो यह **मतदाता समर्थन बढ़ा सकता है**, जो एक महत्वपूर्ण निर्वाचन क्षेत्र है

- The fact that the **Congress** and the **DMK** were in power, respectively at the **Centre** and in **Tamil Nadu**, in the **1970s** has offered political ammunition to their **rivals**, especially on the eve of **State polls next year**
यह तथ्य कि **1970 के दशक में कांग्रेस** और **DMK** क्रमशः **केंद्र** और **तमिलनाडु** में सत्ता में थे, ने उनके **विरोधियों** को राजनीतिक हथियार प्रदान किया है, खासकर अगले साल होने वाले **राज्य चुनावों** की पूर्व संध्या पर
- Ahead of **general elections last year**, **Prime Minister Narendra Modi** accused the **Congress** of “**callously giving away**” the island to **Sri Lanka**
पिछले साल के आम चुनावों से पहले, **प्रधानमंत्री नरेंद्र मोदी** ने कांग्रेस पर यह कहते हुए आरोप लगाया कि उसने यह द्वीप **श्रीलंका को लापरवाही से दे दिया**
- **External Affairs Minister S. Jaishankar** swiftly amplified this by blaming the two **BJP rivals** for **compromising Indian fishermen’s rights** in the **Palk Strait**
विदेश मंत्री एस. जयशंकर ने इसे और आगे बढ़ाते हुए दो **बीजेपी विरोधियों** पर **पाक जलसंधि में भारतीय मछुआरों के अधिकारों से समझौता करने का आरोप** लगाया
- Both **DMK** and **AIADMK** have demanded its **retrieval**
DMK और **AIADMK** दोनों ने इसके **पुनः प्राप्ति** की मांग की है
- In **2008**, former **Tamil Nadu Chief Minister Jayalalithaa**, as **AIADMK General Secretary**, petitioned the **Supreme Court** seeking a declaration that the **1974 and 1976 agreements were unconstitutional**
2008 में, **तमिलनाडु की पूर्व मुख्यमंत्री जयललिता**, **AIADMK की महासचिव** के रूप में, **सुप्रीम कोर्ट** में याचिका दायर की कि **1974 और 1976 के समझौते असंवैधानिक** हैं
- Ahead of **Prime Minister Modi’s visit to Sri Lanka in April 2025**, the **Tamil Nadu Legislative Assembly** unanimously adopted a **resolution**, urging the **Union government** to take steps to **retrieve the Katchatheevu island**
अप्रैल 2025 में प्रधानमंत्री मोदी की श्रीलंका यात्रा से पहले, **तमिलनाडु विधानसभा** ने सर्वसम्मति से एक **प्रस्ताव** पारित किया, जिसमें **केंद्र सरकार से कचचीवु द्वीप को वापस लेने** के लिए कदम उठाने का आग्रह किया गया
- Subsequently, **Chief Minister M.K. Stalin** said the island’s **retrieval** was “**the only permanent solution**” to the issues faced by the fishermen in the State
इसके बाद, **मुख्यमंत्री एम.के. स्टालिन** ने कहा कि द्वीप की **वापसी** राज्य के मछुआरों द्वारा झेली जाने वाली समस्याओं का “**एकमात्र स्थायी समाधान**” है

TOPICS COVERED (GS Paper III: Polity, Governance, And International Relations)

1. GI tag push for traditional items reshapes Bodoland poll narrative

पारंपरिक वस्तुओं के लिए जीआई टैग की पहल ने बदल दिया **बोडोलैंड चुनावी परिदृश्य**

2. CoWIN portal outage since August blocks certificate access across India

अगस्त से **CoWIN पोर्टल बंद**, पूरे भारत में प्रमाण पत्र की पहुंच बाधित



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

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

CONTACT: 9971932488



3. Will the GST rate cuts boost the economy?

क्या जीएसटी दरों में कटौती अर्थव्यवस्था को बढ़ावा देगी?

4. How RNA, amino acids may have linked up on early earth

प्रारंभिक पृथ्वी पर RNA और अमीनो एसिड कैसे जुड़े हो सकते हैं

5. On the move with green hydrogen

ग्रीन हाइड्रोजन के साथ प्रगति पर

PATRIOTIC IAS



GI tag push for traditional items reshapes Bodoland poll narrative

The registration of 21 items, including local textiles and traditional alcoholic beverages, has enthused 26 communities of the Bodoland Territorial Region to have their cultural artefacts GI-tagged; a youth-led initiative helped in gaining GI registration

GS III: S&T
Rahul Karmakar
GUWAHATI

Assam's poll-bound Bodoland Territorial Region (BTR) has the usual issues. It also has a new topic of discussion – Geographical Indication or GI tags for its traditional products, crafts, and agricultural items.

Elections in the 8,970-sq. km BTR, governed by the Bodoland Territorial Council (BTC), are scheduled for September 22. The council has 40 constituencies across five districts bordering Bhutan.

A team of Bodo youth undertook an initiative that helped the BTR government get GI registration for 21 items, including local textiles and traditional alcoholic beverages. Awareness about the inherent benefits of such tagging virtually triggered a race among 26 indigenous communities to register their cultural artefacts.

The core members of the team are biotechnologist Ling Narzihary, artist Swapna Muchahary, social worker Kansai Brahma,



Vibrant wear: Bodo textiles with their woven motifs have been recognised with GI tags. PTI

and entrepreneurs Nachani Brahma, Pulak Basumary, and Ranjila Mohilary.

"A GI tag fuels economic growth through higher market value and export potential, legal protection against unauthorised use and imitation, cultural preservation, and enhanced consumer trust by assuring quality and authenticity. It also fosters rural development," Mr. Narzihary said.

The team began collecting data in 2021 and identified more than 50 items that qualified for GI tagging. The registration for 21 of these was secured between November 2023 and

May 2024. A few months ago, the BTR government launched a special drive to secure the GI tag for the remaining and more traditional items of all 26 communities living in the BTR. Apart from the dominant Bodos, the communities include Adivasis, Gurkhas, Koch-Rajbongshis, Hajongs, Kurukhs, Madahi Kacharis, Hiras, and Patnis.

Recently, the Delhi-based Gandhi Hindustani Sahitya Sabha was roped in to provide expert guidance through a series of workshops, and help various community scholars and

leaders to identify and document their respective cultural items for filing GI tag applications.

The goal is to create "GI villages", where clusters of artisans and farmers will be supported with training, infrastructure, and direct market linkages.

ABSU resolution

About a decade ago, the All Bodo Students' Union (ABSU) adopted a resolution to seek GI tags for items unique to the BTR. The union was then headed by Pramod Boro, one of the key architects of the Bodo Peace Accord in January

2020. The push for GI tagging came after Mr. Boro, who left the ABSU to join the United People's Party Liberal (UPPL), became the Chief Executive Member of the BTC in December 2020. The UPPL rules the BTR in alliance with the Bharatiya Janata Party (BJP) and the regional Gana Suraksha Party. The UPPL and the BJP are locked in a three-cornered contest along with the Bodoland People's Front.

One of the priorities of the BTR government, headed by Mr. Boro, was to ensure the recognition and protection of indigenous heritage. The government's objective was similar to that of the team headed by Mr. Narzihary, leading to their collaboration. Among 21 items that received the GI tag are Aro-nai, Dokhona, and Zwmggra (motif-rich textiles); Kham, Serza, and Siphung (musical instruments); Maibra Zwu Bidwi and Zwu Gisi (alcoholic beverages); Gwkha Gwkhw and Napham (cuisine) and Gongar Dundia and Khera Daphini (rare medicinal plants).

GI tag push for traditional items reshapes Bodoland poll narrative

पारंपरिक वस्तुओं के लिए जीआई टैग की पहल ने बदल दिया बोडोलैंड चुनावी परिदृश्य

The registration of 21 items, including local textiles and traditional alcoholic beverages, has enthused 26 communities of the Bodoland Territorial Region (BTR) to have their cultural artefacts GI-tagged; a youth-led initiative helped in gaining GI registration



21 वस्तुओं, जिनमें स्थानीय वस्तु और पारंपरिक मादक पेय शामिल हैं, के पंजीकरण ने बोडोलैंड क्षेत्रीय क्षेत्र (BTR) की 26 समुदायों को अपने सांस्कृतिक कलाकृतियों को जीआई टैग दिलाने के लिए प्रेरित किया; युवाओं की अगुवाई में एक पहल ने जीआई पंजीकरण प्राप्त करने में मदद की

- Assam's poll-bound Bodoland Territorial Region (BTR) has the usual issues. It also has a new topic of discussion — **Geographical Indication (GI) tags** for its traditional products, crafts, and agricultural items
- चुनाव की तैयारी कर रहे असम के बोडोलैंड क्षेत्रीय क्षेत्र (BTR) में सामान्य मुद्दे हैं। इसमें एक नया मुद्दा भी है — पारंपरिक उत्पादों, शिल्प और कृषि वस्तुओं के लिए **भौगोलिक संकेतक (GI) टैग**
- Elections in the **8,970-sq. km BTR**, governed by the **Bodoland Territorial Council (BTC)**, are scheduled for **September 22**
- **8,970 वर्ग किलोमीटर के BTR**, जो **बोडोलैंड क्षेत्रीय परिषद (BTC)** द्वारा शासित है, में चुनाव **22 सितंबर** को होंगे
- The council has **40 constituencies** across five districts bordering **Bhutan**
- परिषद के पास **भूटान** की सीमा से लगे पांच जिलों में **40 निर्वाचन क्षेत्र** हैं
- A team of **Bodo youth** undertook an initiative that helped the **BTR government** get **GI registration** for **21 items**, including local textiles and traditional alcoholic beverages
- **बोडो युवाओं** की एक टीम ने एक पहल शुरू की जिसने **BTR सरकार** को **21 वस्तुओं** के लिए **जीआई पंजीकरण** प्राप्त करने में मदद की, जिनमें स्थानीय वस्तु और पारंपरिक मादक पेय शामिल हैं
- Awareness about the inherent benefits of such tagging virtually triggered a race among **26 indigenous communities** to register their cultural artefacts
- ऐसे टैगिंग के निहित लाभों के बारे में जागरूकता ने अपनी सांस्कृतिक कलाकृतियों को पंजीकृत करने के लिए **26 स्वदेशी समुदायों** के बीच प्रतिस्पर्धा शुरू कर दी
- The core members of the team are **biotechnologist Ling Narzihary**, **artist Swapna Muchahary**, **social worker Kansai Brahma**, and **entrepreneurs Nachani Brahma**, **Pulak Basumatary**, and **Ranjila Mohilary**
- टीम के मुख्य सदस्य हैं **बायोटेक्नोलॉजिस्ट लिंग नार्जिहारी**, **कलाकार स्वप्ना मुचाहारी**, **सामाजिक कार्यकर्ता कंसाई ब्रह्मा**, और **उद्यमी नचानी ब्रह्मा**, **पुलक बसुमातारी**, तथा **रंजीला मोहिलारी**
- "A **GI tag** fuels economic growth through higher market value and export potential, legal protection against unauthorised use and imitation, cultural preservation, and enhanced consumer trust by assuring quality and authenticity. It also fosters rural development," **Mr. Narzihary** said
- "**जीआई टैग** उच्च बाजार मूल्य और निर्यात क्षमता, अनधिकृत उपयोग और नकल के खिलाफ कानूनी संरक्षण, सांस्कृतिक संरक्षण और गुणवत्ता और प्रामाणिकता सुनिश्चित करके उपभोक्ता विश्वास बढ़ाकर आर्थिक विकास को बढ़ावा देता है। यह ग्रामीण विकास को भी प्रोत्साहित करता है," **श्री नार्जिहारी** ने कहा
- The team began collecting data in **2021** and identified more than **50 items** that qualified for GI tagging
- टीम ने **2021** में डेटा एकत्र करना शुरू किया और **50 से अधिक वस्तुओं** की पहचान की जो जीआई टैगिंग के लिए योग्य थीं
- The registration for **21 of these** was secured between **November 2023 and May 2024**
- इनमें से **21 का पंजीकरण नवंबर 2023 और मई 2024** के बीच सुरक्षित किया गया
- A few months ago, the **BTR government** launched a special drive to secure the GI tag for the remaining and more traditional items of all **26 communities** living in the BTR
- कुछ महीने पहले, **BTR सरकार** ने **BTR** में रहने वाले सभी **26 समुदायों** की शेष और अधिक पारंपरिक वस्तुओं के लिए जीआई टैग सुरक्षित करने के लिए एक विशेष अभियान शुरू किया



- Apart from the dominant **Bodos**, the communities include **Adivasis, Gurkhas, Koch-Rajbongshis, Hajongs, Kurukhs, Madahi Kacharis, Hiras, and Patnis**
- प्रमुख **बोडो** के अलावा, समुदायों में **आदिवासी, गोरखा, कोच-राजवंशी, हाजोंग, कुरुख, मदही कछारी, हीरा और पटनी** शामिल हैं
- Recently, the **Delhi-based Gandhi Hindustani Sahitya Sabha** was roped in to provide expert guidance through a series of workshops, and help various community scholars and leaders to identify and document their respective cultural items for filing GI tag applications
- हाल ही में, **दिल्ली स्थित गांधी हिंदुस्तानी साहित्य सभा** को कार्यशालाओं की एक श्रृंखला के माध्यम से विशेषज्ञ मार्गदर्शन प्रदान करने और विभिन्न समुदायों के विद्वानों और नेताओं को जीआई टैग आवेदन दाखिल करने के लिए अपने-अपने सांस्कृतिक वस्तुओं की पहचान और दस्तावेजीकरण में मदद करने के लिए शामिल किया गया
- The goal is to create "**GI villages**", where clusters of artisans and farmers will be supported with training, infrastructure, and direct market linkages
- लक्ष्य "**जीआई गांव**" बनाने का है, जहां कारीगरों और किसानों के समूहों को प्रशिक्षण, बुनियादी ढांचा और प्रत्यक्ष बाजार संबंधों के साथ समर्थन दिया जाएगा

ABSU resolution

एबीएसयू प्रस्ताव

- About a decade ago, the **All Bodo Students' Union (ABSU)** adopted a resolution to seek **GI tags** for items unique to the BTR
- लगभग एक दशक पहले, **ऑल बोडो स्टूडेंट्स यूनियन (ABSU)** ने **BTR** की विशिष्ट वस्तुओं के लिए **जीआई टैग** की मांग करने का प्रस्ताव अपनाया
- The union was then headed by **Pramod Boro**, one of the key architects of the **Bodo Peace Accord in January 2020**
- उस समय संघ के प्रमुख **प्रमोद बोरों** थे, जो **जनवरी 2020** में **बोडो शांति समझौते** के प्रमुख निर्माताओं में से एक थे
- The push for GI tagging came after **Mr. Boro**, who left the **ABSU** to join the **United People's Party Liberal (UPPL)**, became the **Chief Executive Member of the BTC in December 2020**
- **श्री बोरों** के **ABSU** छोड़कर **यूनाइटेड पीपल्स पार्टी लिबरल (UPPL)** में शामिल होने और **दिसंबर 2020** में **BTC** के **मुख्य कार्यकारी सदस्य** बनने के बाद जीआई टैगिंग के लिए प्रयास शुरू हुए
- The **UPPL** rules the **BTR** in alliance with the **Bharatiya Janata Party (BJP)** and the regional **Gana Suraksha Party**
- **UPPL BTR** पर **भारतीय जनता पार्टी (BJP)** और क्षेत्रीय **गण सुरक्षा पार्टी** के साथ गठबंधन में शासन करती है
- The **UPPL** and the **BJP** are locked in a three-cornered contest along with the **Bodoland People's Front**
- **UPPL** और **BJP**, **बोडोलैंड पीपुल्स फ्रंट** के साथ तीन तरफा मुकाबले में हैं
- One of the priorities of the **BTR government**, headed by **Mr. Boro**, was to ensure the recognition and protection of **indigenous heritage**
- **श्री बोरों** के नेतृत्व वाली **BTR सरकार** की प्राथमिकताओं में से एक **स्वदेशी विरासत** की पहचान और संरक्षण सुनिश्चित करना था
- The government's objective was similar to that of the team headed by **Mr. Narzhary**, leading to their collaboration
- सरकार का उद्देश्य **श्री नार्जहारी** के नेतृत्व वाली टीम के समान था, जिससे उनके बीच सहयोग हुआ
- Among **21 items** that received the **GI tag** are **Aronai, Dokhona, and Zwmgra** (motif-rich textiles); **Kham, Serza, and Siphung** (musical instruments); **Maibra Zwu Bidwi and Zwu Gisi** (alcoholic beverages); **Gwkha Gwkhw** and **Napham** (cuisine) and **Gongar Dundia** and **Khera Daphini** (rare medicinal plants)



- 21 वस्तुओं में जिन्हें जीआई टैग प्राप्त हुआ उनमें अरोनाई, डोकखोना और ज्वमग्रा (आकृति-समृद्ध वस्तु); खाम, सेरजा और सिफुंग (वाद्य यंत्र); मैब्रा ज़ु बिडवी और ज़ु गिसी (मादक पेय); ग्वखा ग्वखी और नाफम (व्यंजन) तथा गोंगर डुंडिया और खेड़ा डाफिनी (दुर्लभ औषधीय पौधे) शामिल हैं

CoWIN portal outage since August blocks certificate access across India

GS III: S&T

Bindu Shajan Perappadan
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NEW DELHI

The CoWIN portal, where the Union and State governments had together recorded over two billion vaccination doses for COVID-19, has been down since early August, a weeks-long outage that has locked many residents in India out of their vaccination certificates.

On August 23, an official source said that they were aware of the issue, and that the outage would be addressed quickly. However, the issue remains.

Throughout the pandemic, the CoWIN portal's certificates were touted as a signature digital achievement of the Union government, and for several months the certificates were required for everything from travelling abroad to essential annexures to job applications.

While COVID-19 vaccination certificates no longer play the passport-like role they did during the most serious waves of the pandemic – owing to near total coverage of at least one dose of vaccine – the



The vaccination certificates are often part of the documents required for processing of visas for international travel. FILE PHOTO

outage is not without its victims. "I am unable to download my travel and vaccination certificates, which are essential for visa processing," Sohail Marakkar, a Bengaluru resident, complained on social media platform X on Monday. Mr. Marakkar told *The Hindu* that his travel agency had included a vaccine certificate in the checklist for travelling, and that even the feature of fetching a third-party certificate through DigiLocker was not working.

"The issue will be resolved by Monday. Team is at it," a senior Union Health Ministry official told *The Hindu* on Saturday.

CoWIN (Covid Vaccine

Intelligence Network), the government's Web portal for COVID-19 vaccination registration, owned and operated by the Union Ministry of Health and Family Welfare, serves the function of registration, appointment scheduling, identity verification, vaccination, and certification of each vaccinated member.

Five modules

The CoWIN application was developed with five modules – the orchestration module, vaccination cold chain module, citizen registration module, vaccinator module, and module for certificate, feedback, and adverse event following immunisation report-

ing. Eight vaccines such as Covishield, Covaxin, Corbevax, and Sputnik-V had been incorporated on the platform. India in 2021 offered the CoWIN platform as a digital public good to the world to combat COVID-19.

On the current demand for the vaccine, Suranjit Chatterjee, consultant, internal medicine, Indra-prastha Apollo Hospital, Delhi, said there was no rush for the COVID vaccine. "We are getting one or two people coming in with requests to get vaccinated, but largely there is not much demand for the vaccines," Dr. Chatterjee said.

Meanwhile, according to the World Health Organization's latest report on the coronavirus in the 28-day period from July 21 to August 17, 87 countries across five WHO regions reported new COVID-19 cases. "During this 28-day period, a total of 71,687 new cases were reported, which is a decrease compared to the 92,519 new cases reported from 95 countries in the previous 28-day period," the WHO said.



CoWIN portal outage since August blocks certificate access across India

अगस्त से CoWIN पोर्टल बंद, पूरे भारत में प्रमाण पत्र की पहुंच बाधित

- The **CoWIN portal**, where the **Union and State governments** had together recorded over **two billion vaccination doses for COVID-19**, has been down since **early August**, a weeks-long outage that has locked many residents in India out of their vaccination certificates.
CoWIN पोर्टल, जहां **केंद्र और राज्य सरकारों** ने मिलकर **COVID-19 के दो बिलियन से अधिक टीकाकरण खुराक** दर्ज किए थे, **अगस्त की शुरुआत से बंद** है, जिससे कई हफ्तों तक जारी रुकावट ने भारत में कई निवासियों को उनके **टीकाकरण प्रमाण पत्रों** से वंचित कर दिया है।
- On **August 23**, an official source said that they were aware of the issue, and that the outage would be addressed quickly. However, the issue remains.
23 अगस्त को, एक आधिकारिक स्रोत ने कहा कि वे इस समस्या से अवगत हैं और इस **बंद को जल्दी ही हल किया जाएगा**। हालांकि, समस्या बनी हुई है।
- Throughout the **pandemic**, the **CoWIN portal's certificates** were touted as a signature digital achievement of the **Union government**, and for several months the certificates were required for everything from travelling abroad to essential annexures to job applications.
पूरे **महामारी** के दौरान, **CoWIN पोर्टल के प्रमाण पत्रों** को **केंद्र सरकार** की एक प्रमुख **डिजिटल उपलब्धि** बताया गया था, और कई महीनों तक ये प्रमाण पत्र **विदेश यात्रा** से लेकर **नौकरी आवेदन के आवश्यक दस्तावेजों** तक के लिए जरूरी थे।
- While **COVID-19 vaccination certificates** no longer play the passport-like role they did during the most serious waves of the pandemic — owing to near total coverage of at least one dose of vaccine — the outage is not without its victims.
हालांकि **COVID-19 टीकाकरण प्रमाण पत्र** अब महामारी की गंभीर लहरों के दौरान पासपोर्ट जैसे भूमिका नहीं निभाते — क्योंकि कम से कम एक **टीके की खुराक का लगभग पूर्ण कवरेज** हो चुका है — लेकिन इस **बंद** के कारण लोग प्रभावित हो रहे हैं।
- "I am unable to download my travel and vaccination certificates, which are essential for visa processing," **Sohail Marakkar**, a **Bengaluru resident**, complained on social media platform **X** on Monday.
"मैं अपने **यात्रा और टीकाकरण प्रमाण पत्र** डाउनलोड करने में असमर्थ हूँ, जो **वीजा प्रोसेसिंग** के लिए आवश्यक हैं," **सोहैल मरक्कार**, **बेंगलुरु निवासी**, ने सोमवार को सोशल मीडिया प्लेटफॉर्म **X** पर शिकायत की।
- Mr. Marakkar told The Hindu that his travel agency had included a vaccine certificate in the checklist for travelling, and that even the feature of fetching a third-party certificate through **DigiLocker** was not working.
मरक्कार ने द हिंदू को बताया कि उनकी **ट्रैवल एजेंसी** ने **यात्रा के लिए चेकलिस्ट** में **टीकाकरण प्रमाण पत्र** शामिल किया था, और **DigiLocker** के माध्यम से **थर्ड-पार्टी प्रमाण पत्र** प्राप्त करने की सुविधा भी काम नहीं कर रही है।
- "The issue will be resolved by Monday. Team is at it," a senior **Union Health Ministry** official told The Hindu on Saturday.
"यह समस्या सोमवार तक हल हो जाएगी। **टीम काम कर रही है**," एक वरिष्ठ **केंद्रीय स्वास्थ्य मंत्रालय** के अधिकारी ने शनिवार को द हिंदू को बताया।
- **CoWIN (Covid Vaccine Intelligence Network)**, the government's **Web portal for COVID-19 vaccination registration**, owned and operated by the **Union Ministry of Health and Family Welfare**, serves the function of registration, appointment scheduling, identity verification, vaccination, and certification of each vaccinated member.
CoWIN (कोविड वैक्सीन इंटेलिजेंस नेटवर्क), सरकार का **COVID-19 टीकाकरण पंजीकरण के लिए वेब पोर्टल**, जो **केंद्रीय स्वास्थ्य और परिवार कल्याण मंत्रालय** के स्वामित्व और संचालन में है, पंजीकरण, **अपॉइंटमेंट शेड्यूलिंग**, पहचान सत्यापन, टीकाकरण और प्रत्येक टीकाकृत सदस्य के प्रमाणन का कार्य करता है।
- **Five modules**
पांच मॉड्यूल
- The **CoWIN application** was developed with **five modules** — the **orchestration module**, **vaccination cold chain module**, **citizen registration module**, **vaccinator module**, and



module for certificate, feedback, and adverse event following immunisation reporting.

CoWIN एप्लिकेशन को पांच मॉड्यूल के साथ विकसित किया गया था — ऑर्किस्ट्रेशन मॉड्यूल, टीकाकरण कोल्ड चेन मॉड्यूल, नागरिक पंजीकरण मॉड्यूल, वैक्सीनेटर मॉड्यूल, और प्रमाण पत्र, फीडबैक और प्रतिकूल घटनाओं की रिपोर्टिंग मॉड्यूल।

- **Eight vaccines** such as **Covishield**, **Covaxin**, **Corbevax**, and **Sputnik-V** had been incorporated on the platform.
Covishield, **Covaxin**, **Corbevax**, और **Sputnik-V** जैसी आठ वैक्सीन को इस प्लेटफॉर्म पर शामिल किया गया था।
- India in **2021** offered the **CoWIN platform** as a **digital public good** to the world to combat **COVID-19**.
भारत ने **2021** में **COVID-19** से लड़ने के लिए **CoWIN प्लेटफॉर्म** को एक **डिजिटल सार्वजनिक संसाधन** के रूप में दुनिया को पेश किया।
- On the current demand for the vaccine, **Suranjit Chatterjee**, consultant, **internal medicine**, **Indraprastha Apollo Hospital**, Delhi, said there was no rush for the COVID vaccine.
वर्तमान में टीके की मांग पर, **सुरजित चटर्जी**, इंटरनल मेडिसिन कंसल्टेंट, **इंद्रप्रस्थ अपोलो हॉस्पिटल**, दिल्ली ने कहा कि **COVID वैक्सीन** के लिए कोई विशेष भीड़ नहीं है।
- “We are getting one or two people coming in with requests to get vaccinated, but largely there is not much demand for the vaccines,” Dr. Chatterjee said.
“हमें एक या दो लोग टीका लगवाने के लिए अनुरोध करते हुए आ रहे हैं, लेकिन बड़े पैमाने पर टीकों की ज्यादा मांग नहीं है,” डॉ. चटर्जी ने कहा।
- Meanwhile, according to the **World Health Organization’s (WHO)** latest report on the **coronavirus**, in the **28-day period** from **July 21 to August 17**, **87 countries** across **five WHO regions** reported new **COVID-19 cases**.
इस बीच, **विश्व स्वास्थ्य संगठन (WHO)** की नवीनतम रिपोर्ट के अनुसार, **21 जुलाई से 17 अगस्त** की **28-दिवसीय अवधि** में, **WHO** के पांच क्षेत्रों के **87 देशों** ने नए **COVID-19 मामलों** की सूचना दी।
- “During this 28-day period, a total of **71,687 new cases** were reported, which is a decrease compared to the **92,519 new cases** reported from **95 countries** in the previous 28-day period,” the WHO said.
“इस **28-दिवसीय अवधि** में कुल **71,687 नए मामले** दर्ज किए गए, जो पिछले **28-दिवसीय अवधि** में **95 देशों** से रिपोर्ट किए गए **92,519 नए मामलों** की तुलना में कम है,” **WHO** ने कहा।



Will the GST rate cuts boost the economy?

Which sectors will benefit from the sweeping changes? Which sectors are disgruntled about the change? How long has the rationalisation process been going on? Did the imposition of 50% U.S. tariffs weigh on the decision? What about revenue implications? What lies ahead?

GS III: Taxation

T.C.A. Sharad Raghavan

The story so far:

In September 3, the GST Council authorised a new paradigm in the indirect tax regime. There will be fewer rates, and the Goods and Services Tax (GST) on most items have been reduced. While this has been welcomed by most sectors, there are some which are somewhat disgruntled. There are also concerns over the revenue implications.

What prompted these changes?

The rationalisation of the multiple rates in GST has been on the anvil for a long time. The Council had in September 2021 constituted a Group of Ministers (GoM) to look into rate rationalisation. This GoM began its work, but seemingly little progress was made. The GoM was composed entirely of representatives from the States, with no representative from the Centre. So, in order to nudge it in the direction it wanted, the Union government had to make a proposal to the GoM. The Ministry of Finance on August 15, 2025, announced that it had submitted its proposal to the GoM. Earlier that same day, in his Independence Day speech, Prime Minister Narendra Modi had announced that these "next-generation" GST reforms would be a Deepavali gift to the nation.

By August 21, 2025, the GoM – following a briefing by Union Finance Minister Nirmala Sitharaman – had accepted the proposals and forwarded them to the GST Council. The Council then deliberated on these proposals on September 3 during a 10.5-hour-long meeting, following which it announced its decisions.

What are the changes?

The existing GST structure has multiple rates,



Much relief: The BJP celebrating new rates, in Bengaluru, on September 5. PTI

The States will have to look for their own sources of revenue to make up any losses

even when considering only the main ones. The main rates comprise 0%, 5%, 12%, 18%, 28%, and a compensation cess over and above the 28% slab. This has been reduced to main slabs of 0%, 5%, 18% and 40%. The compensation cess for most items has been removed. It is still levied on tobacco products, but even that will be removed by the end of this calendar year, when the Centre pays back the loan it took to compensate States during the COVID-19 pandemic.

Apart from this, many items have been moved to lower tax slabs. According to an analysis by the State Bank of India's economics research wing, of the 453 items that saw a change in their GST rate, 413 (or a little more than 91%) saw rates being cut, while 40 items saw rates increasing. The bulk of the rate reductions – 257 items, mostly common use products – were from the 12% to the 5% slab. Out of the 40 items that saw their rates increase, 17 were moved from the 28% slab to 40%. Here, it is important to note that the actual tax incidence might not have increased. For example, once the compensation cess is added, the effective tax rate on luxury cars and SUVs is 45-50%. That will go down to 40%.

Why were they necessary?

There are several reasons why the GST rate cuts make sense now. The first is that the legal period for the GST compensation cess will likely be coming to an end this calendar year. It can be levied up to March 31, 2026 or till when the Centre pays off its loans, whichever is earlier. Ms. Sitharaman said she expects the loans to be repaid this calendar year. The removal of this cess, without raising the base rates on tobacco products, would mean that these 'sin' goods would have suddenly become significantly cheaper. This is something the Union government could not be seen to be condoning. That set a time limit by when the new rates had to be implemented. The other reason is that the government expects some sort of detrimental impact from the 50% tariff imposed by the U.S. on imports from India. This is clear from the fact that, despite a strong 7.8% GDP growth in Q1 of this financial year, the government has not changed its 6.3%-6.8% growth estimate for the full year, implying it expects growth in the subsequent quarters to be significantly slower. The boost from the GST rate cuts is expected to offset this hit. The government, however, has officially denied any such connection, saying the GST changes were part of an overall reforms push and not related to the tariffs.

Which sectors were happy with the reforms?

The healthcare industry voiced its approval of

the changes, saying the decision to reduce GST in the sector from 12% to 5% on a wide range of medical products would directly benefit patients. The renewable energy sector, too, praised the decision to reduce taxes on renewable energy components from 12% to 5%, saying this was a progressive step towards accelerating India's clean energy transition. Consumer appliance makers were also upbeat about the cuts, saying it would boost demand, especially in the run-up to the festive season.

The real estate sector said that bringing down the GST rate on cement from 28% to 18%, and on other building materials such as granite slabs, would reduce costs for the sector and be a big boost. Auto manufacturers said the reduction of GST on cars and non-luxury bikes from 28% to 18% would spur demand.

Which sectors voiced reservations?

The textile industry welcomed the downward revision of GST rates for both man-made fibre and cotton sectors to 5%, but also voiced its disappointment over the 18% duty for garments priced above ₹2,500 each. They said that woollens, wedding apparel, and traditional Indian wear would become more expensive.

While auto manufacturers welcomed the rate rationalisation, dealers voiced some worries about consumers postponing their purchases until September 22, when the new rates come into force. They also called for greater clarity on what happens to the cess on vehicles they have bought from manufacturers but not yet sold.

The insurance sector will likely also see a mixed picture from the GST rate cuts. The exemption of personal life and health insurance from GST will increase insurance penetration, but the simultaneous removal of input tax credits might increase costs for insurers, thereby eating into their profits.

Airlines have collectively slammed the higher GST on non-economy seats, while vegetable oil producers said the Council could have resolved the inverted duty structure on edible oils – something it did for fertilizers and man-made textiles. The increase in the GST rate for labour charges from 12% to 18% has also led to some resistance from representatives of the MSME sector, who said their costs would increase.

What is the revenue impact?

The Centre said the revenue implication would be ₹48,000 crore based on consumption patterns in 2023-24. However, the real impact will be ascertained only when new data is obtained. The SBI research team estimates it to be a much smaller ₹3,700 crore. Opposition States, however, are worried. They have voiced their demand for a cess to be levied on items in the 40% slab, the proceeds of which can be used to compensate States for the revenue hit. This was not accepted by the Council. The States will have to look for their own sources, and the 16th Finance Commission, to make up any losses.

Will the GST rate cuts boost the economy?

क्या जीएसटी दरों में कटौती अर्थव्यवस्था को बढ़ावा देगी?

Which sectors will benefit from the sweeping changes?

कौन से क्षेत्र व्यापक बदलावों से लाभान्वित होंगे?

Which sectors are disgruntled about the change?

कौन से क्षेत्र इस बदलाव से असंतुष्ट हैं?

How long has the rationalisation process been going on?

तर्कसंगतीकरण प्रक्रिया कितने समय से चल रही है?



Did the imposition of 50% U.S. tariffs weigh on the decision?
क्या 50% अमेरिकी टैरिफ के लागू होने का इस निर्णय पर प्रभाव पड़ा?

What about revenue implications?
राजस्व प्रभाव के बारे में क्या?

- **What lies ahead?**
आगे क्या है?
- **On September 3**, the **GST Council** authorised a new paradigm in the **indirect tax regime**.
3 सितंबर को, जीएसटी परिषद ने अप्रत्यक्ष कर प्रणाली में एक नया ढांचा अधिकृत किया।
- There will be fewer rates, and the **Goods and Services Tax (GST)** on most items have been reduced.
अब दरें कम होंगी, और अधिकांश वस्तुओं पर **वस्तु एवं सेवा कर (जीएसटी)** कम कर दिया गया है।
- While this has been welcomed by most sectors, there are some which are somewhat disgruntled.
जहां इसे अधिकांश क्षेत्रों ने स्वागत किया है, वहीं कुछ क्षेत्र इससे असंतुष्ट हैं।
- There are also concerns over the **revenue implications**.
राजस्व प्रभाव को लेकर भी चिंताएं हैं।

What prompted these changes?
इन बदलावों को क्या प्रेरित किया?

- The rationalisation of the multiple rates in GST has been on the anvil for a long time.
जीएसटी में कई दरों का तर्कसंगतीकरण लंबे समय से विचाराधीन था।
- The **Council** had in **September 2021** constituted a **Group of Ministers (GoM)** to look into rate rationalisation.
परिषद ने सितंबर 2021 में दर तर्कसंगतीकरण की जांच के लिए **मंत्रियों का समूह (गोएम)** गठित किया था।
- This **GoM** began its work, but seemingly little progress was made.
इस गोएम ने अपना काम शुरू किया, लेकिन बहुत कम प्रगति हुई।
- The **GoM** was composed entirely of representatives from the **States**, with no representative from the **Centre**.
गोएम पूरी तरह से राज्यों के प्रतिनिधियों से बना था, जिसमें केंद्र का कोई प्रतिनिधि नहीं था।
- So, in order to nudge it in the direction it wanted, the **Union government** had to make a proposal to the **GoM**.
इसलिए, इसे अपनी दिशा में लाने के लिए केंद्र सरकार को गोएम को एक प्रस्ताव देना पड़ा।
- The **Ministry of Finance** on **August 15, 2025**, announced that it had submitted its proposal to the **GoM**.
वित्त मंत्रालय ने 15 अगस्त 2025 को घोषणा की कि उसने अपना प्रस्ताव गोएम को प्रस्तुत कर दिया है।
- Earlier that same day, in his **Independence Day** speech, **Prime Minister Narendra Modi** had announced that these "next-generation" **GST reforms** would be a **Deepavali gift** to the nation.
उसी दिन पहले, अपने स्वतंत्रता दिवस भाषण में, प्रधानमंत्री नरेंद्र मोदी ने घोषणा की कि ये "अगली पीढ़ी" के जीएसटी सुधार राष्ट्र के लिए एक दीपावली उपहार होंगे।
- By **August 21, 2025**, the **GoM** — following a briefing by **Union Finance Minister Nirmala Sitharaman** — had accepted the proposals and forwarded them to the **GST Council**.
21 अगस्त 2025 तक, गोएम — केंद्रीय वित्त मंत्री निर्मला सीतारमण की ब्रीफिंग के बाद — प्रस्तावों को स्वीकार कर जीएसटी परिषद को भेज दिया।
- The **Council** then deliberated on these proposals on **September 3** during a **10.5-hour-long meeting**, following which it announced its decisions.
परिषद ने 3 सितंबर को 10.5 घंटे लंबी बैठक में इन प्रस्तावों पर विचार-विमर्श किया, जिसके बाद अपने निर्णयों की घोषणा की।

What are the changes?
बदलाव क्या हैं?



- The existing **GST structure** has multiple rates, even when considering only the main ones. मौजूदा **जीएसटी संरचना** में कई दरें हैं, यहां तक कि मुख्य दरों को ही देखें तो भी।
- The main rates comprise **0%, 5%, 12%, 18%, 28%**, and a **compensation cess** over and above the 28% slab. मुख्य दरें **0%, 5%, 12%, 18%, 28%** और **28% स्लैब** के ऊपर **मुआवजा उपकर** हैं।
- This has been reduced to main slabs of **0%, 5%, 18%** and **40%**. इसे घटाकर मुख्य स्लैब **0%, 5%, 18%** और **40%** कर दिया गया है।
- The **compensation cess** for most items has been removed. अधिकांश वस्तुओं पर **मुआवजा उपकर** हटा दिया गया है।
- It is still levied on **tobacco products**, but even that will be removed by the end of this calendar year, when the **Centre** pays back the loan it took to compensate **States** during the **COVID-19 pandemic**. यह अभी भी **तंबाकू उत्पादों** पर लगाया जा रहा है, लेकिन यह भी इस कैलेंडर वर्ष के अंत तक हटा दिया जाएगा, जब **केंद्र कोविड-19 महामारी** के दौरान **राज्यों** की क्षतिपूर्ति के लिए लिए गए ऋण का भुगतान कर देगा।
- Apart from this, many items have been moved to lower tax slabs. इसके अलावा, कई वस्तुओं को कम कर स्लैब में स्थानांतरित किया गया है।
- According to an analysis by the **State Bank of India's economics research wing**, of the **453 items** that saw a change in their **GST rate**, **413** (or a little more than **91%**) saw rates being cut, while **40 items** saw rates increasing. **भारतीय स्टेट बैंक के आर्थिक अनुसंधान विभाग** के विश्लेषण के अनुसार, जिन **453 वस्तुओं** की **जीएसटी दर** में बदलाव हुआ, उनमें से **413** (या थोड़ा अधिक **91%**) की दरें घटाई गईं, जबकि **40 वस्तुओं** की दरें बढ़ाई गईं।
- The bulk of the rate reductions — **257 items**, mostly common use products — were from the **12% to the 5% slab**. दर कटौती का बड़ा हिस्सा — **257 वस्तुएं**, ज्यादातर सामान्य उपयोग की वस्तुएं — **12% से 5% स्लैब** में लाया गया।
- Out of the **40 items** that saw their rates increase, **17** were moved from the **28% slab to 40%**. **40 वस्तुओं** में से जिनकी दरें बढ़ीं, **17** को **28% स्लैब** से **40%** स्लैब में स्थानांतरित किया गया।
- Here, it is important to note that the actual tax incidence might not have increased. यहां यह ध्यान देने योग्य है कि वास्तविक कर प्रभाव बढ़ा नहीं होगा।
- For example, once the **compensation cess** is added, the effective tax rate on **luxury cars and SUVs** is **45-50%**. उदाहरण के लिए, जब **मुआवजा उपकर** जोड़ा जाता है, तो **लक्जरी कारों और एसयूवी** पर प्रभावी कर दर **45-50%** होती है।
- That will go down to **40%**. यह **40%** तक घट जाएगी।

Why were they necessary?

ये क्यों आवश्यक थे?

- There are several reasons why the **GST rate cuts** make sense now. ऐसे कई कारण हैं जिनसे अब **जीएसटी दरों में कटौती** उचित लगती है।
- The first is that the legal period for the **GST compensation cess** will likely be coming to an end this calendar year. पहला कारण यह है कि **जीएसटी मुआवजा उपकर** की कानूनी अवधि इस कैलेंडर वर्ष समाप्त होने की संभावना है।
- It can be levied up to **March 31, 2026** or till when the **Centre** pays off its loans, whichever is earlier. इसे **31 मार्च 2026** तक या जब तक **केंद्र** अपने ऋण चुका न दे, जो भी पहले हो, तक लगाया जा सकता है।
- **Ms. Sitharaman** said she expects the loans to be repaid this calendar year. **सुश्री सीतारमण** ने कहा कि उन्हें उम्मीद है कि ऋण इस कैलेंडर वर्ष में चुका दिया जाएगा।
- The removal of this cess, without raising the base rates on **tobacco products**, would mean that these 'sin' goods would have suddenly become significantly cheaper.



इस उपकरण को हटाना, बिना **तंबाकू उत्पादों** पर मूल दर बढ़ाए, का मतलब होगा कि ये 'पाप' उत्पाद अचानक काफी सस्ते हो जाएंगे।

- This is something the **Union government** could not be seen to be condoning.
यह ऐसा कुछ है जिसे **केंद्र सरकार** समर्थन करती हुई नहीं दिख सकती थी।
- That set a time limit by when the new rates had to be implemented.
इससे नई दरों को लागू करने की समय सीमा तय हुई।
- The other reason is that the government expects some sort of detrimental impact from the **50% tariff** imposed by the **U.S.** on **imports from India**.
दूसरा कारण यह है कि सरकार को उम्मीद है कि **अमेरिका** द्वारा **भारत से आयात** पर लगाए गए **50% टैरिफ** से कुछ नकारात्मक प्रभाव पड़ेगा।
- This is clear from the fact that, despite a strong **7.8% GDP growth** in **Q1 of this financial year**, the government has not changed its **6.3%-6.8% growth estimate** for the full year, implying it expects growth in the subsequent quarters to be significantly slower.
यह स्पष्ट है कि इस वित्तीय वर्ष की **पहली तिमाही में 7.8% जीडीपी वृद्धि** होने के बावजूद, सरकार ने पूरे वर्ष के लिए अपनी **6.3%-6.8% वृद्धि अनुमान** नहीं बदला है, जो दर्शाता है कि वह अगले तिमाहियों में वृद्धि को काफी धीमा मान रही है।
- The boost from the **GST rate cuts** is expected to offset this hit.
जीएसटी दरों में कटौती से मिलने वाला प्रोत्साहन इस झटके की भरपाई करने की उम्मीद है।
- The government, however, has officially denied any such connection, saying the **GST changes** were part of an overall reforms push and not related to the **tariffs**.
हालांकि, सरकार ने आधिकारिक तौर पर किसी भी संबंध से इनकार किया है और कहा है कि **जीएसटी बदलाव** समग्र सुधार प्रयास का हिस्सा हैं और **टैरिफ** से संबंधित नहीं हैं।

Which sectors were happy with the reforms? कौन से क्षेत्र सुधारों से खुश थे?

- The **healthcare industry** voiced its approval of the changes, saying the decision to reduce **GST** in the sector from **12% to 5%** on a wide range of **medical products** would directly benefit patients.
स्वास्थ्य सेवा उद्योग ने बदलावों की सराहना की और कहा कि **चिकित्सा उत्पादों** पर **जीएसटी** को **12% से घटाकर 5%** करने का निर्णय सीधे रोगियों को लाभ पहुंचाएगा।
- The **renewable energy sector**, too, praised the decision to reduce taxes on **renewable energy components** from **12% to 5%**, saying this was a progressive step towards accelerating **India's clean energy transition**.
नवीकरणीय ऊर्जा क्षेत्र ने भी **नवीकरणीय ऊर्जा घटकों** पर **12% से 5%** कर घटाने के निर्णय की सराहना की, इसे **भारत के स्वच्छ ऊर्जा संक्रमण** को तेज करने की दिशा में प्रगतिशील कदम बताया।
- **Consumer appliance makers** were also upbeat about the cuts, saying it would boost demand, especially in the run-up to the **festive season**.
उपभोक्ता उपकरण निर्माता भी कटौती को लेकर उत्साहित थे और कहा कि यह मांग को बढ़ाएगा, खासकर **त्योहारी सीजन** से पहले।
- The **real estate sector** said that bringing down the **GST rate** on **cement** from **28% to 18%**, and on other building materials such as **granite slabs**, would reduce costs for the sector and be a big boost.
रियल एस्टेट क्षेत्र ने कहा कि **सीमेंट** पर **जीएसटी दर** को **28% से घटाकर 18%** करने और अन्य निर्माण सामग्री जैसे **ग्रेनाइट स्लैब्स** पर कर घटाने से क्षेत्र की लागत कम होगी और यह बड़ा प्रोत्साहन होगा।
- **Auto manufacturers** said the reduction of **GST** on cars and **non-luxury bikes** from **28% to 18%** would spur demand.
ऑटो निर्माताओं ने कहा कि कारों और **गैर-लक्जरी बाइक्स** पर **जीएसटी** को **28% से 18%** करने से मांग बढ़ेगी।



How RNA, amino acids may have linked up on early earth

By showing amino acids latch directly onto RNA without enzymes, researchers have provided striking evidence that life's essential partnership between genes and proteins might have begun in ordinary ponds or frozen pools billions of years ago

CS III: S&T

Anirban Mukhopadhyay

Life depends on a partnership between RNA, which stores instructions, and proteins, which do the work of building and running cells. But how this partnership began has long puzzled scientists. To make a protein, constituent amino acids must be linked in the order encoded by RNA. Today, a complex biological machine called the ribosome handles this task – but only after each amino acid is first “loaded” onto an RNA adapter. The catch is that the enzymes responsible for this loading are themselves proteins, creating a chicken-and-egg puzzle that has intrigued chemists for decades.

A new study in *Nature* offers a glimpse of how this riddle might have been resolved. Researchers at University College London found that simple molecules called aminoacyl-thiols can link amino acids to RNA without enzymes.

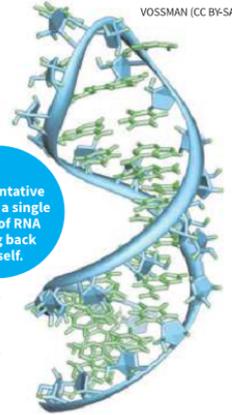
Think of amino acids as beads and RNA as the thread. In cells today, enzymes act as skilled hands to string them together. The team showed that, in the right conditions, with aminoacyl-thiols the beads can fasten themselves to the thread in plain water, much like on the early earth.

More strikingly, this aminoacyl-thiol chemistry favours RNA over other, more reactive molecules, which is an unexpected se-

Surprise chemistry

Chemistry reveals RNA and amino acids linked directly at life's dawn

- Scientists remain intrigued by how RNA and proteins first partnered to enable life's first cellular processes
- Researchers at University College London have found aminoacyl-thiols can link amino acids to RNA without involving enzymes
- Laboratory experiments showed amino acids attaching directly to RNA in water, resembling plausible early earth conditions
- This chemistry revealed astonishing selectivity, consistently favouring RNA over more reactive molecules, surprising many chemists
- A chemical switch separated RNA-charging from peptide-linking, mimicking distinct sequential stages of modern protein synthesis
- The findings suggest such reactions occurred in primordial ponds or frozen pools, initiating primitive coded peptide synthesis



Representative image of a single strand of RNA folding back on itself.

lectivity that has astonished chemists.

“It’s remarkable that RNA, which is relatively unreactive, undergoes aminoacylation in water despite the presence of more reactive species,” said Tom Sheppard, a chemist at UCL not involved in the study.

He added that the chemistry appears robust across many amino acids and simple enough that other labs should be able to reproduce it. By giving RNA a clear chemical advantage, aminoacyl-thiols may have paved the way for the first steps of protein synthesis.

For scientists who study life’s beginnings, the discovery is more than a clever bit of chemistry: it’s a breakthrough that ties two of life’s building blocks together in conditions that could have existed billions

of years ago.

“Previous research often looked at either how peptides (chains of amino acids) could form or how nucleotides could form, but rarely how the two might interact,” Sheppard said. “What makes this work significant is that it shows RNA and amino acids talking to each other directly, without any intermediary.”

“This opens a lot of exciting directions to investigate the origins and evolution of protein translation,” Matthew Powner, who led the work, said.

Selectivity, surprises

What struck the researchers the most was not just that the reaction worked but that it showed such uncanny precision. The amino acids latched onto RNA ends in a way that reflects how life does to this day.

Powner said the reactivity was the heart of the discovery: “If I had to pick only one thing that was the most astounding, it would be the unexpected reactivity between aminoacyl-thiols and RNA that led to unprecedented selectivity at neutral pH.”

Sheppard pointed out another interesting facet. Thioesters were once thought to be simple precursors to peptides, but the study found that they are not good at making peptides directly. “Instead,” he said, “they may have played a different role: guiding amino acids onto RNA.”

Even more intriguingly, the team discovered that a simple chemical switch could separate two key stages of modern protein synthesis. With thioesters, amino acids preferentially attach to RNA. But when

those same molecules are converted into thioacids, the chemistry flips, favouring the formation of peptide bonds instead. That means the two steps of protein building – RNA-charging and peptide-linking – can be carried out in the same solution but under distinct chemical modes of activation.

The team did not stop there. They also explored where these aminoacyl-thiols might have come from.

Their experiments suggested they could form from simple precursors such as nitriles and thiols, even under frigid conditions that concentrated the ingredients and sped up reactions.

This implies the chemistry linking amino acids to RNA may not have required rare settings: it could have unfolded in the ponds or frozen pools of a young earth.

Both Powner and Sheppard agreed that this chemistry is just a starting point. The peptides made so far are very short, and figuring out how to extend them will be the next challenge.

“One can imagine a gradual evolution of complexity in the aminoacylation reaction,” Sheppard said, “leading to increasing levels of control by RNA over the peptides that could be formed, and hence the development of a primitive coded peptide synthesis.” (Anirban Mukhopadhyay is a geneticist by training and science communicator from Delhi)

How RNA, amino acids may have linked up on early earth

प्रारंभिक पृथ्वी पर RNA और अमीनो एसिड कैसे जुड़े हो सकते हैं

- By showing **amino acids** latch directly onto **RNA** without **enzymes**, researchers have provided striking evidence that life’s essential partnership between **genes** and **proteins** might have begun in ordinary ponds or frozen pools billions of years ago

यह दिखाकर कि अमीनो एसिड सीधे RNA से जुड़ते हैं बिना एंजाइम्स के, शोधकर्ताओं ने यह मजबूत प्रमाण दिया है कि जीवन की आवश्यक साझेदारी जीन और प्रोटीन्स के बीच अरबों साल पहले साधारण तालाबों या जमे हुए जलाशयों में शुरू हो सकती थी।



- Life depends on a partnership between **RNA**, which stores instructions, and **proteins**, which do the work of building and running cells.
जीवन **RNA**, जो निर्देश संग्रहीत करता है, और **प्रोटीन्स**, जो कोशिकाओं को बनाने और चलाने का काम करते हैं, के बीच साझेदारी पर निर्भर करता है।
- But how this partnership began has long puzzled scientists.
लेकिन यह साझेदारी कैसे शुरू हुई, यह लंबे समय से वैज्ञानिकों के लिए एक पहेली रही है।
- To make a **protein**, constituent **amino acids** must be linked in the order encoded by **RNA**.
एक **प्रोटीन** बनाने के लिए, घटक **अमीनो एसिड** को **RNA** द्वारा दिए गए क्रम में जोड़ा जाना चाहिए।
- Today, a complex biological machine called the **ribosome** handles this task — but only after each **amino acid** is first “loaded” onto an **RNA adapter**.
आज, एक जटिल जैविक मशीन जिसे **राइबोसोम** कहा जाता है, यह कार्य संभालती है — लेकिन केवल तब जब प्रत्येक **अमीनो एसिड** पहले एक **RNA एडेप्टर** पर “लोड” किया जाता है।
- The catch is that the **enzymes** responsible for this loading are themselves **proteins**, creating a **chicken-and-egg puzzle** that has intrigued chemists for decades.
समस्या यह है कि इस लोडिंग के लिए जिम्मेदार **एंजाइम्स** स्वयं **प्रोटीन** हैं, जिससे एक **मुर्गी-अंडा पहेली** बनती है, जिसने दशकों से रसायनविदों को उलझा रखा है।
- A new study in **Nature** offers a glimpse of how this riddle might have been resolved.
नेचर में एक नए अध्ययन से यह झलक मिलती है कि यह पहेली कैसे हल हो सकती थी।
- Researchers at **University College London** found that simple molecules called **aminoacyl-thiols** can link **amino acids** to **RNA** without **enzymes**.
यूनिवर्सिटी कॉलेज लंदन के शोधकर्ताओं ने पाया कि **अमीनोएसिल-थियोल्स** नामक सरल अणु **एंजाइम्स** के बिना **अमीनो एसिड** को **RNA** से जोड़ सकते हैं।
- Think of **amino acids** as beads and **RNA** as the thread.
अमीनो एसिड को मोतियों और **RNA** को धागे के रूप में सोचें।
- In cells today, **enzymes** act as skilled hands to string them together.
आज कोशिकाओं में, **एंजाइम्स** कुशल हाथों की तरह कार्य करते हैं जो इन्हें आपस में जोड़ते हैं।
- The team showed that, in the right conditions, with **aminoacyl-thiols** the beads can fasten themselves to the thread in plain water, much like on the early earth.
टीम ने दिखाया कि सही परिस्थितियों में, **अमीनोएसिल-थियोल्स** के साथ ये मोती सादे पानी में खुद ही धागे से जुड़ सकते हैं, बिल्कुल वैसे ही जैसे प्रारंभिक पृथ्वी पर हुआ होगा।
- More strikingly, this **aminoacyl-thiol chemistry** favours **RNA** over other, more reactive molecules, which is an unexpected selectivity that has astonished chemists.
और भी चौंकाने वाली बात यह है कि यह **अमीनोएसिल-थियोल रसायन** अन्य, अधिक सक्रिय अणुओं की तुलना में **RNA** को प्राथमिकता देता है, जो एक अप्रत्याशित चयनशीलता है और जिसने रसायनविदों को चकित कर दिया है।
- “It’s remarkable that **RNA**, which is relatively unreactive, undergoes **aminoacylation** in water despite the presence of more reactive species,” said **Tom Sheppard**, a chemist at **UCL** not involved in the study.
“यह उल्लेखनीय है कि **RNA**, जो अपेक्षाकृत कम प्रतिक्रियाशील है, अधिक सक्रिय अणुओं की उपस्थिति के बावजूद पानी में **अमीनोएसिलेशन** से गुजरता है,” **UCL** के रसायनविद **टॉम शेपर्ड** ने कहा, जो इस अध्ययन में शामिल नहीं थे।
- He added that the chemistry appears robust across many **amino acids** and simple enough that other labs should be able to reproduce it.
उन्होंने कहा कि यह रसायन कई **अमीनो एसिड्स** में मजबूत दिखाई देती है और इतनी सरल है कि अन्य प्रयोगशालाएं इसे दोहरा सकें।
- By giving **RNA** a clear chemical advantage, **aminoacyl-thiols** may have paved the way for the first steps of **protein synthesis**.
RNA को स्पष्ट रासायनिक लाभ देकर, **अमीनोएसिल-थियोल्स** ने **प्रोटीन संश्लेषण** के पहले चरणों के लिए मार्ग प्रशस्त किया होगा।
- For scientists who study life’s beginnings, the discovery is more than a clever bit of chemistry: it’s a **breakthrough** that ties two of life’s building blocks together in conditions that could have existed billions of years ago.
उन वैज्ञानिकों के लिए जो जीवन की शुरुआत का अध्ययन करते हैं, यह खोज केवल एक चतुर रासायनिक प्रक्रिया नहीं है: यह एक **महत्वपूर्ण खोज** है जो जीवन के दो निर्माण खंडों को जोड़ती है, ऐसी परिस्थितियों में जो अरबों साल पहले मौजूद हो सकती थीं।



- “Previous research often looked at either how **peptides** (chains of **amino acids**) could form or how **nucleotides** could form, but rarely how the two might interact,” **Sheppard** said.
“पिछले शोध अक्सर यह देखते थे कि **पेप्टाइड्स** (**अमीनो एसिड्स** की श्रृंखलाएं) कैसे बन सकते हैं या **न्यूक्लियोटाइड्स** कैसे बन सकते हैं, लेकिन शायद ही कभी यह देखा गया कि दोनों एक-दूसरे के साथ कैसे संपर्क कर सकते हैं,” **शेपर्ड** ने कहा।
- “What makes this work significant is that it shows **RNA** and **amino acids** talking to each other directly, without any intermediary.”
“इस कार्य को महत्वपूर्ण बनाने वाली बात यह है कि यह दिखाता है कि **RNA** और **अमीनो एसिड्स** सीधे एक-दूसरे से बातचीत कर रहे हैं, बिना किसी मध्यस्थ के।”
- “This opens a lot of exciting directions to investigate the origins and evolution of **protein translation**,” **Matthew Powner**, who led the work, said.
“यह **प्रोटीन अनुवाद** की उत्पत्ति और विकास की जांच के लिए कई रोमांचक दिशाओं को खोलता है,” इस काम का नेतृत्व करने वाले **मैथ्यू पोन्नेर** ने कहा।

Selectivity, surprises चयनशीलता, आश्चर्य

- What struck the researchers the most was not just that the reaction worked but that it showed such uncanny precision.
शोधकर्ताओं को सबसे अधिक आश्चर्य इस बात का हुआ कि प्रतिक्रिया केवल सफल ही नहीं हुई, बल्कि इसने आश्चर्यजनक सटीकता भी दिखाई।
- The **amino acids** latched onto **RNA** ends in a way that reflects how life does to this day.
अमीनो एसिड्स ने **RNA** के सिरों से ऐसे जुड़ाव किया जो यह दर्शाता है कि आज भी जीवन में यह प्रक्रिया कैसे होती है।
- **Powner** said the reactivity was the heart of the discovery:
पोन्नेर ने कहा कि प्रतिक्रियाशीलता इस खोज का मुख्य भाग थी:
- “If I had to pick only one thing that was the most astounding, it would be the unexpected reactivity between **aminoacyl-thiols** and **RNA** that led to unprecedented selectivity at neutral pH.”
“यदि मुझे केवल एक सबसे आश्चर्यजनक बात चुननी होती, तो वह **अमीनोएसिल-थियोल्स** और **RNA** के बीच की अप्रत्याशित प्रतिक्रियाशीलता होती जिसने न्यूट्रल pH पर अभूतपूर्व चयनशीलता उत्पन्न की।”
- **Sheppard** pointed out another interesting facet.
शेपर्ड ने एक और दिलचस्प पहलू की ओर इशारा किया।
- **Thioesters** were once thought to be simple precursors to **peptides**, but the study found that they are not good at making **peptides** directly.
थियोएस्टर्स को एक समय **पेप्टाइड्स** के सरल अग्रदूत माना जाता था, लेकिन अध्ययन में पाया गया कि वे सीधे **पेप्टाइड्स** बनाने में अच्छे नहीं हैं।
- “Instead,” he said, “they may have played a different role: guiding **amino acids** onto **RNA**.”
“इसके बजाय,” उन्होंने कहा, “उन्होंने एक अलग भूमिका निभाई हो सकती है: **अमीनो एसिड्स** को **RNA** पर मार्गदर्शन करना।”
- Even more intriguingly, the team discovered that a simple **chemical switch** could separate two key stages of modern **protein synthesis**.
और भी रोचक बात यह है कि टीम ने खोज की कि एक साधारण **रासायनिक स्विच** आधुनिक **प्रोटीन संश्लेषण** के दो प्रमुख चरणों को अलग कर सकता है।
- With **thioesters**, **amino acids** preferentially attach to **RNA**.
थियोएस्टर्स के साथ, **अमीनो एसिड्स** प्राथमिकता से **RNA** से जुड़ते हैं।
- But when those same molecules are converted into **thioacids**, the chemistry flips, favouring the formation of **peptide bonds** instead.
लेकिन जब वही अणु **थियोएसिड्स** में परिवर्तित होते हैं, तो रसायन विज्ञान पलट जाता है और इसके बजाय **पेप्टाइड बॉन्ड्स** के निर्माण को प्राथमिकता देता है।
- That means the two steps of protein building — **RNA-charging** and **peptide-linking** — can be carried out in the same solution but under distinct chemical modes of activation.
इसका मतलब है कि प्रोटीन निर्माण के दो चरण — **RNA-चार्जिंग** और **पेप्टाइड-लिंकिंग** — एक ही घोल में लेकिन अलग-अलग रासायनिक सक्रियण तरीकों के तहत किए जा सकते हैं।



- The team did not stop there. They also explored where these **aminoacyl-thiols** might have come from.
टीम यहीं नहीं रुकी। उन्होंने यह भी खोजा कि ये **अमीनोएसिल-थिओल्स** कहां से आए होंगे।
- Their experiments suggested they could form from simple precursors such as **nitriles** and **thiols**, even under frigid conditions that concentrated the ingredients and sped up reactions. उनके प्रयोगों से पता चला कि वे सरल अग्रदूतों जैसे **नाइट्राइल्स** और **थिओल्स** से बन सकते हैं, यहां तक कि बेहद ठंडी परिस्थितियों में भी, जो घटकों को केंद्रित करती हैं और प्रतिक्रियाओं को तेज करती हैं।
- This implies the chemistry linking **amino acids** to **RNA** may not have required rare settings: it could have unfolded in the ponds or frozen pools of a young earth.
इसका तात्पर्य है कि **अमीनो एसिड्स** को **RNA** से जोड़ने वाली रसायन विज्ञान को दुर्लभ परिस्थितियों की आवश्यकता नहीं थी: यह प्रारंभिक पृथ्वी के तालाबों या जमे हुए जलाशयों में घटित हो सकता था।
- Both **Powner** and **Sheppard** agreed that this chemistry is just a starting point.
पोनर और **शेपर्ड** दोनों सहमत थे कि यह रसायन विज्ञान सिर्फ एक प्रारंभिक बिंदु है।
- The **peptides** made so far are very short, and figuring out how to extend them will be the next challenge.
अब तक बनाए गए **पेप्टाइड्स** बहुत छोटे हैं, और यह समझना कि उन्हें कैसे बढ़ाया जाए, अगली चुनौती होगी।
- “One can imagine a gradual evolution of complexity in the **aminoacylation reaction**,”
Sheppard said,
“कोई व्यक्ति **अमीनोएसिलेशन प्रतिक्रिया** में जटिलता के क्रमिक विकास की कल्पना कर सकता है,” **शेपर्ड** ने कहा,
- “leading to increasing levels of control by **RNA** over the **peptides** that could be formed, and hence the development of a primitive coded **peptide synthesis**.”
“जिससे **RNA** द्वारा बनने वाले **पेप्टाइड्स** पर नियंत्रण का स्तर बढ़ेगा, और इस प्रकार एक आदिम कोडित **पेप्टाइड संश्लेषण** का विकास होगा।”

PATRIOTICIAS



On the move with green hydrogen

GS III: S&T



SPEAKING OF SCIENCE

D. Balasubramanian

The Indian Railways recently announced that a hydrogen-powered train, developed at the Integral Coach Factory in Chennai, has successfully completed all tests. This is a welcome sign of progress for the National Green Hydrogen Mission, which aims to produce at least five million metric tonnes of green hydrogen per year by the year 2030, a milestone on the way to achieving nationwide net zero emissions by 2070.

The train will soon be carrying passengers between Jind and Sonipat on an 89-km route in Haryana. This project will rely on hydrogen produced in Jind by a 1-MW polymer

electrolyte membrane electrolyser that produces 430 kg of hydrogen every day. The hydrogen will re-fill fuel tanks on the train, where fuel cells will convert the hydrogen to electricity that runs the train's electric motors.

The principle is quite simple. An electrolyser splits a water molecule into oxygen, protons, and electrons. In an electrochemical reaction at the negative electrode (called the anode), molecular oxygen is released, and the electrons liberated are conducted to the cathode via an external circuit. The polymer electrolyte membrane between the cathode and the anode is selective and only allows protons to pass through to the cathode, where they unite with the electrons to form hydrogen molecules. These rise as a gas and are collected, compressed, and stored. The mem-



A facility in Jind will soon produce green hydrogen to be used as fuel for a locomotive. MIGUEL BAIXAULI/JUNSPASH

brane, typically a fluoropolymer such as Nafion (related to Teflon) is an excellent insulator, and electrons will not pass. The hydrogen and oxygen formed are clearly separated.

In the locomotive, as in a hydrogen-powered automobile, the above reaction is reversed in the hydrogen fuel cell. Hydrogen is brought to the anode, where each molecule is ca-

lytically split into two protons and two electrons. The protons pass through the membrane to the cathode, where they meet oxygen in air and the electrons that are brought through an external circuit from the anode. Water is formed. The electrons flowing through the external circuit constitute the electric current that powers the locomotive.

There is a key difference

between the chemical reactions in the fuel cell and in the electrolyser. The chemistry between hydrogen and oxygen is spontaneous, a reaction waiting to happen. Water, however, will not split into the two elements by itself. Electrical current must be supplied to provide the energy for this electrochemical reaction.

To produce green hydrogen, the electricity for the electrolysers has to come from renewable sources, such as solar panels or wind turbines. New sources of renewable energy will be needed to meet the goals of the National Green Hydrogen Mission. Also under way are exciting attempts to produce hydrogen in microbial electrolytic cells, where electrochemically active microbes grow on anodes and oxidize organic matter – agricultural residues, even wastewater – and

pass the electrons generated to the anode (*Current Science*, vol. 128, p. 133, 2025).

The catalysis steps require expensive materials such as platinum, iridium, etc. Ongoing research is aimed at replacing these with inexpensive nickel, cobalt, or even iron. In early work towards cheap hydrogen generation, the group of C.N.R. Rao at the Jawaharlal Nehru Centre for Advanced Scientific Research designed nickel-nickel hydroxide-graphite electrodes with a water-splitting capability comparable to platinum electrodes (*Proc. Natl. Acad. Sci., USA*, vol. 114, 2017). Combining such developments with solar and microbe-driven processes can produce a fuel that is both green and inexpensive.

(The article was written in collaboration with Sushil Chandani)

On the move with green hydrogen ग्रीन हाइड्रोजन के साथ प्रगति पर

- The **Indian Railways** recently announced that a **hydrogen-powered train**, developed at the **Integral Coach Factory** in **Chennai**, has successfully completed all tests.
भारतीय रेलवे ने हाल ही में घोषणा की कि चेन्नई स्थित इंटीग्रल कोच फैक्ट्री में विकसित एक हाइड्रोजन-चालित ट्रेन ने सभी परीक्षण सफलतापूर्वक पूरे कर लिए हैं।
- This is a welcome sign of progress for the **National Green Hydrogen Mission**, which aims to produce at least **five million metric tonnes** of **green hydrogen** per year by the year **2030**, a milestone on the way to achieving nationwide **net zero emissions** by **2070**.
यह राष्ट्रीय ग्रीन हाइड्रोजन मिशन के लिए प्रगति का स्वागत योग्य संकेत है, जिसका लक्ष्य वर्ष 2030 तक प्रति वर्ष कम से कम पांच मिलियन मीट्रिक टन ग्रीन हाइड्रोजन का उत्पादन करना है, जो 2070 तक देशव्यापी नेट जीरो उत्सर्जन प्राप्त करने की दिशा में एक महत्वपूर्ण पड़ाव है।
- The train will soon be carrying passengers between **Jind** and **Sonipat** on an **89-km route** in **Haryana**.
यह ट्रेन जल्द ही हरियाणा में जिंद और सोनीपत के बीच 89 किलोमीटर मार्ग पर यात्रियों को ले जाएगी।
- This project will rely on hydrogen produced in **Jind** by a **1-MW polymer electrolyte membrane electrolyser** that produces **430 kg of hydrogen** every day.
यह परियोजना जिंद में निर्मित 1-मेगावाट पॉलिमर इलेक्ट्रोलाइट मेम्ब्रेन इलेक्ट्रोलाइज़र द्वारा प्रतिदिन 430 किलोग्राम हाइड्रोजन के उत्पादन पर निर्भर करेगी।
- The hydrogen will re-fill fuel tanks on the train, where **fuel cells** will convert the hydrogen to **electricity** that runs the train's **electric motors**.
हाइड्रोजन ट्रेन के फ्यूल टैंकों को फिर से भरेगा, जहाँ फ्यूल सेल्स हाइड्रोजन को बिजली में परिवर्तित करेंगे, जो ट्रेन के इलेक्ट्रिक मोटर्स को चलाती है।
- The principle is quite simple.
सिद्धांत काफी सरल है।
- An **electrolyser** splits a water molecule into **oxygen**, **protons**, and **electrons**.
एक इलेक्ट्रोलाइज़र पानी के अणु को ऑक्सीजन, प्रोटॉन्स, और इलेक्ट्रॉन्स में विभाजित करता है।
- In an electrochemical reaction at the negative electrode (called the **anode**), molecular oxygen is released, and the electrons liberated are conducted to the **cathode** via an external circuit.



ऋणात्मक इलेक्ट्रोड (एनोड) पर एक विद्युत रासायनिक प्रतिक्रिया में, आणविक ऑक्सीजन मुक्त होती है और मुक्त हुए इलेक्ट्रॉन्स को एक बाहरी परिपथ के माध्यम से कैथोड तक ले जाया जाता है।

- The **polymer electrolyte membrane** between the **cathode** and the **anode** is selective and only allows **protons** to pass through to the cathode, where they unite with the electrons to form **hydrogen molecules**.
कैथोड और एनोड के बीच की पॉलिमर इलेक्ट्रोलाइट मेम्ब्रेन चयनात्मक होती है और केवल प्रोटॉन्स को कैथोड तक गुजरने की अनुमति देती है, जहां वे इलेक्ट्रॉन्स के साथ मिलकर हाइड्रोजन अणु बनाते हैं।
- These rise as a gas and are collected, compressed, and stored.
ये गैस के रूप में ऊपर उठते हैं और एकत्रित, संपीड़ित तथा संग्रहित किए जाते हैं।
- The membrane, typically a **fluoropolymer** such as **Nafion** (related to **Teflon**) is an excellent insulator, and electrons will not pass.
मेम्ब्रेन, आमतौर पर एक फ्लोरोपॉलिमर जैसे **नैफियॉन** (जो **टेफ्लॉन** से संबंधित है) होता है, जो एक उत्कृष्ट इंसुलेटर है और इलेक्ट्रॉन्स को गुजरने नहीं देता।
- The **hydrogen** and **oxygen** formed are clearly separated.
निर्मित हाइड्रोजन और ऑक्सीजन को स्पष्ट रूप से अलग कर दिया जाता है।
- In the locomotive, as in a **hydrogen-powered automobile**, the above reaction is reversed in the **hydrogen fuel cell**.
लोकोमोटिव में, जैसे कि हाइड्रोजन-चालित वाहन में, उपरोक्त प्रतिक्रिया हाइड्रोजन फ्यूल सेल में उलट जाती है।
- Hydrogen is brought to the **anode**, where each molecule is catalytically split into **two protons** and **two electrons**.
हाइड्रोजन को एनोड पर लाया जाता है, जहां प्रत्येक अणु को उत्प्रेरक की सहायता से दो प्रोटॉन्स और दो इलेक्ट्रॉन्स में विभाजित किया जाता है।
- The **protons** pass through the membrane to the **cathode**, where they meet **oxygen** in air and the **electrons** that are brought through an external circuit from the **anode**.
प्रोटॉन्स मेम्ब्रेन से होकर कैथोड तक पहुंचते हैं, जहां वे हवा में मौजूद ऑक्सीजन और एनोड से बाहरी परिपथ के माध्यम से लाए गए इलेक्ट्रॉन्स से मिलते हैं।
- **Water** is formed.
पानी का निर्माण होता है।
- The electrons flowing through the external circuit constitute the **electric current** that powers the locomotive.
बाहरी परिपथ से प्रवाहित होने वाले इलेक्ट्रॉन्स वह विद्युत धारा बनाते हैं जो लोकोमोटिव को शक्ति प्रदान करती है।
- There is a key difference between the chemical reactions in the **fuel cell** and in the **electrolyser**.
फ्यूल सेल और इलेक्ट्रोलाइज़र में रासायनिक प्रतिक्रियाओं के बीच एक महत्वपूर्ण अंतर होता है।
- The chemistry between **hydrogen** and **oxygen** is **spontaneous**, a reaction waiting to happen.
हाइड्रोजन और ऑक्सीजन के बीच की रसायन स्वतःस्फूर्त होती है, एक प्रतिक्रिया जो होने के लिए तैयार रहती है।
- **Water**, however, will not split into the two elements by itself.
हालांकि, पानी स्वयं को दो तत्वों में विभाजित नहीं करेगा।
- **Electrical current** must be supplied to provide the energy for this electrochemical reaction.
इस विद्युत रासायनिक प्रतिक्रिया के लिए ऊर्जा प्रदान करने हेतु विद्युत धारा की आपूर्ति की जानी चाहिए।
- To produce **green hydrogen**, the electricity for the electrolyzers has to come from **renewable sources**, such as **solar panels** or **wind turbines**.
ग्रीन हाइड्रोजन का उत्पादन करने के लिए, इलेक्ट्रोलाइज़र्स के लिए बिजली नवीकरणीय स्रोतों जैसे सोलर पैनल्स या विंड टर्बाइन्स से आनी चाहिए।
- New sources of **renewable energy** will be needed to meet the goals of the **National Green Hydrogen Mission**.
राष्ट्रीय ग्रीन हाइड्रोजन मिशन के लक्ष्यों को पूरा करने के लिए नवीकरणीय ऊर्जा के नए स्रोतों की आवश्यकता होगी।
- Also under way are exciting attempts to produce hydrogen in **microbial electrolytic cells**, where **electrochemically active microbes** grow on anodes and oxidize **organic matter** — agricultural residues, even wastewater — and pass the **electrons** generated to the **anode**



(Current Science, vol. 128, p. 133, 2025).

माइक्रोबियल इलेक्ट्रोलाइटिक सेल्स में हाइड्रोजन उत्पन्न करने के रोमांचक प्रयास भी चल रहे हैं, जहां विद्युत रासायनिक रूप से सक्रिय सूक्ष्मजीव एनोड्स पर बढ़ते हैं और कार्बनिक पदार्थों — कृषि अवशेष, यहां तक कि अपशिष्ट जल — का ऑक्सीकरण करते हैं और उत्पन्न इलेक्ट्रॉन्स को एनोड तक पहुंचाते हैं (करंट साइंस, खंड 128, पृष्ठ 133, 2025)।

- The catalysis steps require expensive materials such as **platinum, iridium, etc.**
कैटालिसिस चरणों के लिए प्लैटिनम, इरिडियम आदि जैसे महंगे पदार्थों की आवश्यकता होती है।
- Ongoing research is aimed at replacing these with inexpensive **nickel, cobalt, or even iron.**
चल रहे शोध का लक्ष्य इन्हें सस्ते निकल, कोबाल्ट, या यहां तक कि लौह (आयरन) से बदलना है।
- In early work towards cheap hydrogen generation, the group of **C.N.R. Rao** at the **Jawaharlal Nehru Centre for Advanced Scientific Research** designed **nickel-nickel hydroxide-graphite electrodes** with a **water-splitting capability** comparable to **platinum electrodes** (Proc. Natl. Acad. Sci., USA, vol. 114, 2017).
सस्ते हाइड्रोजन उत्पादन की दिशा में प्रारंभिक कार्य में, जवाहरलाल नेहरू सेंटर फॉर एडवांस्ड साइंटिफिक रिसर्च में सी.एन.आर. राव के समूह ने निकल-निकल हाइड्रॉक्साइड-ग्रेफाइट इलेक्ट्रोड्स डिज़ाइन किए, जिनकी पानी-विभाजन क्षमता प्लैटिनम इलेक्ट्रोड्स के बराबर थी (प्रोक. नैटल. एकेड. साइ., यूएसए, खंड 114, 2017)।
- Combining such developments with **solar** and **microbe-driven processes** can produce a fuel that is both **green** and **inexpensive.**
ऐसे विकासों को सौर और सूक्ष्मजीव-चालित प्रक्रियाओं के साथ मिलाकर ऐसा ईंधन उत्पन्न किया जा सकता है जो ग्रीन और सस्ता दोनों हो।

PATRIOTICIAS