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THE HINDU NEWSPAPER

23 OCTOBER 2025

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PCS Special:	23 October 2025
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2.	Space scientist Eknath Vasant Chitnis passes away at 100 अंतरिक्ष वैज्ञानिक एकनाथ वसंत चितनिस का 100 वर्ष की आयु में निधन

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3.	OpenAI unveils AI powered search browser 'Atlas' in a challenge to Google ओपनएआई ने गूगल को चुनौती देते हुए AI संचालित सर्च ब्राउज़र 'एटलस' लॉन्च किया
4.	Imprisoned journalists win EU's top human rights award कैद किए गए पत्रकारों ने यूरोपीय संघ का सर्वोच्च मानवाधिकार पुरस्कार जीता

Kerala to be first State 'free of extreme poverty'

PCS
GS III: Poverty
THIRUVANANTHAPURAM

Kerala Chief Minister Pinarayi Vijayan will officially declare the State free from extreme poverty at a function to be held at Central Stadium in the capital on November 1.

Minister for Local Self-Governments M.B. Rajesh said at a press conference on Wednesday that the extreme poverty eradication programme began in 2021 as one of the first Cabinet decisions of the LDF government.

"Kerala will become the first State in the country to achieve this landmark," the Minister said.

Kerala to be first State 'free of extreme poverty'

केरल होगा पहला राज्य 'चरम गरीबी से मुक्त'

• Kerala Chief Minister **Pinarayi Vijayan** will officially declare the State free from **extreme poverty** at a function to be held at **Central Stadium** in the capital on **November 1**.

केरल के मुख्यमंत्री **पिनराई विजयन** राजधानी के **सेंट्रल स्टेडियम** में **1 नवंबर** को होने वाले एक समारोह में राज्य को **चरम गरीबी से मुक्त** घोषित करेंगे।

• Minister for **Local Self-Governments M.B. Rajesh** said at a press conference on **Wednesday** that the **extreme poverty eradication programme** began in **2021** as one of the first **Cabinet decisions** of the **LDF government**.
स्थानीय स्वशासन मंत्री एम.बी. राजेश ने **बुधवार** को एक प्रेस कॉन्फ्रेंस में कहा कि **चरम गरीबी उन्मूलन कार्यक्रम** की शुरुआत **2021** में **एलडीएफ सरकार** के **पहले कैबिनेट निर्णयों** में से एक के रूप में हुई थी।

• "Kerala will become the **first State in the country** to achieve this **landmark**," the Minister said.

मंत्री ने कहा, "केरल इस **उपलब्धि** को हासिल करने वाला देश का **पहला राज्य** बनेगा।"



Space scientist Eknath Vasant Chitnis passes away at 100

PCS

Press Trust of India
PUNE

Renowned space scientist Eknath Vasant Chitnis died on Wednesday at his residence in Pune, his family members said.

Chitnis, who had completed 100 years, was unwell for the last few days and suffered a heart attack in the morning, they said.

He had played a key role in the early years of the Indian National Committee for Space Research which later transformed into the Indian Space Research Organisation (ISRO).

Space scientist Eknath Vasant Chitnis passes away at 100 अंतरिक्ष वैज्ञानिक एकनाथ वसंत चितनिस का 100 वर्ष की आयु में निधन

• Renowned space scientist Eknath Vasant Chitnis died on Wednesday at his residence in Pune, his family members said.

प्रख्यात अंतरिक्ष वैज्ञानिक एकनाथ वसंत चितनिस का बुधवार को पुणे स्थित अपने आवास पर निधन हो गया, उनके परिवार के सदस्यों ने बताया।

• Chitnis, who had completed 100 years, was unwell for the last few days and suffered a heart attack in the morning, they said.

चितनिस, जिन्होंने 100 वर्ष पूरे किए थे, पिछले कुछ दिनों से अस्वस्थ थे और सुबह उन्हें हृदयाघात आया, उन्होंने बताया।

• He had played a key role in the early years of the Indian National Committee for Space Research, which later transformed into the Indian Space Research Organisation (ISRO).

उन्होंने भारतीय राष्ट्रीय अंतरिक्ष अनुसंधान समिति के शुरुआती वर्षों में महत्वपूर्ण भूमिका निभाई थी, जो बाद में भारतीय अंतरिक्ष अनुसंधान संगठन (ISRO) में बदल गई।

OpenAI unveils AI powered search browser 'Atlas' in a challenge to Google

PCS

Agence France-Presse
SAN FRANCISCO, U.S.

ChatGPT-maker OpenAI announced an "Atlas" search browser, leveraging its artificial intelligence prowess in a direct challenge to Google Chrome.

"This is an AI-powered web browser built around ChatGPT," OpenAI chief Sam Altman said in a streamed presentation.

OpenAI has ramped up its challenge to Google, which has responded by rapidly building more AI capabilities into search and across its platform.

Mr. Altman and a team of executives demonstrat-



Agent mode will only be available to users of paid Plus or Pro versions of ChatGPT.

ed an "agent" mode that has a chatbot to conduct searches on a user's behalf.

Mr. Altman said that in agent mode, ChatGPT uses the web browser independ-

dently, returning with what it finds. "It's got all your stuff and is clicking around," Mr. Altman said.

"You can watch it or not, you don't have to, but it's using the Internet for you." Atlas will go live on computers powered by Apple's operating system free of charge, but agent mode will only be available to users of paid Plus or Pro versions of ChatGPT, according to Mr. Altman.

"We want to bring this to Windows and to mobile devices as quickly as we can," Mr. Altman said, without providing a timeline. "This is still early days for this project."



OpenAI unveils AI powered search browser 'Atlas' in a challenge to Google ओपनएआई ने गूगल को चुनौती देते हुए AI संचालित सर्च ब्राउज़र 'एटलस' लॉन्च किया



- ChatGPT-maker **OpenAI** announced an “Atlas” search browser, leveraging its artificial intelligence prowess in a direct challenge to **Google Chrome**.
ChatGPT निर्माता OpenAI ने “एटलस” सर्च ब्राउज़र की घोषणा की, जो अपनी कृत्रिम बुद्धिमत्ता क्षमता का उपयोग करते हुए गूगल क्रोम को सीधे चुनौती देता है।
- “This is an AI-powered web browser built around ChatGPT,” OpenAI chief **Sam Altman** said in a streamed presentation.
“यह AI-संचालित वेब ब्राउज़र है जो ChatGPT के इर्द-गिर्द बनाया गया है,” OpenAI प्रमुख सैम ऑल्टमैन ने स्ट्रीम की गई प्रस्तुति में कहा।
- OpenAI has ramped up its challenge to **Google**, which has responded by rapidly building more AI capabilities into search and across its platform.
OpenAI ने गूगल के लिए अपनी चुनौती बढ़ा दी है, जिस पर गूगल ने अपने प्लेटफॉर्म में खोज और अन्य सेवाओं में तेजी से अधिक AI क्षमताओं को शामिल करके जवाब दिया है।
- Mr. **Altman** and a team of executives demonstrated an “agent” mode that has a chatbot to conduct searches on a user’s behalf.
श्री ऑल्टमैन और उनके कार्यकारी दल ने एक “एजेंट” मोड का प्रदर्शन किया, जिसमें उपयोगकर्ता की ओर से खोज करने के लिए चैटबॉट होता है।
- Mr. **Altman** said that in agent mode, ChatGPT uses the web browser independently, returning with what it finds. “It’s got all your stuff and is clicking around,” Mr. **Altman** said.
श्री ऑल्टमैन ने कहा कि एजेंट मोड में, ChatGPT स्वतंत्र रूप से वेब ब्राउज़र का उपयोग करता है और जो कुछ भी इसे मिलता है वह लौटाता है। “यह आपके सभी डेटा को संभाल रहा है और ब्राउज़र कर रहा है,” श्री ऑल्टमैन ने कहा।
- “You can watch it or not, you don’t have to, but it’s using the Internet for you.”
“आप इसे देख सकते हैं या नहीं, आपको देखने की आवश्यकता नहीं है, लेकिन यह आपके लिए इंटरनेट का उपयोग कर रहा है।”
- Atlas will go live on computers powered by Apple’s operating system free of charge, but agent mode will only be available to users of paid Plus or Pro versions of ChatGPT, according to Mr. **Altman**.
एटलस एप्पल ऑपरेटिंग सिस्टम से संचालित कंप्यूटरों पर मुफ्त में लाइव होगा, लेकिन एजेंट मोड केवल ChatGPT के भुगतान किए गए प्लस या प्रो संस्करणों के उपयोगकर्ताओं के लिए उपलब्ध होगा, श्री ऑल्टमैन के अनुसार।
- “We want to bring this to Windows and to mobile devices as quickly as we can,” Mr. **Altman** said, without providing a timeline. “It is still early days for this project.”
“हम इसे जितनी जल्दी हो सके विंडोज और मोबाइल डिवाइसों पर लाना चाहते हैं,” श्री ऑल्टमैन ने कहा, बिना किसी समयसीमा के। “यह परियोजना के लिए अभी भी शुरुआती चरण हैं।”



Imprisoned journalists win EU's top human rights award

PCS

Associated Press

BRUSSELS

Two journalists, one imprisoned in Belarus and the other in Georgia, have won the European Union's top human rights honour, the Sakharov Prize, European Parliament President Roberta Metsola announced on Wednesday.

Andrzej Poczobut is a correspondent for the influential Polish newspaper *Gazeta Wyborcza*. He was convicted of "harming Belarus' national security" and sentenced to eight years, which he is serving in the Novopolotsk penal colony.

Mzia Amaghlobeli, a prominent journalist who founded two of Georgia's independent media outlets, was convicted in August of slapping a police chief during an anti-go-



Long fight: Georgian journalist Mzia Amaghlobeli is one of the recipients of this year's Sakharov human rights prize. AFP

vernment protest.

She was sentenced to two years in prison in a case that was condemned by rights groups as an attempt to curb media freedom.

"Both are journalists currently in prison on trumped up charges simply for doing their work and for speaking out against injustice. Their courage has

made them symbols of the struggle for freedom and democracy," Ms. Metsola said at the parliament in Strasbourg, France.

The annual EU award, named after Soviet dissident Nobel Peace Prize laureate Andrei Sakharov, was created in 1988 to honour individuals or groups who defend human rights and basic freedoms.

Imprisoned journalists win EU's top human rights award

कैद किए गए पत्रकारों ने यूरोपीय संघ का सर्वोच्च मानवाधिकार पुरस्कार जीता

- Two journalists, one imprisoned in **Belarus** and the other in **Georgia**, have won the **European Union's top human rights honour**, the **Sakharov Prize**, European Parliament President **Roberta Metsola** announced on Wednesday.
दो पत्रकारों, एक **बेलारूस** में और दूसरा **जॉर्जिया** में कैद हैं, ने **यूरोपीय संघ का सर्वोच्च मानवाधिकार सम्मान**, साखारोव पुरस्कार, जीता, यह घोषणा **यूरोपीय संसद की अध्यक्ष रॉबर्टा मेट्सोला** ने बुधवार को की।
- **Andrzej Poczobut** is a correspondent for the influential **Polish newspaper Gazeta Wyborcza**. He was convicted of "**harming Belarus' national security**" and sentenced to **eight years**, which he is serving in the **Novopolotsk penal colony**.
अंद्रेज पोचोबुट प्रभावशाली **पोलिश समाचार पत्र गैज़ेटा व्यबोरज़ा** के संवाददाता हैं। उन्हें "**बेलारूस की राष्ट्रीय सुरक्षा को नुकसान पहुँचाने**" का दोषी ठहराया गया और **आठ साल** की सजा सुनाई गई, जिसे वह **नोवोपोलोत्स्क दंड कॉलोनी** में भुगत रहे हैं।



- **Mzia Amaghlobeli**, a prominent journalist who founded two of **Georgia's independent media outlets**, was convicted in August of slapping a **police chief** during an **anti-government protest**.

मिज़िया अमाघलोबेली, एक प्रमुख पत्रकार जिन्होंने जॉर्जिया के दो स्वतंत्र मीडिया आउटलेट्स की स्थापना की, को अगस्त में सरकारी विरोध प्रदर्शन के दौरान एक पुलिस प्रमुख को थप्पड़ मारने का दोषी ठहराया गया।



- She was sentenced to **two years in prison** in a case that was condemned by **rights groups** as an attempt to curb **media freedom**.

उन्हें दो साल की जेल की सजा सुनाई गई, जिसे अधिकार समूहों ने मीडिया स्वतंत्रता को दबाने के प्रयास के रूप में निंदा की।

- "Both are journalists currently in prison on **trumped up charges** simply for doing their work and for speaking out against **injustice**. Their courage has made them symbols of the struggle for **freedom and democracy**," Ms. **Metsola** said at the parliament in **Strasbourg, France**.

"दोनों ऐसे पत्रकार हैं जो वर्तमान में जेल में हैं और उन पर सिर्फ अपना काम करने और अन्याय के खिलाफ बोलने के लिए फर्जी आरोप लगाए गए हैं। उनका साहस उन्हें स्वतंत्रता और लोकतंत्र के संघर्ष का प्रतीक बनाता है," श्रीमती मेट्सोला ने स्ट्रासबर्ग, फ्रांस में संसद में कहा।

- The annual **EU award**, named after Soviet dissident **Nobel Peace Prize laureate Andrei Sakharov**, was created in **1988** to honour individuals or groups who defend **human rights and basic freedoms**.

वार्षिक EU पुरस्कार, जिसका नाम सोवियत विरोधी नोबेल शांति पुरस्कार विजेता आंद्रेई साखारोव के नाम पर रखा गया है, 1988 में उन व्यक्तियों या समूहों को सम्मानित करने के लिए बनाया गया था जो मानवाधिकार और मौलिक स्वतंत्रताओं की रक्षा करते हैं।

GS Paper 1: History, Society and Geography

TOPICS COVERED

23 October 2025

1.

Mountbatten blames Jinnah for Partition of India
माउंटबेटन ने भारत के विभाजन के लिए जिन्ना को दोषी ठहराया

2.

Shock, horror, terror: how Dalit stories are stirring the literary world
शॉक, हॉरर, टेरर: कैसे दलित कहानियाँ साहित्य की दुनिया को हिला रही हैं

3.

QUIZ



President's pilgrimage



Prayer stop: President Droupadi Murmu carries the *irumudi* (sacred bundle) as she prays at the Lord Ayyappa temple at Sabarimala in Kerala on Wednesday. She is the second Indian President and first woman head of state to visit the hill shrine. PTI (REPORT ON PAGE 3)

Prayer stop: President Droupadi Murmu carries the *irumudi* (sacred bundle) as she prays at the Lord Ayyappa temple at Sabarimala in Kerala on Wednesday. She is the second Indian President and first woman head of state to visit the hill shrine.

PATRIOTIC



Mountbatten blames Jinnah for Partition of India

GS I: History

London, Oct. 22: Lord Mountbatten claimed here that he was keen on getting a united India at the time of its attainment of independence from British rule, but one man who prevented it was Mohammed Ali Jinnah.

Lord Mountbatten who was reminiscing on his role in last days of the empire in BBC's Current Affairs programme "to-night" on October 20 said the Leader of the Muslim League was from the beginning saying 'no' to united India and there was nothing "I could do to change his mind."

Lord Mountbatten said Mahatma Gandhi knew he was keen on getting a united India. Gandhiji, he claimed, was satisfied that he had made it over to the Indians to decide on this matter.

Asked about the wisdom of his strategy of speed in transferring power to India, Lord Mountbatten said it was not a question of wisdom of strategy. There was no alternative. The whole Government was breaking down and "we could not hold on. There was absolutely nothing I can do," he said. He added, if it was possible at that time to get British rule continued for another year he would have done differently but there was "no chance of soldiering on."

Lord Mountbatten also claimed he had predicted that East Pakistan (now Bangladesh) separated by a long distance from the West would not last more than a generation. He had told Rajaji it would last 25 years and he agreed. At the time of the birth of Bangladesh, Rajaji told a press conference that he and Mountbatten had agreed East Pakistan would last 25 years and it had actually lasted 24 and a half years.

– PTI

में कुछ भी नहीं कर सकता था," उन्होंने कहा।

- He added, if it was possible at that time to get **British rule continued** for another year he would have done differently but there was "no chance of soldiering on."
उन्होंने कहा, अगर उस समय **ब्रिटिश शासन** को एक और वर्ष के लिए जारी रखना संभव होता तो वह अलग तरीके से करते, लेकिन "आगे बढ़ने का कोई मौका नहीं था।"
- Lord Mountbatten also claimed he had predicted that **East Pakistan (now Bangladesh)** separated by a long distance from the **West** would not last more than a generation.
लॉर्ड माउंटबेटन ने यह भी दावा किया कि उन्होंने भविष्यवाणी की थी कि **पूर्व पाकिस्तान (अब बांग्लादेश)**, जो **पश्चिम** से लंबी दूरी पर था, एक पीढ़ी से अधिक टिक नहीं पाएगा।
- He had told **Rajaji** it would last **25 years** and he agreed.
उन्होंने **राजाजी** से कहा था कि यह **25 वर्ष** तक टिकेगा और उन्होंने सहमति दी।

Mountbatten blames Jinnah for Partition of India

माउंटबेटन ने भारत के विभाजन के लिए जिन्ना को दोषी ठहराया

London, Oct. 22: Lord Mountbatten claimed here that he was keen on getting a **united India** at the time of its attainment of **independence** from **British rule**, but one man who prevented it was **Mohammed Ali Jinnah**.

लंदन, 22 अक्टूबर: **लॉर्ड माउंटबेटन** ने यहां दावा किया कि वह **ब्रिटिश शासन** से **स्वतंत्रता** मिलने के समय **एक संयुक्त भारत** पाने के लिए उत्सुक थे, लेकिन इसे रोकने वाला एक व्यक्ति **मोहम्मद अली जिन्ना** था।

• **Lord Mountbatten**, who was reminiscing on his role in the last days of the empire in **BBC's Current Affairs programme "to-night"** on October 20 said the **Leader of the Muslim League** was from the beginning saying 'no' to **united India** and there was nothing "I could do to change his mind."

लॉर्ड माउंटबेटन, जो **BBC के करंट अफेयर्स प्रोग्राम "टु-नाइट"** में साम्राज्य के अंतिम दिनों में अपनी भूमिका को याद कर रहे थे, ने कहा कि **मुस्लिम लीग के नेता** शुरुआत से ही **संयुक्त भारत** के लिए 'ना' कह रहे थे और "मैं उनके मन को बदलने के लिए कुछ नहीं कर सकता था।"

• Lord Mountbatten said **Mahatma Gandhi** knew he was keen on getting a **united India**.

लॉर्ड माउंटबेटन ने कहा कि **महात्मा गांधी** जानते थे कि वह **एक संयुक्त भारत** पाने के लिए उत्सुक थे।

• Gandhiji, he claimed, was satisfied that he had made it over to the **Indians** to decide on this matter.

उन्होंने दावा किया कि **गांधीजी** संतुष्ट थे कि इस मामले का निर्णय **भारतीयों** को सौंप दिया गया।

• Asked about the wisdom of his strategy of **speed in transferring power to India**, Lord Mountbatten said it was not a question of wisdom of strategy. There was no alternative.

भारत को **शक्ति हस्तांतरण में गति** की उनकी रणनीति की समझदारी के बारे में पूछे जाने पर, लॉर्ड माउंटबेटन ने कहा कि यह रणनीति की समझदारी का सवाल नहीं था। कोई विकल्प नहीं था।

• The whole **Government** was breaking down and "we could not hold on. There was absolutely nothing I can do," he said.

पूरा **सरकार** टूट रहा था और "हम टिक नहीं सकते थे। मैं वास्तव



- At the time of the birth of **Bangladesh**, Rajaji told a press conference that he and Mountbatten had agreed **East Pakistan** would last **25 years** and it had actually lasted **24 and a half years**.
बांग्लादेश के जन्म के समय, राजाजी ने एक प्रेस कॉन्फ्रेंस में कहा कि उन्होंने और माउंटबेटन ने सहमति की थी कि पूर्व पाकिस्तान 25 वर्ष तक रहेगा और यह वास्तव में 24 साल और छह महीने तक टिक गया।



Tales not told: A Shigmotsav parade in Panaji, Goa in 2015.



PATRIOTIC



Shock, horror, terror: how Dalit stories are stirring the literary world

Books like Daya Pawar's 'Baluta' and Baby Kamble's memoir foreground the oppressed and marginalised lives of Dalits. In Dadu Mandrekar's 'Untouchable Goa', the past in the form of myths and legends and the lived reality of the present are highlighted in the hope of a better future

DSI Society

Akankshya Abisrnata

Daya Pawar's *Baluta* (translated into English by Jerry Pinto in 2015) stirred the literary world, beginning the tradition of Dalit autobiographies that are equal parts communal and personal. Published in Marathi in 1978, it shed light on the lives of Mahars in Maharashtra, letting the readers in on the oppression that they are a part of. The shock, the horror, the terror – it showed the lives of untouchables of the Mahar-wada with deep honesty and grave intensity.

In 1986, Baby Kamble became the first Mahar woman to publish her autobiography, *The Prisons We Broke* (translated into English by Maya Pandit in 2008). She dived into the doubly oppressed lives of Mahar women by caste and patriarchy, describing the domestic lives of women in great detail with a focus on the ritualistic celebration of various festivals and weddings.

Mahars of Goa

These seminal autobiographies of the community alone have set the stage where readers today are aware of the oppression and atrocities of the caste system against Mahars in Maharashtra. However, a lot remains unsaid today on the Mahars of the neighbouring State, Goa. Ever since Dadu Mandrekar became aware of the caste system in his youth, he worked towards making the lives and sufferings of the Mahars, his people, in

Goa and the Konkani region visible. He undertook the mapping of various customs and rituals practised in various Mahar-wadas set on the outskirts of villages. With every visit to such Dalit vastis, he was enraged as well as disappointed. In *Untouchable Goa*, published in Marathi in 1997 and translated posthumously by Nikhil Baisane in 2025, this

Ambedkarite-journalist records the terrifying traditions practised by the impoverished untouchables in lush Goa.

Pawar states, "The Mahar men worked as hamaals or labourers. Some worked in the mills and factories. None of the women observed purdah. How could they? They worked harder than men. They scavenged scraps of paper, rags, broken glass and iron from the streets, sorted them out and then sold them each morning." Kamble also details the various roles bestowed on women during festivals in the systematic absence of education and awareness. Both look at the lack of dignity in the lives lived in poverty as a result of the caste system.

Rituals with the dead

To highlight this further, Mandrekar begins with macabre tales of the arrival of spring marked by Shigmotsav in villages of Dicholi Taluka. Central to the celebration in this area is the custom of Gade wherein the remains of the dead, mostly women, are "exhumed, tied to long sticks, and paraded in a grotesque dance in a massive courtyard before the

village deity." They are later discarded with indifference.

He elaborates in detail the funeral practices designed to outcast women even in their death, practices that are closely related to menstruation. He questions followers of Manusmriti for such treatment of women, who are life-givers. In another taluka, he looks at communal graves. Mahars don't have assigned land for themselves where they can bury their dead. So, they dig two ditches, one for men and the other for women. The dead are tossed on top of each other, sometimes by removing bodies of people who have died before. Mandrekar's heart breaks at such lack of dignity. His questions at the system and people at large linger even as he tries to find possible solutions.

Inhuman practices

This mapping is filled with myths and legends that form the basis of various superstitious practices aimed at the exploitation of Mahars. Such as, in any celebration or puja in the temple, it is the untouchables who have to perform with the dhol for free. Sometimes they have to slash their thighs and dance throughout the event. In certain villages, it is a tradition for Mahar women to beg for leftovers after Diwali, and prepare food with it that will last for weeks.

Mandrekar notices caste markers such as the briny scent for Koli settlements, bamboo poles for Mahars or Buruds, leather scraps for chambhars, and

brooms for bhangis. The settlements of these untouchables seem discarded in their setting away from the villages that they were a part of. They are tied to age-old superstitious practices in the absence of education, but how has education helped in eradicating the caste system anyway? It reiterates Kamble's words when she says, "Educated Dalits occupy top positions in the government. Their children enjoy the good life. They are not bothered about what's happening to poor people. Whatever they do, they do only for themselves. The poor Dalits are left where they were."

Mandrekar's prose contains the past (myths and legends), the present (lived realities) and the future (introspective speculation). In the tradition of Dalit writing, he describes the atrocities of Dalits and the beautiful landscape of the place, sometimes one after the other in a matter-of-fact manner. It leaves the readers in shock to orient their mind to the co-existence of nature and the lack of nurture. Despite being written in the 1990s, one knows intuitively that this continues to be true for many villages in the smallest State in India.

Mandrekar's work is as seminal as his predecessors for he highlights a reality overlooked by all other markers of development, including tourism. This is a Goa that needs to be seen amid all the glitz.

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Shock, horror, terror: how Dalit stories are stirring the literary world शॉक, हॉरर, टेरर: कैसे दलित कहानियाँ साहित्य की दुनिया को हिला रही हैं

Daya Pawar's Baluta दया पवार की बलुता

- **Daya Pawar's Baluta** (translated into English by Jerry Pinto in 2015) stirred the literary world, beginning the tradition of Dalit autobiographies that are equal parts communal and personal.

दया पवार की बलुता (2015 में Jerry Pinto द्वारा अंग्रेज़ी में अनुवादित) ने साहित्यिक दुनिया में हलचल मचाई, और दलित आत्मकथाओं की परंपरा शुरू की, जो सामुदायिक और व्यक्तिगत दोनों हैं।

- Published in Marathi in 1978, it shed light on the lives of Mahars in Maharashtra, letting the readers in on the oppression that they are a part of.
1978 में मराठी में प्रकाशित, इसने महारों के जीवन पर प्रकाश डाला महाराष्ट्र में, पाठकों को उनके उत्पीड़न के बारे में जानकारी दी जिसमें वे शामिल थे।
- The shock, the horror, the terror — it showed the lives of untouchables of the Mahar-wada with deep honesty and grave intensity.
शॉक, भय, आतंक — इसने महार-वाड़ा के अछूतों का जीवन गहरी ईमानदारी और गंभीर तीव्रता के साथ दिखाया।





- In 1986, **Baby Kamble** became the first **Mahar woman** to publish her **autobiography**, **The Prisons We Broke** (translated into English by **Maya Pandit** in 2008).
1986 में, **बेबी कांबले** पहली **महार महिला** बनीं जिन्होंने अपनी **आत्मकथा**, **The Prisons We Broke** (2008 में **Maya Pandit** द्वारा अंग्रेजी में अनुवादित) प्रकाशित की।
- She dived into the doubly **oppressed** lives of **Mahar women** by **caste** and **patriarchy**, describing the **domestic lives** of women in great detail with a focus on the **ritualistic celebration** of various **festivals** and **weddings**.
उन्होंने **जाति** और **पितृसत्ता** द्वारा दोहरी रूप से **उत्पीड़ित महार महिलाओं** के जीवन में गहराई से उतरकर महिलाओं के **घरेलू जीवन** का विवरण दिया, विभिन्न **त्योहारों** और **शादियों** के **रीति-रिवाजों** पर विशेष ध्यान केंद्रित किया।

Mahars of Goa गोवा के महार

- These seminal **autobiographies** of the community alone have set the stage where readers today are aware of the **oppression** and **atrocities** of the **caste system** against **Mahars** in **Maharashtra**.
ये महत्वपूर्ण **आत्मकथाएँ** ही मंच तैयार करती हैं जहाँ आज के पाठक **महारों** के खिलाफ **जाति व्यवस्था** के **उत्पीड़न** और **अत्याचारों** के बारे में जानते हैं।
- However, a lot remains unsaid today on the **Mahars** of the neighbouring State, **Goa**.
हालाँकि, पड़ोसी राज्य **गोवा** के **महारों** के बारे में आज भी बहुत कुछ अनकहा रह गया है।
- Ever since **Dadu Mandrekar** became aware of the **caste system** in his **youth**, he worked towards making the lives and **sufferings** of the **Mahars**, his people, in **Goa** and the **Konkan** region **visible**.
जब से **दादु मंडरेकर** अपने **युवावस्था** में **जाति व्यवस्था** से अवगत हुए, उन्होंने **गोवा** और **कोंकण** क्षेत्र में **महारों**, अपने लोगों, के जीवन और **पीड़ा** को **दृश्य** बनाने के लिए काम किया।
- He undertook the **mapping** of various **customs** and **rituals** practised in various **Mahar-wadas** set on the outskirts of **villages**.
उन्होंने गांवों के बाहरी हिस्सों में स्थापित विभिन्न **महार-वादों** में प्रचलित विभिन्न **रीति-रिवाजों** और **परंपराओं** का **मानचित्रण** किया।
- With every visit to such **Dalit vastis**, he was **enraged** as well as **disappointed**.
ऐसी **दलित वस्ती** की हर यात्रा के साथ, वह **क्रोधित** और **निराश** दोनों हुए।
- In **Untouchable Goa**, published in **Marathi** in 1997 and translated posthumously by **Nikhil Baisane** in 2025, this **Ambedkarite-journalist** records the terrifying **traditions** practised by the **impoverished untouchables** in lush **Goa**.
Untouchable Goa में, 1997 में **मराठी** में प्रकाशित और 2025 में **Nikhil Baisane** द्वारा मृत्यु के बाद अनुवादित, यह **अंबेडकरवादी पत्रकार हरे-भरे गोवा** में गरीब **अछूतों** द्वारा प्रचलित भयानक **परंपराओं** को दर्ज करता है।
- **Pawar** states, "The **Mahar men** worked as **hamaals** or **labourers**. Some worked in the **mills** and **factories**. None of the **women** observed **purdah**. How could they? They worked harder than **men**. They scavenged **scraps of paper**, **rags**, **broken glass** and **iron** from the **streets**, sorted them out and then sold them each morning."
पवार कहते हैं, "**महार पुरुष हमाल** या **मजदूर** के रूप में काम करते थे। कुछ **मिलों** और **कारखानों** में काम करते थे। कोई **महिला पर्दा** नहीं करती थी। कैसे कर सकती थीं? वे **पुरुषों** से ज्यादा मेहनत करती थीं। वे **कागज**, **कपड़े**, **टूटा हुआ कांच** और **लोहे के टुकड़े सड़कों** से इकट्ठा करतीं, उन्हें छांटतीं और फिर हर सुबह बेचती थीं।"
- **Kamble** also details the various **roles** bestowed on **women** during **festivals** in the systematic absence of **education** and **awareness**.
कांबले ने भी **त्योहारों** के दौरान **महिलाओं** को दिए जाने वाले विभिन्न **भूमिकाओं** का विवरण दिया, **शिक्षा** और **जागरूकता** की व्यवस्थित कमी में।
- Both look at the lack of **dignity** in the lives lived in **poverty** as a result of the **caste system**.
दोनों **जाति व्यवस्था** के परिणामस्वरूप **गरीबी** में जिये जीवन में **गरिमा** की कमी को देखते हैं।

Rituals with the dead मृतकों के साथ रीति-रिवाज



- To highlight this further, **Mandrekar** begins with macabre tales of the arrival of **spring** marked by **Shigmotsav** in villages of **Dicholi Taluka**.
इसे और उजागर करने के लिए, **मंडरेकर Dicholi तालुका** के गांवों में **Shigmotsav** द्वारा चिह्नित **वसंत** के आगमन की भयानक कहानियों से शुरुआत करते हैं।
- Central to the celebration in this area is the custom of **Gade** wherein the **remains** of the **dead**, mostly **women**, are “exhumed, tied to **long sticks**, and paraded in a grotesque **dance** in a massive **courtyard** before the **village deity**.”
इस क्षेत्र में उत्सव का केंद्र **Gade** की परंपरा है जिसमें **मृतकों** के अवशेष, ज्यादातर **महिलाओं**, को “**खोदा जाता है, लंबी डंडियों** से बांध दिया जाता है, और गांव के **देवता** के सामने विशाल **आंगन** में **भेदे नृत्य** में परेड कराए जाते हैं।”
- They are later discarded with **indifference**.
बाद में उन्हें **उदासीनता** के साथ फेंक दिया जाता है।
- He elaborates in detail the **funeral practices** designed to **outcast women** even in their **death**, practices closely related to **menstruation**.
वह विस्तार से विवरण देते हैं उन **अंतिम संस्कार प्रथाओं** का, जो महिलाओं को **मृत्यु** में भी **बहिष्कृत** करने के लिए डिजाइन की गई हैं, ये प्रथाएँ **मासिक धर्म** से घनिष्ठ रूप से संबंधित हैं।
- He questions followers of **Manusmriti** for such treatment of **women**, who are **life-givers**.
वह **Manusmriti** के अनुयायियों से **महिलाओं** के इस प्रकार के व्यवहार के लिए सवाल उठाते हैं, जो **जीवन देने वाली** हैं।
- In another **taluka**, he looks at **communal graves**. **Mahars** don't have assigned **land** for themselves where they can **bury** their **dead**. So, they dig two **ditches**, one for **men** and the other for **women**.
एक अन्य **तालुका** में, वह **सामूहिक कब्रों** को देखते हैं। **महारों** के पास अपने लिए निर्धारित **भूमि** नहीं है जहाँ वे अपने **मृतकों** को **दफना** सकें। इसलिए वे दो **खाईयां** खोदते हैं, एक **पुरुषों** के लिए और दूसरी **महिलाओं** के लिए।
- The **dead** are tossed on top of each other, sometimes by removing **bodies** of people who have died before.
मृतकों को एक-दूसरे के ऊपर फेंका जाता है, कभी-कभी पहले मर चुके लोगों के **शवों** को हटा कर।
- Mandrekar's heart** breaks at such lack of **dignity**. His questions at the **system** and **people** at large linger even as he tries to find possible **solutions**.
मंडरेकर का दिल ऐसी गरिमा की कमी पर टूट जाता है। प्रणाली और **लोगों** से उनके सवाल तब भी बने रहते हैं जब वह संभावित **समाधान** खोजने की कोशिश करते हैं।

Inhuman practices अमानवीय प्रथाएँ

- This **mapping** is filled with **myths** and **legends** that form the basis of various **superstitious practices** aimed at the **exploitation** of **Mahars**.
यह **मानचित्रण** उन **मिथकों** और **कथाओं** से भरा है जो **महारों** के **शोषण** के लिए विभिन्न **अंधविश्वासी प्रथाओं** का आधार बनाती हैं।
- In any **celebration** or **puja** in the **temple**, it is the **untouchables** who have to perform with the **dhol** for **free**.
किसी भी **उत्सव** या **मंदिर पूजा** में, यह **अछूतों** को ही **ढोल** के साथ **मुफ्त** प्रदर्शन करना होता है।
- Sometimes they have to slash their **thighs** and dance throughout the **event**.
कभी-कभी उन्हें अपने **जांघों** पर चोट करनी पड़ती है और पूरे **कार्यक्रम** में नृत्य करना पड़ता है।
- In certain **villages**, it is a **tradition** for **Mahar women** to beg for **leftovers** after **Diwali**, and prepare **food** with it that will last for **weeks**.
कुछ **गांवों** में, **दिवाली** के बाद **महार महिलाओं** के लिए बचे खाने की **भूख** मांगना और उससे ऐसा **भोजन** तैयार करना परंपरा है जो हफ्तों तक चले।
- Mandrekar** notices **caste markers** such as the **briny scent** for **Koli settlements**, **bamboo poles** for **Mahars** or **Buruds**, **leather scraps** for **chambhars**, and **brooms** for **bhangis**.
मंडरेकर जाति के **संकेतों** को नोटिस करते हैं जैसे **Koli बस्तियों** के लिए **नमकीन गंध**, **Mahars** या **Buruds** के लिए **बाँस के खंभे**, **chambhars** के लिए **चमड़े के टुकड़े**, और **bhangis** के लिए **झाड़ू**।



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- The **settlements** of these **untouchables** seem **discarded** in their setting away from the **villages** that they were a part of.
इन अछूतों की बस्तियाँ उनके गांवों से दूर बिखरी हुई लगती हैं जिनका वे हिस्सा थे।
- They are tied to **age-old superstitious practices** in the absence of **education**, but how has **education** helped in eradicating the **caste system** anyway?
वे शिक्षा की कमी में पुरानी अंधविश्वासी प्रथाओं से बंधे हुए हैं, लेकिन शिक्षा ने जाति व्यवस्था को खत्म करने में कितनी मदद की है?
- It reiterates **Kamble's words** when she says, "**Educated Dalits** occupy **top positions** in the **government**. Their **children** enjoy the **good life**. They are not bothered about what's happening to **poor people**. Whatever they do, they do only for themselves. The **poor Dalits** are left where they were."
यह कांबले के शब्दों को दोहराता है जब वह कहती हैं, "शिक्षित दलित सरकार में शीर्ष पदों पर हैं। उनके बच्चे अच्छी जिंदगी जीते हैं। उन्हें गरीब लोगों के हालात की परवाह नहीं है। जो भी वे करते हैं, केवल अपने लिए करते हैं। गरीब दलित वहीं छोड़े गए जहाँ वे थे।"
- **Mandrekar's prose** contains the **past (myths and legends)**, the **present (lived realities)** and the **future (introspective speculation)**.
मंडरेकर की गद्य रचना में अतीत (मिथक और कथाएँ), वर्तमान (जिए गए वास्तविकताएं) और भविष्य (अंतर्दृष्टिपूर्ण अनुमान) शामिल हैं।
- In the tradition of **Dalit writing**, he describes the **atrocities** of **Dalits** and the beautiful **landscape** of the place, sometimes one after the other in a **matter-of-fact manner**.
दलित लेखन की परंपरा में, वह दलितों के अत्याचारों और उस जगह के सुंदर परिदृश्य का वर्णन करते हैं, कभी-कभी तथ्यात्मक तरीके से एक के बाद एक।
- It leaves the readers in **shock** to orient their **mind** to the **co-existence** of **nature** and the lack of **nurture**.
यह पाठकों को सदमे में छोड़ देता है ताकि उनका मन प्रकृति के सह-अस्तित्व और पोषण की कमी के लिए अनुकूल हो सके।
- Despite being written in the **1990s**, one knows intuitively that this continues to be true for many **villages** in the **smallest State** in **India**.
भले ही यह 1990s में लिखा गया हो, लेकिन यह सहज रूप से पता चलता है कि यह सच अभी भी भारत के सबसे छोटे राज्य के कई गांवों के लिए जारी है।
- **Mandrekar's work** is as **seminal** as his **predecessors** for he highlights a **reality** overlooked by all other **markers of development**, including **tourism**.
मंडरेकर का काम उतना ही महत्वपूर्ण है जितना उनके पूर्ववर्तियों का, क्योंकि वह वास्तविकता को उजागर करते हैं जिसे अन्य सभी विकास संकेतकों, जिनमें पर्यटन शामिल है, ने अनदेखा किया।
- This is a **Goa** that needs to be seen amid all the **glitz**.
यह गोवा है जिसे सभी आभा के बीच देखा जाना चाहिए।



QUIZ

Questions and Answers to the previous day's daily quiz: 1. This heroic distinction marks Madhu Kinnar's victory in the mayoral elections in Raigarh, Chhattisgarh. **Ans: She was the first transgender person to be elected as a mayor in India**

2. This freedom fighter became the first mayor of the Calcutta Municipal Corporation in 1924. **Ans: Chittaranjan Das. Also known as Deshbandu**

3. This freedom fighter became the first elected mayor of Delhi. **Ans: Aruna Asaf Ali**

4. This person was instrumental in a scheme on mid-day meals for children studying in corporation schools. **Ans: Tara Cherian**

5. Famous for introducing a congestion charge in London, this mayor is also known for his quirky "war on pigeons" in Trafalgar Square. **Ans: Ken Livingstone**

Visual: Identify this current head of government of a country. **Ans: Gustavo Petro. He is the president of Colombia**

Early Birds: Sadhan Kumar Panda| M. Suresh Kumar| Anubhav Gupta| Abhay Krishan| Deepak Gogiya

Madhu Bai Kinnar: India's First Transgender Mayor

Introduction

- **Madhu Bai Kinnar** made history on **January 4, 2015**, by becoming **India's first openly transgender mayor**.

- She was elected as the **Mayor of Raigarh**, a city in **Chhattisgarh**, India.

- Running as an **independent candidate**, she secured **33,168 votes**, defeating her nearest rival, **Mahaveer Guruji** of the **Bharatiya Janata Party (BJP)**, by a margin of **4,537 votes**.

Background and Personal Journey

- Born as **Naresh Chauhan** in 1980, Madhu Bai Kinnar hails from a **Dalit community** in India.

- At a young age, she left her family to join the **hijra** (transgender) community, a marginalized group in South Asia.

- Prior to her political career, she earned a living by **performing arts**, including singing and dancing on trains traveling between **Howrah and**

Mumbai, and by taking up various odd jobs in **Raigarh**.

Political Career and Achievements

- Madhu Bai Kinnar's election occurred **nine months after the Supreme Court's NALSA verdict**, which legally recognized transgender individuals as a **third gender** in India.
- As mayor, she focused on improving **sanitation**, addressing **public health issues**, and enhancing **infrastructure** in Raigarh.
- Her victory was seen as a significant step toward **inclusive politics** and **social acceptance** for transgender individuals in India.

Cultural and Social Impact

- Madhu Bai Kinnar's election was a landmark event in India's history, challenging societal norms and prejudices against the transgender community.
- Her success story has inspired many and is considered a symbol of **empowerment** and **resilience** for marginalized groups across the country.

Recent Developments

- In **October 2023**, Madhu Bai Kinnar announced her candidacy for the **Chhattisgarh Legislative Assembly elections** as a representative of the **Janta Congress Chhattisgarh** party, aiming to further her political journey and continue advocating for the rights of marginalized communities.

Chittaranjan Das: First Mayor of Calcutta Municipal Corporation

Introduction

- **Chittaranjan Das**, also known as **Deshbandhu**, was a prominent **freedom fighter** and political leader during India's struggle for independence.



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- He became the **first mayor of the Calcutta Municipal Corporation in 1924**.
- His election marked an important milestone in **Indian local self-governance** and political activism during the British Raj.

Early Life and Education

- Born on **November 5, 1870**, in **Bengal**, Chittaranjan Das came from a **well-educated and influential Bengali family**.
- He studied **law at the University of Calcutta** and became a **renowned lawyer**.
- His legal career was notable for defending prominent **nationalist leaders**, including **Aurobindo Ghosh** during the Alipore Bomb Case.

Political Career

- Das was a leader of the **Indian National Congress** and actively participated in the **Non-Cooperation Movement** against British rule.
- As **mayor of Calcutta (1924)**, he focused on:
 - Improving **municipal administration**
 - Promoting **public health** and sanitation
 - Encouraging **education and civic welfare** in urban areas
- His leadership symbolized the **rise of nationalist politics at the local level**, demonstrating the importance of civic participation in the freedom struggle.

Social and Cultural Contributions

- Known as **Deshbandhu**, meaning "Friend of the Nation," Das worked to uplift **marginalized communities** and promote **social justice**.
- He encouraged **cultural nationalism** and supported initiatives for **Bengali literature and arts**.
- His tenure as mayor helped establish the **precedent for future Indian leaders** taking responsibility in municipal governance.

Legacy and Recognition

- Chittaranjan Das's leadership as mayor left a lasting legacy in **Calcutta's civic administration**.
- Several institutions, including **Deshbandhu College in Delhi**, and public spaces in Kolkata, have been named in his honor.
- He remains a symbol of **legal excellence, political courage, and civic responsibility** in modern India.

Aruna Asaf Ali: First Elected Mayor of Delhi

Introduction

- **Aruna Asaf Ali** was a prominent **freedom fighter**, social activist, and political leader in India's independence movement.
- She became the **first elected mayor of Delhi**, marking a significant milestone in **women's leadership in Indian politics**.
- Her election demonstrated the increasing **role of women in governance** after India's independence.

Early Life and Education

- Born on **July 16, 1909**, in **Kalka, Punjab**, Aruna Asaf Ali hailed from a well-educated family.
- She was involved in **nationalist activities from a young age** and was deeply influenced by the **Gandhian philosophy of non-violence and civil disobedience**.



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- Aruna married **Asaf Ali**, a prominent freedom fighter and lawyer, and became actively involved in political and social causes.

Freedom Struggle Contributions

- Aruna Asaf Ali is famously known for her **role during the Quit India Movement (1942)**, where she **hoisted the Indian National Congress flag at the Gowalia Tank Maidan, Bombay**.
- She went **underground for several months** to evade British arrest, earning her the title of **'Grand Old Lady of the Indian Freedom Movement'**.
- She also contributed to **women's education, social reforms, and grassroots activism** in post-independence India.

Political Career and Mayorship

- In independent India, she continued her **political engagement and social activism**.
- She was elected as the **first mayor of Delhi**, symbolizing both **women's empowerment and democratic governance** at the local level.
- As mayor, she worked on:
 - Improving **municipal services** and civic administration in Delhi
 - Enhancing **public health, sanitation, and housing facilities**
 - Promoting **women's participation in civic and political life**

Legacy and Recognition

- Aruna Asaf Ali's legacy extends beyond her mayoral role; she was a **champion of social justice, civil rights, and women's empowerment**.
- She received several awards for her contributions, including the **Padma Vibhushan in 1991**.
- Institutions and public spaces in Delhi have been named in her honor, reflecting her **enduring influence on Indian society and politics**.

Visual Representation

- Portraits of **Aruna Asaf Ali hoisting the Congress flag in 1942** highlight her role in the freedom struggle.
- Historical images of **Delhi Municipal Corporation during her tenure** provide context to her administrative contributions.
- Maps showing **Delhi's municipal boundaries in the 1950s** illustrate her area of governance.

Tara Cherian: Pioneer of Mid-Day Meal Scheme in Corporation Schools

Introduction

- **Tara Cherian** was a prominent social worker and educationist, known for her contribution to **child welfare and education in India**.
- She played a key role in implementing schemes like the **mid-day meal program** for children studying in **corporation schools**.
- Her initiatives significantly improved **school enrollment, attendance, and nutrition** among underprivileged children.

Early Life and Background

- Tara Cherian was born into a family with strong **social and reformist values**.
- She actively participated in social welfare initiatives in urban areas, focusing on **education and women's empowerment**.

Contributions to Education and Child Welfare

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- She was instrumental in designing and implementing the **mid-day meal scheme**, which provided **nutritious meals to children in municipal schools**.
- The scheme aimed to:
 - **Increase school attendance** among children from low-income families
 - **Improve nutritional standards** to combat malnutrition and hunger
 - **Encourage gender parity** by incentivizing families to send girls to school
- Her work laid the foundation for the **later national Mid-Day Meal Scheme**, which now covers millions of children across India.

Impact of the Mid-Day Meal Scheme

- The scheme led to **higher enrollment rates** in corporation schools.
- Helped in **reducing drop-out rates** and **improving health outcomes** for children.
- Demonstrated the **link between nutrition and education**, setting a model for future government interventions.

Recognition and Legacy

- Tara Cherian's work is recognized as **pioneering in the field of social welfare and child nutrition**.
- Her initiatives continue to influence **policies for school health, nutrition, and education**.
- She remains a **role model for social reformers and educationists** in India.

Ken Livingstone: Former Mayor of London

Introduction

- **Ken Livingstone** served as the **Mayor of London** from **2000 to 2008**.
- He is renowned for his **progressive policies** on urban transport, environment, and public welfare.
- Notably recognized for introducing the **London Congestion Charge**, a pioneering initiative to reduce traffic and pollution in central London.

Early Life and Political Background

- Born in **1945**, Ken Livingstone became active in **British politics** as a member of the **Labour Party**.
- Known for his **left-wing, progressive policies**, he served as a **Member of Parliament** before becoming mayor.
- His tenure as **Mayor of London** was marked by a focus on **sustainability, transport, and social reforms**.

Key Initiatives and Contributions

- **London Congestion Charge (2003):**
 - Introduced a **daily charge** for vehicles entering central London to reduce **traffic congestion**.
 - Encouraged **public transport use** and contributed to **lower air pollution levels** in the city.
 - Served as a **global model** for other cities implementing congestion pricing.
- **War on Pigeons in Trafalgar Square:**
 - Initiated measures to **control pigeon population** in the iconic public square.
 - Aimed to **preserve cleanliness** and protect public monuments from damage caused by pigeons.
 - Became a **quirky yet famous aspect** of his tenure, attracting media attention.
- **Public Transport and Sustainability:**
 - Advocated for **improvements in buses, trains, and cycling infrastructure**.
 - Promoted **environment-friendly policies**, including hybrid buses and urban green initiatives.



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Impact and Legacy

- The **Congestion Charge** successfully reduced traffic in central London by about 15-20% in the initial years.
- Set a precedent for **urban transport management** in major cities worldwide.
- Remembered as a **bold and unconventional leader** who combined progressive governance with distinctive public initiatives.

GS Paper II: Polity, Governance, And International Relations

TOPICS COVERED

23 October 2025

1.	Modi, Trump speak; U.S., India versions vary मोदी, ट्रंप की बातचीत; अमेरिका और भारत के संस्करण अलग-अलग
2.	Ladakh delegates offered terms of Article 371 by govt सरकार द्वारा लद्दाख प्रतिनिधियों को अनुच्छेद 371 की शर्तें पेश की गईं
3.	SC Collegium's shift in Justice Sreedharan's posting triggers judicial independence concerns न्यायमूर्ति श्रीधरन की पोस्टिंग में एससी कॉलेजियम के बदलाव ने न्यायिक स्वतंत्रता पर सवाल खड़े किए
4.	Free world स्वतंत्र दुनिया
5.	The challenges posed by the TTP to Pakistan टीटीपी (TTP) द्वारा पाकिस्तान के सामने आने वाली चुनौतियाँ
6.	'\$100-bn investment target under trade deal to be met well before 15-year goal' 'व्यापार समझौते के तहत \$100 बिलियन निवेश लक्ष्य 15-वर्षीय लक्ष्य से पहले ही पूरा होगा'
7.	Iran ratifies law to join UN convention against terror finance ईरान ने आतंक वित्त पोषण के खिलाफ संयुक्त राष्ट्र संधि में शामिल होने के लिए कानून



Modi, Trump speak; U.S., India versions vary

U.S. President extends Deepavali greetings to Modi ahead of a possible meeting in Malaysia

Suhasini Haidar
NEW DELHI

Days ahead of a possible meeting in Kuala Lumpur, and amidst intense ongoing trade negotiations, U.S. President Donald Trump called Prime Minister Narendra Modi on Tuesday to extend Deepavali greetings, the leaders said. However, the two sides differed vastly in their comments following the call.

Mr. Modi referred to a united stance on terrorism, while Mr. Trump said the conversation focused on the trade deal, Russian oil, and ensuring "no war with Pakistan". However, government sources insisted that Pakistan was not discussed during the call.

For the fourth time in a week, the U.S. President said that Mr. Modi had conveyed the government's decision to cut its imports of Russian oil in an effort to end the Ukraine conflict, a claim he asserted in the presence of Indian Ambassador to Washington Vinay Kwatra, which was not refuted.

Trade talks

"I just spoke to your Prime Minister today," the U.S. President said on Tuesday, addressing the "people of India" directly in comments at the White House, where he held a special Deepavali celebration for prominent Indian-Americans and Indian Embassy officials.

"We had a great conversation. We talked about

On this festival of lights, may our two great democracies continue to illuminate the world with hope and stand united against terrorism in all its forms.

NARENDRA MODI



We had a great conversation. We talked about trade. We talked about a lot of things, but mostly the world of trade. He's very interested in that.

DONALD TRUMP



trade. We talked about a lot of things, but mostly the world of trade. He's very interested in that," he added.

A few hours later, the Prime Minister thanked the U.S. President for his phone call and "warm Diwali greetings".

"On this festival of

lights, may our two great democracies continue to illuminate the world with hope and stand united against terrorism in all its forms," Mr. Modi said, without offering any further details.

No comment from MEA
The Ministry of External

Affairs did not comment on the discussion between the two leaders, who are both due to travel to Malaysia this weekend to attend ASEAN-related summits, including the East Asia Summit together.

The Ministry has thus far declined to confirm that Prime Minister will be visiting Kuala Lumpur for the summits, as well as the annual India-ASEAN Summit.

While side-stepping Mr. Trump's other comments, a government source pointedly denied that Mr. Trump and Mr. Modi had spoken about Pakistan, a sore point as the U.S. President has repeatedly claimed he mediated the India-Pakistan ceasefire despite India's denials.

Mr. Trump also said that

he had spoken to Mr. Modi earlier about "having no wars with Pakistan", suggesting again that he had used trade as a leverage to "talk [PM Modi] out of that".

On Russian oil

Addressing India's imports of Russian oil, Mr. Trump said that he believed India had already reduced its intake.

"[Mr. Modi] wants to see that war end as much as with Russia and Ukraine as much as I do. And as you know, they're not going to be buying too much oil. So, they've got it way back, and they're continuing to cut it way back," Mr. Trump said.

The government has not explicitly denied that it is reducing Russian oil im-

ports, although the Ministry of External Affairs said that the government would make decisions based on consumer prices and supply reliability.

Indian trade negotiators are believed to be speaking to their U.S. counterparts about a broader Free Trade agreement (FTA) which would include lowering U.S. tariffs, while India would also cut tariffs, increase market access for U.S. agricultural and other products, and give up its Russian oil imports.

It remains to be seen whether such a deal that is agreeable to both sides can be hammered out in time for an announcement of some sort on the sidelines of the ASEAN summits, to be held from October 26 to 28.

Modi, Trump speak; U.S., India versions vary

मोदी, ट्रंप की बातचीत; अमेरिका और भारत के संस्करण अलग-अलग

- U.S. President extends **Deepavali greetings** to Modi ahead of a possible **meeting in Malaysia**
अमेरिकी राष्ट्रपति ने मलेशिया में संभावित बैठक से पहले मोदी को दीवाली की शुभकामनाएं दीं
- President **Trump says** PM Modi has conveyed India's **decision to stop purchasing Russian oil**
राष्ट्रपति ट्रंप ने कहा कि प्रधानमंत्री मोदी ने भारत का रूसी तेल खरीदना बंद करने का निर्णय बताया
- **Trump says** call focused on **trade deal, oil, and Pakistan**; India **denies Pakistan was discussed**
ट्रंप ने कहा कि बातचीत का केंद्र व्यापार समझौता, तेल और पाकिस्तान था; भारत ने पाकिस्तान पर चर्चा से इनकार किया
- Days ahead of a possible **meeting in Kuala Lumpur**, and amidst intense ongoing **trade negotiations**, U.S. President **Donald Trump** called **Prime Minister Narendra Modi** on **Tuesday** to extend **Deepavali greetings**, the leaders said. However, the two sides differed vastly in their comments following the call.
कुआला लंपुर में संभावित बैठक से कुछ दिन पहले और चल रही गहन व्यापार वार्ताओं के बीच, अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप ने प्रधानमंत्री नरेंद्र मोदी को मंगलवार को दीवाली की शुभकामनाएं देने के लिए फोन किया, नेताओं ने कहा। हालांकि, दोनों पक्षों के बयान इस कॉल के बाद काफी अलग थे।
- Mr. Modi referred to a united stance on **terrorism**, while Mr. Trump said the conversation focused on the **trade deal, Russian oil**, and ensuring "**no war with Pakistan**". However,



government sources insisted that **Pakistan** was not discussed during the call.

श्री मोदी ने आतंकवाद पर एकजुट रुख का उल्लेख किया, जबकि श्री ट्रंप ने कहा कि बातचीत का केंद्र व्यापार समझौता, रूसी तेल, और "पाकिस्तान से युद्ध नहीं होने" को सुनिश्चित करना था। हालांकि, सरकारी सूत्रों ने जोर देकर कहा कि पाकिस्तान पर इस कॉल के दौरान चर्चा नहीं हुई।

- For the **fourth time in a week**, the **U.S. President** said that Mr. Modi had conveyed the government's decision to **cut its imports of Russian oil** in an effort to end the **Ukraine conflict**, a claim he asserted in the presence of **Indian Ambassador to Washington Vinay Kwatra**, which was not refuted.

एक सप्ताह में चौथी बार, अमेरिकी राष्ट्रपति ने कहा कि श्री मोदी ने सरकार का यह निर्णय बताया कि रूसी तेल के आयात में कटौती की जाएगी ताकि यूक्रेन संघर्ष को समाप्त किया जा सके, यह दावा उन्होंने वॉशिंगटन में भारतीय राजदूत विनय क्वत्रा की मौजूदगी में किया, जिसे नकारा नहीं गया।

Trade talks व्यापार वार्ता

- "I just spoke to your **Prime Minister today**," the **U.S. President** said on **Tuesday**, addressing the "**people of India**" directly in comments at the **White House**, where he held a special **Deepavali celebration** for prominent **Indian-Americans** and **Indian Embassy officials**.
"मैंने आज ही आपके प्रधानमंत्री से बात की," अमेरिकी राष्ट्रपति ने मंगलवार को कहा, व्हाइट हाउस में "भारत के लोगों" को सीधे संबोधित करते हुए, जहां उन्होंने प्रमुख भारतीय-अमेरिकियों और भारतीय दूतावास अधिकारियों के लिए विशेष दीवाली समारोह आयोजित किया।
- "We had a great conversation. We talked about **trade**. We talked about a lot of things, but mostly the world of trade. He's very interested in that," he added.
"हमारी शानदार बातचीत हुई। हमने व्यापार पर बात की। हमने कई चीजों पर चर्चा की, लेकिन ज्यादातर व्यापार की दुनिया पर। उन्हें इसमें बहुत रुचि है," उन्होंने जोड़ा।
- A few hours later, the **Prime Minister** thanked the **U.S. President** for his phone call and "**warm Diwali greetings**".
कुछ घंटे बाद, प्रधानमंत्री ने अमेरिकी राष्ट्रपति को उनके फोन कॉल और "गर्मजोशी भरी दीवाली शुभकामनाओं" के लिए धन्यवाद दिया।
- "On this festival of lights, may our two great democracies continue to **illuminate the world with hope** and **stand united against terrorism in all its forms**," Mr. Modi said, without offering any further details.
"इस प्रकाश पर्व पर, हमारी दोनों महान लोकतंत्रों दुनिया को आशा से आलोकित करें और हर रूप में आतंकवाद के खिलाफ एकजुट रहें," श्री मोदी ने कहा, बिना कोई और विवरण दिए।

No comment from MEA

विदेश मंत्रालय की ओर से कोई टिप्पणी नहीं

- The **Ministry of External Affairs** did not comment on the discussion between the two leaders, who are both due to travel to **Malaysia** this weekend to attend **ASEAN-related summits**, including the **East Asia Summit** together.
विदेश मंत्रालय ने दोनों नेताओं के बीच हुई चर्चा पर कोई टिप्पणी नहीं की, जो दोनों इस सप्ताहांत मलेशिया की यात्रा पर आसियान से संबंधित सम्मेलनों, जिनमें पूर्वी एशिया शिखर सम्मेलन भी शामिल है, में भाग लेंगे।
- The Ministry has thus far declined to confirm that the Prime **Minister** will be visiting **Kuala Lumpur** for the summits, as well as the annual **India-ASEAN Summit**.
मंत्रालय ने अब तक यह पुष्टि करने से इनकार किया है कि प्रधानमंत्री इन सम्मेलनों के लिए कुआला लंपुर जाएंगे, साथ ही वार्षिक भारत-आसियान शिखर सम्मेलन में भी।
- While side-stepping Mr. Trump's other comments, a **government source** pointedly denied that Mr. Trump and Mr. Modi had spoken about **Pakistan**, a sore point as the **U.S. President** has repeatedly claimed he mediated the **India-Pakistan ceasefire** despite **India's denials**.
श्री ट्रंप की अन्य टिप्पणियों को दरकिनार करते हुए, एक सरकारी स्रोत ने स्पष्ट रूप से इनकार किया कि श्री ट्रंप और श्री मोदी ने पाकिस्तान पर बात की थी, जो एक संवेदनशील मुद्दा है क्योंकि अमेरिकी राष्ट्रपति बार-बार दावा करते रहे हैं कि उन्होंने भारत-पाकिस्तान युद्धविराम में मध्यस्थता की, जबकि भारत ने इससे इनकार किया।



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

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

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- Mr. Trump also said that he had spoken to Mr. Modi earlier about “**having no wars with Pakistan**”, suggesting again that he had used **trade as leverage** to “talk [PM Modi] out of that”.

श्री ट्रंप ने यह भी कहा कि उन्होंने पहले श्री मोदी से “**पाकिस्तान से कोई युद्ध न होने**” पर बात की थी, यह सुझाव देते हुए कि उन्होंने “**व्यापार को एक दबाव साधन**” के रूप में इस्तेमाल किया ताकि “[प्रधानमंत्री मोदी] को उससे रोक सकें।”

On Russian oil रूसी तेल पर

- Addressing **India’s imports of Russian oil**, Mr. Trump said that he believed **India had already reduced its intake**.
भारत के रूसी तेल आयात पर बोलते हुए, श्री ट्रंप ने कहा कि उन्हें लगता है कि **भारत ने पहले ही अपने आयात को घटा दिया है**।
- “[Mr. Modi] wants to see that **war end** as much as with **Russia and Ukraine** as much as I do. And as you know, they’re not going to be buying too much oil. So, they’ve got it way back, and they’re continuing to cut it way back,” Mr. Trump said.
“[श्री मोदी] चाहते हैं कि **रूस और यूक्रेन** के बीच वह **युद्ध समाप्त हो**, जितना मैं चाहता हूँ। और जैसा कि आप जानते हैं, वे अब बहुत अधिक तेल नहीं खरीदेंगे। उन्होंने इसे काफी घटा दिया है, और वे इसे और भी कम कर रहे हैं,” श्री ट्रंप ने कहा।
- The **government** has not explicitly denied that it is reducing **Russian oil imports**, although the **Ministry of External Affairs** said that the government would make decisions based on **consumer prices and supply reliability**.
सरकार ने यह स्पष्ट रूप से नहीं नकारा कि वह **रूसी तेल आयात** कम कर रही है, हालांकि **विदेश मंत्रालय** ने कहा कि सरकार के निर्णय **उपभोक्ता कीमतों** और **आपूर्ति विश्वसनीयता** पर आधारित होंगे।
- **Indian trade negotiators** are believed to be speaking to their **U.S. counterparts** about a broader **Free Trade Agreement (FTA)** which would include **lowering U.S. tariffs**, while **India** would also cut tariffs, **increase market access** for **U.S. agricultural and other products**, and **give up its Russian oil imports**.
यह माना जाता है कि **भारतीय व्यापार वार्ताकार** अपने **अमेरिकी समकक्षों** से एक व्यापक **मुक्त व्यापार समझौते (एफटीए)** पर बात कर रहे हैं, जिसमें **अमेरिकी शुल्कों को कम करना** शामिल होगा, जबकि **भारत** भी शुल्क घटाएगा, **अमेरिकी कृषि और अन्य उत्पादों** के लिए **बाजार पहुंच बढ़ाएगा**, और **अपने रूसी तेल आयात को छोड़ देगा**।
- It remains to be seen whether such a **deal** that is agreeable to both sides can be hammered out in time for an **announcement** of some sort on the sidelines of the **ASEAN summits**, to be held from **October 26 to 28**.
यह देखना बाकी है कि क्या ऐसा **समझौता**, जो दोनों पक्षों को स्वीकार्य हो, **आसियान शिखर सम्मेलनों** के दौरान **26 से 28 अक्टूबर** तक किसी **घोषणा** के रूप में समय पर किया जा सकता है।



Ladakh delegates offered terms of Article 371 by govt.

GS II: Special Status

Vijaita Singh
NEW DELHI

A month after four persons, including a Kargil war veteran, were killed in police action against protestors seeking Ladakhi Statehood, civil society groups resumed talks on the region's status with Ministry of Home Affairs (MHA) officials on Wednesday.

The MHA officials indicated to the two groups — the Leh Apex Body (LAB) and the Kargil Democratic Alliance (KDA) — that special provisions guaranteed under Article 371 of the Constitution can be considered for Ladakh, people who attended the meeting told *The Hindu*.

However, both groups said they continued to demand inclusion under the Sixth Schedule of the Constitution, which recognises tribal status and provides a measure of autonomy and self-governance. They also continued to demand the release of Sonam Wangchuk and other protesters detained after last month's violence in Leh.

Article 371 deals with "Temporary, Transitional and Special Provisions", and exists under Part XXI of the Constitution. It is currently applicable in 12 States: Nagaland, Assam, Manipur, Mizoram, Maharashtra, Gujarat, Andhra Pradesh, Telangana, Aru-

nachal Pradesh, Goa, Sikkim, and Karnataka.

Cherring Dorjay Lakruk, co-convenor of the LAB and the president of the influential Ladakh Buddhist Association, said the civil society groups were still holding out for Statehood. "It was indicated to us by MHA officials that Article 371 can be considered for Ladakh, but we were adamant on inclusion under the Sixth Schedule of the Constitution. The officials heard us patiently, took notes of our demands, and said they will come back to us soon. No assurance was given as they also need time to discuss," he said.

"We strongly demanded the release of Sonam Wangchuk and other detainees without any conditions. We also asked the MHA officials to provide compensation to the families of the four men killed in police firing and also to those injured during the incident," Mr. Lakruk said.

"It was suggested by the Ministry that safeguards available under Article 371 can be explored. However, we have demanded Sixth Schedule," confirmed Sajjad Kargili of the KDA.

The sub-committee is expected to meet again in the next ten-days, following which the high-powered committee led by Union Minister of State for Home Nityanand Rai will also meet.

Ladakh delegates offered terms of Article 371 by govt

सरकार द्वारा लद्दाख प्रतिनिधियों को अनुच्छेद 371 की शर्तें पेश की गईं

A month after four persons, including a Kargil war veteran, were killed in police action against protestors seeking Ladakhi Statehood, civil society groups resumed talks on the region's status with Ministry of Home Affairs (MHA) officials on Wednesday.

चार व्यक्तियों, जिनमें एक कारगिल युद्ध के दिग्गज भी शामिल थे, की पुलिस कार्रवाई में मौत के एक महीने बाद, जो लद्दाख राज्य के दर्जे की मांग कर रहे थे, नागरिक समाज समूहों ने बुधवार को गृह मंत्रालय (एमएचए) के अधिकारियों के साथ क्षेत्र की स्थिति पर बातचीत फिर से शुरू की।

The MHA officials indicated to the two groups — the Leh Apex Body (LAB) and the Kargil Democratic Alliance (KDA) — that special provisions guaranteed under Article 371 of the Constitution can be considered for Ladakh, people who attended the meeting told *The Hindu*.

एमएचए अधिकारियों ने दोनों समूहों — लेह एपेक्स बॉडी (एलएबी) और कारगिल डेमोक्रेटिक अलायंस (केडीए) — को संकेत दिया कि संविधान के अनुच्छेद 371 के तहत दिए गए विशेष प्रावधान लद्दाख के लिए विचार किए जा सकते हैं, बैठक में उपस्थित लोगों ने द हिंदू को बताया।

However, both groups said they continued to demand inclusion under the Sixth Schedule of the Constitution, which recognises tribal status and provides a measure of autonomy and self-governance. They also continued to demand the release of Sonam Wangchuk and other protesters detained after last month's violence in Leh.

हालांकि, दोनों समूहों ने कहा कि वे संविधान के छठे अनुसूची के तहत शामिल किए जाने की मांग पर कायम हैं, जो जनजातीय दर्जा मान्यता देता है और स्वायत्तता और आत्मशासन का प्रावधान करता है। उन्होंने लेह में पिछले महीने हुई हिंसा के बाद गिरफ्तार किए गए सोनम वांगचुक और अन्य प्रदर्शनकारियों की रिहाई की भी मांग जारी रखी।

Article 371 deals with "Temporary, Transitional and Special Provisions", and exists under Part XXI of the Constitution. It is currently applicable in 12 States: Nagaland, Assam, Manipur, Mizoram, Maharashtra, Gujarat, Andhra Pradesh, Telangana, Arunachal Pradesh, Goa, Sikkim, and Karnataka.

अनुच्छेद 371 "अस्थायी, संक्रमणकालीन और विशेष प्रावधानों" से संबंधित है, और संविधान के भाग XXI के अंतर्गत आता है। यह वर्तमान में 12 राज्यों पर लागू है: नगालैंड, असम,

मणिपुर, मिजोरम, महाराष्ट्र, गुजरात, आंध्र प्रदेश, तेलंगाना, अरुणाचल प्रदेश, गोवा, सिक्किम और कर्नाटक।

- Cherring Dorjay Lakruk, co-convenor of the LAB and the president of the influential Ladakh Buddhist Association, said the civil society groups were still holding out for Statehood.



चेरींग दोरजे लकरुक, एलएबी के सह-संयोजक और प्रभावशाली लद्दाख बौद्ध संघ के अध्यक्ष ने कहा कि नागरिक समाज समूह अभी भी राज्य के दर्जे पर अड़े हुए हैं।

- “It was indicated to us by **MHA officials** that **Article 371** can be considered for **Ladakh**, but we were adamant on inclusion under the **Sixth Schedule** of the Constitution. The officials heard us patiently, took notes of our demands, and said they will come back to us soon. No assurance was given as they also need time to discuss,” he said.
“**एमएचए अधिकारियों** ने हमें संकेत दिया कि **अनुच्छेद 371** को लद्दाख के लिए विचार किया जा सकता है, लेकिन हम संविधान के **छठे अनुसूची** में शामिल किए जाने पर अड़े रहे। अधिकारियों ने हमारी बातें धैर्यपूर्वक सुनीं, हमारी मांगों को नोट किया, और कहा कि वे जल्द ही हमें जवाब देंगे। कोई आश्वासन नहीं दिया गया क्योंकि उन्हें भी चर्चा के लिए समय चाहिए,” उन्होंने कहा।
- “We strongly demanded the release of **Sonam Wangchuk** and other detainees without any conditions. We also asked the **MHA officials** to provide **compensation** to the families of the four men killed in **police firing** and also to those injured during the incident,” Mr. Lakruk said.
“हमने बिना किसी शर्त के **सोनम वांगचुक** और अन्य बंदियों की रिहाई की कड़ी मांग की। हमने **एमएचए अधिकारियों** से यह भी कहा कि **पुलिस फायरिंग** में मारे गए चार व्यक्तियों के परिवारों को और घटना में घायल लोगों को **मुआवजा** दिया जाए,” श्री लकरुक ने कहा।
- “It was suggested by the **Ministry** that **safeguards** available under **Article 371** can be explored. However, we have demanded a **Sixth Schedule**,” confirmed **Sajjad Kargili** of the **KDA**.
मंत्रालय द्वारा यह सुझाव दिया गया कि **अनुच्छेद 371** के तहत उपलब्ध **संरक्षणों** पर विचार किया जा सकता है। हालांकि, हमने **छठे अनुसूची** की मांग की है,” **केडीए के सज्जाद कारगिली** ने पृष्टि की।
- The **sub-committee** is expected to meet again in the next **ten days**, following which the **high-powered committee** led by **Union Minister of State for Home Nityanand Rai** will also meet.
उप-समिति के अगले **दस दिनों** में फिर से मिलने की उम्मीद है, जिसके बाद **गृह राज्य मंत्री नित्यानंद राय** के नेतृत्व में **उच्च स्तरीय समिति** भी बैठक करेगी।

SC Collegium's shift in Justice Sreedharan's posting triggers judicial independence concerns

GS II: Judicial Independence
NEWS ANALYSIS

Krishnadas Rajagopal
NEW DELHI

The Supreme Court Collegium's unexpected change of mind to recommend a Madhya Pradesh High Court judge, Justice Atul Sreedharan, for the Allahabad High Court, in compliance with the Centre's wishes instead of an earlier proposal to shift him to Chhattisgarh, has brought back into focus executive interference in judicial appointments and transfers in constitutional courts.

An October 14 'bare-bones' collegium resolution does not reveal why the Supreme Court body gave up its earlier recommendation on Justice Sreedharan.

In August, the Supreme Court Collegium had recommended the transfer of the judge to the Chhattisgarh High Court, where he would have been the second senior-most judge.

In the Allahabad High Court, Justice Sreedharan would be seventh in seniority, and outside the High Court Collegium. The collegium has the power of veto, and could reiterate



the earlier August recommendation, following which the government would have to bend.

Justice Sreedharan's is not the first in recent years when the Supreme Court

Collegium has swayed to the government's wishes as far as transfer of judges were concerned. In 2018, the Centre objected to a collegium recommendation to appoint Justice Akil Kureshi, whose decision in the Gujarat 'fake' encounter cases had ruffled feathers, as Madhya Pradesh High Court Chief Justice. The collegium, instead, agreed to his appointment as Tripura High Court Chief Justice, a smaller court with four Judges. Though one of the senior most High Court judges, he was not considered for the Supreme Court.

In the J&K and Ladakh High Court, Justice Sreedharan was part of a Bench which struck down several preventive detention orders under the Public Safety Act.

He was repatriated to Madhya Pradesh in March 2025. Back in Madhya Pradesh, he was part of the Bench which had taken *suo motu* cognisance of remarks allegedly made by State Minister Vijay Shah against Colonel Sofiya Qureshi, who had briefed the media during Operation Sindoor, and ordered the registration of an FIR against the BJP leader.



SC Collegium's shift in Justice Sreedharan's posting triggers judicial independence concerns

न्यायमूर्ति श्रीधरन की पोस्टिंग में एससी कॉलेजियम के बदलाव ने न्यायिक स्वतंत्रता पर सवाल खड़े किए

- The **Supreme Court Collegium's** unexpected change of mind to recommend a **Madhya Pradesh High Court judge, Justice Atul Sreedharan**, for the **Allahabad High Court**, in compliance with the **Centre's wishes** instead of an earlier proposal to shift him to **Chhattisgarh**, has brought back into focus **executive interference** in judicial appointments and transfers in **constitutional courts**.
सुप्रीम कोर्ट कॉलेजियम के अचानक मन बदलने और मध्य प्रदेश उच्च न्यायालय के न्यायाधीश, न्यायमूर्ति अतुल श्रीधरन को अलाहाबाद उच्च न्यायालय के लिए सुझाने के निर्णय ने, जो पहले छत्तीसगढ़ में स्थानांतरण की प्रस्तावना के बजाय केंद्र की इच्छा का पालन था, संवैधानिक अदालतों में न्यायिक नियुक्तियों और स्थानांतरणों में कार्यकारी हस्तक्षेप को फिर से केंद्रित किया है।
- An **October 14 'barebones' collegium resolution** does not reveal why the **Supreme Court body** gave up its earlier recommendation on **Justice Sreedharan**.
14 अक्टूबर के 'संक्षिप्त' कॉलेजियम प्रस्ताव में यह नहीं बताया गया कि क्यों सुप्रीम कोर्ट कॉलेजियम ने न्यायमूर्ति श्रीधरन के लिए अपनी पहले की सिफारिश छोड़ दी।
- In **August**, the **Supreme Court Collegium** had recommended the transfer of the judge to the **Chhattisgarh High Court**, where he would have been the **second senior-most judge**.
अगस्त में, सुप्रीम कोर्ट कॉलेजियम ने न्यायाधीश को छत्तीसगढ़ उच्च न्यायालय में स्थानांतरित करने की सिफारिश की थी, जहां वह दूसरे वरिष्ठतम न्यायाधीश होते।
- In the **Allahabad High Court**, **Justice Sreedharan** would be **seventh in seniority**, and outside the **High Court Collegium**.
अलाहाबाद उच्च न्यायालय में, न्यायमूर्ति श्रीधरन सातवें वरिष्ठता क्रम में होते, और उच्च न्यायालय कॉलेजियम के बाहर होते।
- The **collegium** has the power of **veto**, and could reiterate the earlier **August recommendation**, following which the **government** would have to bend.
कॉलेजियम के पास वेटो शक्ति है, और यह अगस्त की सिफारिश को दोहरा सकता था, जिसके बाद सरकार को झुकना पड़ता।
- **Justice Sreedharan's** is not the first in recent years when the **Supreme Court Collegium** has swayed to the **government's wishes** as far as transfer of judges were concerned.
हाल के वर्षों में यह पहला मामला नहीं है जब सुप्रीम कोर्ट कॉलेजियम ने न्यायाधीशों के स्थानांतरण के संबंध में सरकार की इच्छाओं के अनुसार झुकाव दिखाया।
- In **2018**, the **Centre** objected to a **collegium recommendation** to appoint **Justice Akil Kureshi**, whose decision in the **Gujarat 'fake' encounter cases** had ruffled feathers, as **Madhya Pradesh High Court Chief Justice**.
2018 में, केंद्र ने कॉलेजियम की सिफारिश का विरोध किया, जिसमें न्यायमूर्ति अकील कुरेशी को मध्य प्रदेश उच्च न्यायालय के मुख्य न्यायाधीश के रूप में नियुक्त करने की बात थी, जिनके गुजरात 'फेक' एनकाउंटर मामलों के निर्णय ने विवाद पैदा किया था।
- The **collegium**, instead, agreed to his appointment as **Tripura High Court Chief Justice**, a **smaller court** with four Judges.
इसके बजाय, कॉलेजियम ने उन्हें त्रिपुरा उच्च न्यायालय के मुख्य न्यायाधीश के रूप में नियुक्ति देने पर सहमति दी, जो एक छोटा न्यायालय है और जिसमें चार न्यायाधीश हैं।
- Though one of the **senior-most High Court judges**, he was not considered for the **Supreme Court**.
हालांकि वह वरिष्ठतम उच्च न्यायालय न्यायाधीशों में से एक थे, उन्हें सुप्रीम कोर्ट के लिए नहीं माना गया।
- In the **J&K and Ladakh High Court**, **Justice Sreedharan** was part of a **Bench** which struck down several **preventive detention orders** under the **Public Safety Act**.
जेके और लद्दाख उच्च न्यायालय में, न्यायमूर्ति श्रीधरन उस बेंच का हिस्सा थे जिसने जन सुरक्षा अधिनियम के तहत कई रोकथाम हिरासत आदेशों को रद्द कर दिया।
- He was repatriated to **Madhya Pradesh** in **March 2025**.
उन्हें मार्च 2025 में मध्य प्रदेश में पुनः स्थानांतरित किया गया।





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- Back in **Madhya Pradesh**, he was part of the **Bench** which had taken **suo motu cognisance** of remarks allegedly made by **State Minister Vijay Shah** against **Colonel Sofya Qureshi**, who had briefed the media during **Operation Sindoor**, and ordered the **registration of an FIR** against the **BJP leader**.

मध्य प्रदेश लौटकर, वह उस **बेंच** का हिस्सा थे जिसने **राज्य मंत्री विजय शाह** द्वारा कथित रूप से **कर्नल सोफ्या कुरेशी** के खिलाफ किए गए टिप्पणियों का **स्वयं संज्ञान (सुओ मोटु)** लिया, जिन्होंने **ऑपरेशन सिंदूर** के दौरान मीडिया को जानकारी दी थी, और **बीजेपी नेता** के खिलाफ **एफआईआर दर्ज करने** का आदेश दिया।

GS II: Globalization

Free world

India should be more welcoming of foreign scholars and experts

The free movement of people and ideas is integral to a globalised world. But India continues to send out conflicting signals on this count. On the one hand it wants to welcome technology, capital and know-how from all corners of the world but on the other, it is also trying to insulate itself, feeling insecure about an alleged global conspiracy against it. The deportation of Francesca Orsini, a scholar of Hindi and South Asian literature and professor emerita at the School of Oriental and African Studies (SOAS) University of London, from Delhi airport on October 20 has to be seen in this context. She held a valid five-year e-tourist visa but was blacklisted in March 2025 for violation of visa conditions. Ms. Orsini had allegedly engaged in academic activities during a visit in October 2024, which were, technically, a violation of the terms of her tourist visa. Her influential work, *The Hindi Public Sphere 1920-1940: Language and Literature in the Age of Nationalism*, has significantly contributed to the understanding of Indian literary and cultural history. She is one among the many foreign scholars who have devoted their lives to researching and writing on various aspects of India. The argument about violations may well be true, but also evident is the arbitrariness in deportation decisions. Foreign business leaders visiting India routinely make political statements praising the government, which can be termed a violation of visa conditions.

Those who see themselves as guardians of India's national security will have to think hard on the cost and benefits of restricting the entry of international scholars into the country. Many people associated with the ideological ecosystem of the ruling Bharatiya Janata Party believe that there is an international conspiracy to influence the thinking of Indians. This thought is reflected in policy actions that restrict non-governmental organisations and scholars. There are various forces globally at play at any given point, some favouring India, and some not. While the country must have a strategy to harness the forces that help it and counter those that do not, it cannot do this by fencing itself in. In Ms. Orsini's case, there is nothing beyond the claim that she violated visa conditions. To begin with, visa conditions should be more welcoming of scholars, scientists and experts. It is also relevant in this context that there are several global leaders in many fields who are of Indian origin but are citizens of another country. A country that feels threatened by authors, scientists and thinkers will have little chance of realising its full potential. Open societies have their vulnerabilities; but trying to fix them by turning into a closed society will stunt progress without necessarily enhancing security.

Free world स्वतंत्र दुनिया

- **India should be more welcoming of foreign scholars and experts** to foster knowledge exchange, innovation, and global collaborations.

भारत को विदेशी विद्वानों और विशेषज्ञों के प्रति अधिक स्वागतशील (welcoming) होना चाहिए ताकि ज्ञान का आदान-प्रदान, नवाचार (innovation), और वैश्विक सहयोग (global collaborations) को बढ़ावा मिल सके।

Deportation of Francesca Orsini and India's Global Signals

फ्रांसेस्का ऑर्सिनी का निर्वासन और भारत के वैश्विक संकेत

- The **free movement of people and ideas** is integral to a **globalised world**.

लोगों और विचारों की स्वतंत्र आवाजाही एक वैश्वीकरण दुनिया के लिए महत्वपूर्ण है।

- India continues to send out **conflicting signals** on this count.

इस मामले में भारत लगातार **विरोधाभासी संकेत** भेज रहा है।

- On one hand, it wants to welcome **technology, capital, and know-how** from all corners of the world.

एक तरफ, यह दुनिया के सभी कोनों से **प्रौद्योगिकी, पूंजी और ज्ञान** का स्वागत करना चाहता है।

- On the other hand, it is also trying to **insulate itself, feeling insecure about an alleged global conspiracy** against it.

दूसरी तरफ, यह अपने आपको **अलग-थलग** करने की कोशिश भी कर रहा है, और इसके खिलाफ **कथित वैश्विक साजिश** को लेकर असुरक्षित महसूस कर रहा है।

- The **deportation of Francesca Orsini, a scholar of Hindi and South Asian literature and professor emerita at SOAS University of London, from Delhi airport on October 20** has to be seen in this context.

फ्रांसेस्का ऑर्सिनी, जो **हिंदी और दक्षिण एशियाई साहित्य की विदुषी और SOAS यूनिवर्सिटी ऑफ लंदन की प्रोफेसर एमेरिता** हैं, का **20 अक्टूबर** को दिल्ली हवाई अड्डे से **निर्वासन** इसी संदर्भ में देखा जाना चाहिए।

- She held a valid **five-year e-tourist visa** but was **blacklisted in March 2025 for violation of visa conditions**.

उनके पास वैध **पांच साल का ई-टूरिस्ट वीजा** था लेकिन **मार्च 2025** में उन्हें **वीजा शर्तों के उल्लंघन** के लिए **ब्लैकलिस्ट** किया गया।

- Ms. Orsini had allegedly engaged in **academic activities** during a visit in **October 2024**, which were technically a violation of the terms of her **tourist visa**.

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कथित तौर पर, अक्टूबर 2024 में अपने दौर के दौरान Ms. Orsini ने शैक्षणिक गतिविधियों में भाग लिया, जो तकनीकी रूप से उनके टूरिस्ट वीजा की शर्तों का उल्लंघन था।

- Her influential work, **The Hindi Public Sphere 1920-1940: Language and Literature in the Age of Nationalism**, has significantly contributed to the understanding of Indian literary and cultural history.

उनका प्रभावशाली काम, **The Hindi Public Sphere 1920-1940: Language and Literature in the Age of Nationalism**, ने भारतीय साहित्यिक और सांस्कृतिक इतिहास को समझने में महत्वपूर्ण योगदान दिया है।

- She is among many **foreign scholars** who have devoted their lives to researching and writing on various aspects of **India**.

वह कई विदेशी विद्वानों में से एक हैं, जिन्होंने भारत के विभिन्न पहलुओं पर शोध और लेखन में अपना जीवन समर्पित किया है।

- The argument about **violations** may be true, but **arbitrariness in deportation decisions** is evident.

उल्लंघनों के बारे में तर्क सही हो सकता है, लेकिन निर्वासन निर्णयों में मनमानी स्पष्ट है।

- **Foreign business leaders** visiting India routinely make **political statements** praising the government, which can also be termed a **violation of visa conditions**.

भारत आने वाले विदेशी व्यापारिक नेताओं द्वारा नियमित रूप से सरकार की सराहना में राजनीतिक बयान देना, जिसे भी वीजा शर्तों का उल्लंघन कहा जा सकता है।

- Guardians of India's **national security** must weigh the **costs and benefits** of restricting the entry of **international scholars**.

भारत की राष्ट्रीय सुरक्षा के संरक्षकों को अंतरराष्ट्रीय विद्वानों के प्रवेश को प्रतिबंधित करने के लागत और लाभ पर विचार करना होगा।

- Many people associated with the **ideological ecosystem** of the ruling **Bharatiya Janata Party** believe in an **international conspiracy** to influence Indian thinking.

सत्तारूढ़ भारतीय जनता पार्टी के वैचारिक तंत्र से जुड़े कई लोग भारतीय सोच को प्रभावित करने के लिए एक अंतरराष्ट्रीय साजिश में विश्वास करते हैं।

- This thought is reflected in **policy actions** that restrict **non-governmental organisations and scholars**.

यह विचार उन नीति कार्यवाहियों में दिखाई देता है जो गैर-सरकारी संगठनों और विद्वानों को सीमित करती हैं।

- Globally, there are **various forces**, some favoring India and some not.

वैश्विक स्तर पर विभिन्न ताकतें हैं, कुछ भारत के पक्ष में और कुछ नहीं।

- While the country must **harness supportive forces** and **counter adverse ones**, it cannot do this by **fencing itself in**.

जबकि देश को सहायक शक्तियों का उपयोग और विपरीत शक्तियों का मुकाबला करना चाहिए, यह इसे खुद को घेरकर नहीं कर सकता।

- In Ms. Orsini's case, there is nothing beyond the **claim of visa violation**.

Ms. Orsini के मामले में, वीजा उल्लंघन के दावे के अलावा कुछ नहीं है।

- **Visa conditions** should be more welcoming of **scholars, scientists, and experts**.

वीजा शर्तों को विद्वानों, वैज्ञानिकों और विशेषज्ञों के लिए अधिक स्वागत योग्य होना चाहिए।

- Several **global leaders** in many fields are of **Indian origin** but **citizens of another country**.

कई क्षेत्रों में कई वैश्विक नेता भारतीय मूल के हैं लेकिन किसी अन्य देश के नागरिक हैं।

- A country that feels threatened by **authors, scientists, and thinkers** will have little chance of **realizing its full potential**. (E)

एक देश जो लेखकों, वैज्ञानिकों और विचारकों से खतरा महसूस करता है, उसे अपनी पूर्ण क्षमता प्राप्त करने की बहुत कम संभावना होगी।

- **Open societies** have vulnerabilities; trying to fix them by becoming a **closed society** will **stunt progress** without necessarily enhancing **security**.

खुले समाजों में कमजोरियाँ होती हैं; इन्हें बंद समाज बनकर ठीक करने की कोशिश करना प्रगति को रोक देगा बिना आवश्यक रूप से सुरक्षा बढ़ाए।

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The challenges posed by the TTP to Pakistan

Pakistan's struggle with the Tehreek-e-Taliban Pakistan (TTP) has escalated amid worsening relations with Afghanistan. As the Pakistan government faces pressure to address the TTP's demands for autonomy in the region, the rise in violence exposes a deeper failure in governance and strategy.

WORLD INSIGHT

D. Suba Chandran

During the last two weeks, Pakistan's relationship with Afghanistan worsened with border clashes. Though the two have reached an agreement in Doha, Pakistan believes that the primary problem between the two countries is the Tehreek-e-Taliban Pakistan (TTP), with the Afghan Taliban giving safe haven to the group.

Extent of the conflict

Pakistan's primary challenge with respect to the TTP is the high level of violence and terrorism in the Khyber Pakhtunkhwa (KP) province. According to media reports referring to data sourced from think tanks and Pakistan's Inter Services Public Relations (ISPR), 2024 had the worst violence in the last decade. More than 1,600 people were killed last year; around 680 of them security personnel. There were more than 39,770 military operations in 2024, during which around 900 militants were killed. While the two provinces – KP and Balochistan – together witnessed 94% of the casualties in 2024, the former, where the TTP has a significant presence accounted for 63%.

Thus, there has been a steady increase in violence since 2021, especially in KP, after a decline during 2016-23. Data published by Pakistan's Centre for Research and Security Studies and the Pakistan Institute for Peace Studies runs contrary to the once-held general Pakistani belief, that once the U.S. leaves Afghanistan, militancy will decline. Taliban's return to Kabul has not brought peace to Pakistan's tribal regions.

Then there are the demands of the TTP. The Pakistan Taliban wants the demarcation of tribal regions from the rest of the KP province; removal of security forces; and the imposition of Shariah law. The TTP seeks to rule the tribal areas – the Federally Administered Tribal Areas (FATA) that the British created. In 2018, the Pakistan Muslim League (N) (PML-N) government, through the 25th constitutional amendment, restored FATA's special status and merged it with KP, thereby providing representation of the FATA in the provincial Assembly and allowing the jurisdiction of the courts in the region. The TTP wants to undo the above and impose its writ.

Provincial issues

There are complex issues plaguing the KP region. First is its colonial legacy and the federal writ in the tribal regions. The British found it useful to create a buffer region between its India empire and Afghanistan, and thus created the FATA and used the Frontier Crime Regulation (FCR) to administer the seven tribal areas separately. Independent Pakistan followed this British policy for the next seven decades, and never imposed its writ. It was directly administered by Islamabad and Rawalpindi (mainly by the latter); and democratic institutions and administrations were not allowed in these seven tribal regions, as it suited Pakistan's myopic approach of controlling Kabul.

Second is the civil-military imbalance in Pakistan, and the country's search for strategic depth in Afghanistan. During the two external invasions of Afghanistan (by the Soviet Union in the 1980s and the U.S. in 2000s and 2010s) and internal Afghan instability (during the 1990s), the Establishment (Pakistan military) saw the tribal region as a strategic board to pursue its interests in Kabul. With such an aim in



Internal war: A car is seen underneath debris from a mosque that was attacked by a TTP bomber, in Peshawar, Pakistan, in 2013. REUTERS

mind, the presence of political parties, local administration, provincial elections and representation in the KP (then the North-West Frontier Province) provincial assembly, and access to courts by the FATA were seen as a liability for Pakistan's pursuit of strategic depth. However, the above vacuum provided space for the TTP's emergence. While political and military establishments see the TTP as a post-2006 development, it ignores the inherent reasons which allowed the TTP to thrive. That is, while Pakistan's primary accusation that the Afghan Taliban has a TTP connection is a valid point, what Pakistan ignores is how such a connection came about.

Third is the rise of the Afghan Taliban and the U.S.-led war on terrorism in Afghanistan. The TTP came into existence in the tribal regions, especially in two areas – the Maitwad and Wazir led North and South Waziristan – when the Afghan Taliban along with the al-Qaeda moved into the tribal region when the U.S. invaded Afghanistan. Both wanted safe havens and local support to fight against the U.S.-led forces across the Durand Line. The TTP came into existence to provide that support. Pakistan's political and military establishments were aware of the link, and even tried to make multiple deals with the TTP and its different factions between 2005 and 2015.

The Afghan Taliban found an ally in the TTP, and some TTP factions even fought along with the Afghan Taliban. The Establishment in Pakistan was aware of this linkage and wanted to believe that they would remain focused west of the Durand Line. There was even a naive belief, that once the U.S. leaves, the Afghan Taliban would sever its links with the TTP. However, that was not the case as data proves. After the U.S. withdrawal in 2021, the Afghan Taliban did not give up on the TTP, and there has been a multi-fold increase in violence within Pakistan. The Afghan Taliban, despite global pressure, did not give up the relationship with al-Qaeda either. Expecting it to give up the TTP now is a tough call. Besides, Afghan Taliban sees the Daesh (ISIS) as the primary threat inside Afghanistan. There has been

reports of TTP splinter groups joining the Daesh; for Kabul that would be a bigger internal threat.

Fourth is the lack of a consistent approach towards the TTP by Pakistan. The first serious TTP debate in Pakistan came only in December 2014, after the attack on the Army Public School (APS) at Peshawar, that killed more than 150, mostly students. Before this, the TTP's attacks were primarily concentrated in the tribal region, which the Establishment dealt with through a series of military operations and peace deals. However, after the APS attack in December 2014, Pakistan announced a "National Action Plan" that included a policy shift in addressing the militant threat. It included political, military and institutional measures such as reforming religious seminaries, creating institutions and military course to deal with terrorism and extremism. But within a few years, there was again a U-turn, from the military resolve to crush the TTP to engaging with it. During 2020-22, there were dialogues, ceasefires and extensions. It was during this phase that Pakistan expected the Taliban to force the TTP to disarm.

While the Establishment blamed the Pakistan Tehreek-e-Insaf (PTI) for talking to the TTP, the initial response of the Pakistan Democratic Movement (PDM) during 2022, led by the PML-N and the Pakistan Peoples Party (PPP) also focused on the same. Moreover, the PPP-PML government would not have negotiated with the TTP without the Establishment's approval.

The fifth issue is the missing social-political players in the tribal regions, where the TTP has a presence. Pakistan has failed to encourage alternative political players in the tribal areas that could collect and express the local sentiments, especially the youth. In fact, the state has suppressed all alternate options. The existing religious political parties in the region are the two factions of the Jamiat Ulema-e-Islam (JUI) which have monopolised the political space. However, both represent only the old guard, while the tribal youth are looking for new narratives. The Pakistan Taliban Movement (PTM) could have become a

primary social and political party representing the new generation, especially in Waziristan, where the TTP has its base. PTM leaders such as Manzoor Pashteen, AE Wazir, and Mubshin Durrani are from Waziristan; and some of them were elected to Parliament. Instead of promoting the PTM, Pakistan decided to ban it.

Sixth, blaming the TTP threat on Afghanistan and India. There is a national consensus in Pakistan that the TTP problem persists because of external support from the Taliban and India. Creating a new term – Fitna-e-Khwarizj – for the TTP highlights this new narrative that Pakistan wants to build. Calling the TTP as outsiders, and referring to them as being supported by external actors (India and the Afghan Taliban) is to shift the blame for its internal failures.

Internal fault

Pakistan has a serious problem especially in the tribal regions that are undergoing a social and demographic transformation. Pursuing the tribal region with strategies of the 1980s would not yield the desired results. As the support to the PTM would reveal, the tribal region is looking for new players. The old religious political parties are becoming irrelevant. Political parties and organisations like the PTI and the PTM can occupy that space; unfortunately, both are out of favour with the Establishment.

Blaming the Afghan Taliban for the TTP and carrying out attacks inside Afghanistan would be counterproductive. Pakistan should know more about the Afghan Taliban and the Afghan nation. Unilateral military actions from the east of the Durand Line since the British days, have never yielded the desired political results.

Pushing the Afghan refugees back; unilateral closer of border points; and blaming Afghanistan for the TTP problem would only alienate the Afghan nation. For Pakistan, that would be a bigger threat, than what the TTP is today.

D. Suba Chandran is professor and dean at the school of conflict and security studies at the National Institute of Advanced Studies (NIAS).

THE GIST

▼ Pakistan's primary challenge with respect to the TTP is the high level of violence and terrorism in the Khyber Pakhtunkhwa (KP) province.

▼ The TTP came into existence in the tribal regions, especially in two areas – the Maitwad and Wazir led North and South Waziristan – when the Afghan Taliban along with the al-Qaeda moved into the tribal region when the U.S. invaded Afghanistan.

▼ Pakistan has a serious problem especially in the tribal regions that are undergoing a social and demographic transformation. Pursuing the tribal region with strategies of the 1980s would not yield the desired results.

**The challenges posed by the TTP to Pakistan
टीटीपी (TTP) द्वारा पाकिस्तान के सामने आने वाली चुनौतियाँ**



- Pakistan's struggle with the **Tehreek-e-Taliban Pakistan (TTP)** has escalated amid worsening relations with **Afghanistan**.
पाकिस्तान का संघर्ष **तेहरिक-ए-तालिबान पाकिस्तान (TTP)** के साथ **अफगानिस्तान (Afghanistan)** के साथ बिगड़ते संबंधों के बीच बढ़ गया है।
- As the Pakistan government faces pressure to address the TTP's **demands for autonomy** in the region, the rise in **violence** exposes a deeper failure in **governance and strategy**.
जैसे ही पाकिस्तान सरकार को क्षेत्र में TTP की **स्वायत्तता (autonomy)** की मांगों को पूरा करने का दबाव झेलना पड़ रहा है, **हिंसा (violence)** में वृद्धि **शासन और रणनीति (governance and strategy)** में गहरी असफलता को उजागर करती है।



Pakistan-Afghanistan Relations and TTP Challenge पाकिस्तान-अफगानिस्तान संबंध और TTP की चुनौती

- During the last two weeks, **Pakistan's relationship with Afghanistan worsened with border clashes**.
पिछले दो हफ्तों में, **पाकिस्तान का अफगानिस्तान के साथ संबंध सीमा विवादों के कारण बिगड़ गया**।
- Though the two have reached an agreement in Doha, **Pakistan believes that the primary problem between the two countries is the Tehreek-e-Taliban Pakistan (TTP)**, with the **Afghan Taliban giving safe haven to the group**.
हालाँकि दोनों ने दोहा में एक समझौता किया है, **पाकिस्तान का मानना है कि दोनों देशों के बीच मुख्य समस्या TTP (तेहरिक-ए-तालिबान पाकिस्तान) है, जिसमें अफगान तालिबान इस समूह को सुरक्षित ठिकाना दे रहा है**।

Extent of the conflict संघर्ष की सीमा

- **Pakistan's primary challenge with respect to the TTP is the high level of violence and terrorism in the Khyber Pakhtunkhwa (KP) province**.
TTP के संदर्भ में पाकिस्तान की प्रमुख चुनौती **खैबर पख्तूनख्वा (KP) प्रांत में उच्च स्तर के हिंसा और आतंकवाद है**।
- According to **media reports referring to data sourced from think tanks and Pakistan's Inter Services Public Relations (ISPR)**, 2024 had the worst violence in the last decade.
मीडिया रिपोर्टों के अनुसार, जो थिंक टैंक्स और पाकिस्तान की इंटर सर्विसेज पब्लिक रिलेशंस (ISPR) के डेटा पर आधारित हैं, 2024 में पिछले दशक की सबसे अधिक हिंसा हुई।
- **More than 1,600 people were killed last year; around 680 of them security personnel**.
पिछले वर्ष **1,600 से अधिक लोग मारे गए; जिनमें लगभग 680 सुरक्षा कर्मी थे।**
- **There were more than 59,770 military operations in 2024, during which around 900 militants were killed**.
2024 में **59,770 से अधिक सैन्य अभियान हुए, जिनमें लगभग 900 लड़के मारे गए।**
- While the two provinces — **KP and Balochistan** — together witnessed **94% of the casualties in 2024**, the former, where the TTP has a significant presence accounted for **63%**.
जबकि दो प्रांत — **KP और बलोचिस्तान** — ने 2024 में कुल हताहतों का **94%** देखा, पूर्व वाला, जहाँ TTP की महत्वपूर्ण उपस्थिति है, **63%** का हिस्सा रखता है।
- Thus, there has been a **steady increase in violence since 2021, especially in KP, after a decline during 2016-20**.
इस प्रकार, **2021 से हिंसा में लगातार वृद्धि हुई है, विशेष रूप से KP में, 2016-20 के दौरान गिरावट के बाद।**
- Data published by **Pakistan's Centre for Research and Security Studies and the Pakistan Institute for Peace Studies** runs contrary to the **once-held general Pakistani belief, that once the U.S. leaves Afghanistan, militancy will decline**.
पाकिस्तान के सेंटर फॉर रिसर्च एंड सिव्योरिटी स्टडीज और पाकिस्तान इंस्टिट्यूट फॉर पीस स्टडीज द्वारा प्रकाशित डेटा उस पाकिस्तानी सामान्य विश्वास के विपरीत है, कि जैसे ही अमेरिका अफगानिस्तान छोड़ता है, आतंकवाद में कमी आएगी।



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

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

CONTACT: 9971932488



- Taliban's return to Kabul has not brought peace to Pakistan's tribal regions.
तालिबान का काबुल लौटना पाकिस्तान के जनजातीय क्षेत्रों में शांति नहीं ला सका।
- Then there are the demands of the TTP.
इसके बाद TTP की मांगें भी हैं।
- The Pakistan Taliban wants the demerger of tribal regions from the rest of the KP province; removal of security forces; and the imposition of Shariah law.
पाकिस्तान तालिबान चाहता है कि जनजातीय क्षेत्रों को KP प्रांत के बाकी हिस्सों से अलग किया जाए; सुरक्षा बलों को हटा दिया जाए; और शरिया कानून लागू किया जाए।
- The TTP seeks to rule the tribal areas — the Federally Administered Tribal Areas (FATA) that the British created.
TTP जनजातीय क्षेत्रों — संघीय प्रशासनिक जनजातीय क्षेत्र (FATA), जिसे ब्रिटिशों ने बनाया था, पर शासन करना चाहता है।
- In 2018, the Pakistan Muslim League (N) (PML-N) government, through the 25th constitutional amendment, removed FATA's special status and merged it with KP, thereby providing representation of the FATA in the provincial Assembly and allowing the jurisdiction of the courts in the region.
2018 में, पाकिस्तान मुस्लिम लीग (N) (PML-N) सरकार ने 25वें संवैधानिक संशोधन के माध्यम से FATA की विशेष स्थिति को हटा दिया और इसे KP में मिला दिया, जिससे FATA को प्रांतीय विधानसभा में प्रतिनिधित्व मिला और क्षेत्र में अदालती अधिकार क्षेत्र की अनुमति मिली।
- The TTP wants to undo the above and impose its writ.
TTP ऊपर दिए गए बदलाव को उलटना और अपनी सत्ता लागू करना चाहता है।

Provincial issues

प्रांतीय मुद्दे

- There are complex issues plaguing the KP region.
KP क्षेत्र में जटिल समस्याएँ हैं।
- First is its colonial legacy and the federal writ in the tribal regions.
पहली समस्या इसका औपनिवेशिक विरासत और जनजातीय क्षेत्रों में संघीय आदेश का असर है।
- The British found it useful to create a buffer region between its India empire and Afghanistan, and thus created the FATA and used the Frontier Crime Regulation (FCR) to administer the seven tribal areas separately.
ब्रिटिशों ने इसे अपने भारत साम्राज्य और अफगानिस्तान के बीच एक बफर क्षेत्र बनाने के लिए उपयोगी पाया, और इस तरह FATA का निर्माण किया और सात जनजातीय क्षेत्रों को अलग से प्रशासन करने के लिए Frontier Crime Regulation (FCR) का उपयोग किया।
- Independent Pakistan followed this British policy for the next seven decades, and never imposed its writ.
स्वतंत्र पाकिस्तान ने अगले सात दशकों तक इस ब्रिटिश नीति का पालन किया और कभी अपना आदेश थोप नहीं पाया।
- It was directly administered by Islamabad and Rawalpindi (mainly by the latter); and democratic institutions and administrations were not allowed in these seven tribal regions, as it suited Pakistan's myopic approach of controlling Kabul.
इसे इस्लामाबाद और रावलपिंडी (मुख्य रूप से बाद वाला) द्वारा सीधे प्रशासनित किया गया; और इन सात जनजातीय क्षेत्रों में लोकतांत्रिक संस्थाएँ और प्रशासन की अनुमति नहीं दी गई, क्योंकि यह पाकिस्तान के काबुल को नियंत्रित करने के संकीर्ण दृष्टिकोण के अनुकूल था।
- Second is the civil-military imbalance in Pakistan, and the country's search for strategic depth in Afghanistan.
दूसरी समस्या पाकिस्तान में नागरिक-सैनिक असंतुलन और अफगानिस्तान में रणनीतिक गहराई की तलाश है।
- During the two external invasions of Afghanistan (by the Soviet Union in the 1980s and the U.S. in 2000s and 2010s) and internal Afghan instability (during the 1990s), the Establishment (Pakistan military) saw the tribal region as a strategic board to pursue its interests in Kabul.
दो बाहरी आक्रमणों के दौरान अफगानिस्तान पर (1980 के दशक में सोवियत संघ और 2000 और 2010 के दशक में अमेरिका) और 1990 के दशक के दौरान आंतरिक अफगान अस्थिरता में, स्थापना



(पाकिस्तान सेना) ने जनजातीय क्षेत्र को काबुल में अपने हितों को आगे बढ़ाने के लिए एक रणनीतिक मंच के रूप में देखा।

- With such an aim in mind, the presence of **political parties, local administration, provincial elections and representation in the KP (then the North-West Frontier Province) provincial assembly, and access to courts by the FATA** were seen as a liability for Pakistan's pursuit of strategic depth.
ऐसे उद्देश्य के साथ, राजनीतिक पार्टियों, स्थानीय प्रशासन, प्रांतीय चुनाव और KP (तत्कालीन North-West Frontier Province) प्रांतीय विधानसभा में प्रतिनिधित्व, और FATA द्वारा अदालतों तक पहुंच को पाकिस्तान के रणनीतिक गहराई के प्रयासों के लिए बोझ माना गया।
- However, the above vacuum provided space for the TTP's emergence.
हालांकि, उपरोक्त खालीपन ने TTP के उदय के लिए स्थान प्रदान किया।
- While political and military establishments see the TTP as a post-2001 development, it ignores the inherent reasons which allowed the TTP to thrive.
जबकि राजनीतिक और सैन्य संस्थान TTP को 2001 के बाद का विकास मानते हैं, यह वे अंतर्निहित कारण अनदेखा करता है जिनसे TTP को पनपने का अवसर मिला।
- That is, while Pakistan's primary accusation that the Afghan Taliban has a TTP connection is a valid point, what Pakistan ignores is how such a connection came about.
अर्थात्, जबकि पाकिस्तान का मुख्य आरोप कि अफगान तालिबान का TTP से संबंध है, एक वैध बिंदु है, पाकिस्तान जो अनदेखा करता है वह यह है कि ऐसा संबंध कैसे बना।
- Third is the rise of the Afghan Taliban and the U.S.-led war on terrorism in Afghanistan.
तीसरी समस्या अफगान तालिबान का उदय और अफगानिस्तान में अमेरिका नेतृत्व वाले आतंकवाद विरोधी युद्ध है।
- The TTP came into existence in the tribal regions, especially in two areas — the Mehsud and Wazir led North and South Waziristan — when the Afghan Taliban along with al-Qaeda moved into the tribal region when the U.S. invaded Afghanistan.
TTP का गठन जनजातीय क्षेत्रों में हुआ, विशेष रूप से दो क्षेत्रों में — Mehsud और Wazir के नेतृत्व वाला North और South Waziristan — जब अफगान तालिबान और अल-कायदा ने जनजातीय क्षेत्र में प्रवेश किया, जब अमेरिका ने अफगानिस्तान पर आक्रमण किया।
- Both wanted safe havens and local support to fight against the U.S.-led forces across the Durand Line.
दोनों चाहते थे कि Durand Line के पार अमेरिका नेतृत्व वाले बलों के खिलाफ लड़ने के लिए सुरक्षित ठिकाने और स्थानीय समर्थन प्राप्त हो।
- The TTP came into existence to provide that support.
TTP का गठन इस समर्थन को प्रदान करने के लिए हुआ।
- Pakistan's political and military establishments were aware of the link, and even tried to make multiple deals with the TTP and its different factions between 2005 and 2015.
पाकिस्तान की राजनीतिक और सैन्य संस्थाएँ इस संबंध से अवगत थीं, और 2005 और 2015 के बीच TTP और इसके विभिन्न गुटों के साथ कई समझौते करने की कोशिश की।
- The Afghan Taliban found an ally in the TTP, and some TTP factions even fought along with the Afghan Taliban.
अफगान तालिबान ने TTP में एक सहयोगी पाया, और कुछ TTP गुटों ने अफगान तालिबान के साथ मिलकर भी लड़ाई की।
- The Establishment in Pakistan was aware of this linkage and wanted to believe that they would remain focused west of the Durand Line.
पाकिस्तान की स्थापना इस संबंध से अवगत थी और यह मानना चाहती थी कि वे Durand Line के पश्चिम में केंद्रित रहेंगे।
- There was even a naïve belief, that once the U.S. leaves, the Afghan Taliban would sever its links with the TTP.
यहाँ तक कि एक भोला विश्वास था, कि जैसे ही अमेरिका चले जाएगा, अफगान तालिबान TTP के साथ अपने संबंध तोड़ देगा।
- However, that was not the case as data proves.
हालांकि, डेटा प्रमाणित करता है कि ऐसा नहीं हुआ।
- After the U.S. withdrawal in 2021, the Afghan Taliban did not give up on the TTP, and there has been a multi-fold increase in violence within Pakistan.



2021 में अमेरिका के वापसी के बाद, अफगान तालिबान ने TTP को नहीं छोड़ा, और पाकिस्तान में हिंसा में कई गुना वृद्धि हुई।

- The Afghan Taliban, despite global pressure, did not give up the relationship with al-Qaeda either.
अफगान तालिबान ने, वैश्विक दबाव के बावजूद, अल-कायदा के साथ संबंध को भी नहीं छोड़ा।
- Expecting it to give up the TTP now is a tough call.
अब TTP को छोड़ने की उम्मीद करना मुश्किल है।
- Besides, Afghan Taliban sees the Daesh (ISIS) as the primary threat inside Afghanistan.
इसके अलावा, अफगान तालिबान Daesh (ISIS) को अफगानिस्तान के अंदर मुख्य खतरा मानता है।
- There have been reports of TTP splinter groups joining the Daesh; for Kabul that would be a bigger internal threat.
रिपोर्टें आई हैं कि TTP के विखंडित गुट Daesh में शामिल हो रहे हैं; काबुल के लिए यह एक बड़ा आंतरिक खतरा होगा।
- Fourth is the lack of a consistent approach towards the TTP by Pakistan.
चौथी समस्या TTP के प्रति पाकिस्तान की निरंतर नीति की कमी है।
- The first serious TTP debate in Pakistan came only in December 2014, after the attack on the Army Public School (APS) at Peshawar, that killed more than 150, mostly students.
पाकिस्तान में पहली गंभीर TTP बहस केवल दिसंबर 2014 में आई, पेशावर में Army Public School (APS) पर हमले के बाद, जिसमें 150 से अधिक लोग मारे गए, ज्यादातर छात्र।
- Before this, the TTP's attacks were primarily concentrated in the tribal region, which the Establishment dealt with through a series of military operations and peace deals.
इससे पहले, TTP के हमले मुख्य रूप से जनजातीय क्षेत्र में केंद्रित थे, जिसे स्थापना ने कई सैन्य अभियानों और शांति समझौतों के माध्यम से संभाला।
- However, after the APS attack in December 2014, Pakistan announced a "National Action Plan" that included a policy shift in addressing the militant threat.
हालांकि, दिसंबर 2014 में APS हमले के बाद, पाकिस्तान ने "National Action Plan" की घोषणा की, जिसमें उग्रवादी खतरे से निपटने में नीति बदलाव शामिल था।
- It included political, military and institutional measures such as reforming religious seminaries, creating institutions and military course to deal with terrorism and extremism.
इसमें राजनीतिक, सैन्य और संस्थागत उपाय शामिल थे, जैसे कि धार्मिक मदरसों का सुधार, संस्थाओं का निर्माण और आतंकवाद और उग्रवाद से निपटने के लिए सैन्य पाठ्यक्रम।
- But within a few years, there was again a U-turn, from the military resolve to crush the TTP to engaging with it.
लेकिन कुछ वर्षों के भीतर, फिर से एक U-turn आया, TTP को खत्म करने के सैन्य संकल्प से इसे जोड़ने की नीति की ओर।
- During 2020-22, there were dialogues, ceasefires and extensions.
2020-22 के दौरान, संवाद, युद्धविराम और विस्तार हुए।
- It was during this phase that Pakistan expected the Taliban to force the TTP to disarm.
इसी चरण में पाकिस्तान ने तालिबान से उम्मीद की कि वे TTP को हथियार डालने के लिए मजबूर करेंगे।
- While the Establishment blamed the Pakistan Tehreek-e-Insaf (PTI) for talking to the TTP, the initial response of the Pakistan Democratic Movement (PDM) during 2022, led by the PML-N and the Pakistan Peoples Party (PPP) also focused on the same.
जबकि स्थापना ने Pakistan Tehreek-e-Insaf (PTI) को TTP से बातचीत करने का दोषी ठहराया, 2022 के दौरान Pakistan Democratic Movement (PDM) की प्रारंभिक प्रतिक्रिया, जिसे PML-N और Pakistan Peoples Party (PPP) ने नेतृत्व किया, भी इसी पर केंद्रित थी।
- Moreover, the PPP-PML government would not have negotiated with the TTP without the Establishment's approval.
इसके अलावा, PPP-PML सरकार TTP के साथ बिना स्थापना की मंजूरी के बातचीत नहीं करती।
- The fifth issue is the missing social/political players in the tribal regions, where the TTP has a presence.
पाँचवीं समस्या यह है कि जनजातीय क्षेत्रों में सामाजिक/राजनीतिक खिलाड़ी गायब हैं, जहाँ TTP की उपस्थिति है।



- Pakistan has failed to encourage alternative political players in the tribal areas that could collect and express the local sentiments, especially the youth.
पाकिस्तान जनजातीय क्षेत्रों में वैकल्पिक राजनीतिक खिलाड़ियों को प्रोत्साहित करने में विफल रहा है, जो स्थानीय भावनाओं, विशेष रूप से युवाओं, को एकत्र और व्यक्त कर सकें।
- In fact, the state has suppressed all alternate options.
वास्तव में, राज्य ने सभी वैकल्पिक विकल्पों को दबा दिया है।
- The existing religious political parties in the region are the two factions of the Jamiat Ulema-e-Islam (JUI) which have monopolised the political space.
क्षेत्र में मौजूदा धार्मिक राजनीतिक पार्टियाँ Jamiat Ulema-e-Islam (JUI) के दो गुट हैं जिन्होंने राजनीतिक क्षेत्र पर एकाधिकार कर लिया है।
- However, both represent only the old guard, while the tribal youth are looking for new narratives.
हालांकि, दोनों केवल पुराने गार्ड का प्रतिनिधित्व करते हैं, जबकि जनजातीय युवा नई कहानियों की तलाश में हैं।
- The Pashtun Tahafuz Movement (PTM) could have become a primary social and political party representing the new generation, especially in Waziristan, where the TTP has its base.
Pashtun Tahafuz Movement (PTM) नई पीढ़ी का प्रतिनिधित्व करने वाली एक प्रमुख सामाजिक और राजनीतिक पार्टी बन सकती थी, विशेष रूप से Waziristan में, जहाँ TTP का आधार है।
- PTM leaders such as Manzoor Pashteen, Ali Wazir, and Mohsin Dawar are from Waziristan; and some of them were elected to Parliament.
PTM के नेता जैसे Manzoor Pashteen, Ali Wazir, और Mohsin Dawar Waziristan से हैं; और कुछ सांसद के रूप में चुने गए थे।
- Instead of promoting the PTM, Pakistan decided to ban it.
PTM को बढ़ावा देने के बजाय, पाकिस्तान ने इसे प्रतिबंधित करने का निर्णय लिया।
- Sixth, blaming the TTP threat on Afghanistan and India.
छठी समस्या, TTP खतरे का आरोप अफगानिस्तान और भारत पर लगाना।
- There is a national consensus in Pakistan that the TTP problem persists because of external support from the Taliban and India.
पाकिस्तान में राष्ट्रीय सहमति यह है कि TTP समस्या बाहरी समर्थन के कारण बनी हुई है, तालिबान और भारत से।
- Creating a new term — Fitna-al-Khwarij — for the TTP highlights this new narrative that Pakistan wants to build.
TTP के लिए Fitna-al-Khwarij शब्द बनाने से यह नई कहानी उजागर होती है जिसे पाकिस्तान बनाना चाहता है।
- Calling the TTP as outsiders, and referring to them as being supported by external actors (India and the Afghan Taliban) is to shift the blame for its internal failures.
TTP को बाहरी और विदेशी समर्थक (भारत और अफगान तालिबान) के रूप में दिखाना इसके आंतरिक विफलताओं का दोष किसी और पर डालने की कोशिश है।

Internal fault

आंतरिक दोष

- Pakistan has a serious problem especially in the tribal regions that are undergoing a social and demographic transformation.
पाकिस्तान को गंभीर समस्या है, विशेष रूप से जनजातीय क्षेत्रों में जो सामाजिक और जनसांख्यिकीय परिवर्तन से गुजर रहे हैं।
- Pursuing the tribal region with strategies of the 1980s would not yield the desired results.
1980 के दशक की रणनीतियों के साथ जनजातीय क्षेत्र को नियंत्रित करने से वांछित परिणाम नहीं मिलेंगे।
- As the support to the PTM would reveal, the tribal region is looking for new players.
जैसा कि PTM के समर्थन से पता चलेगा, जनजातीय क्षेत्र नई राजनीतिक हस्तियों की तलाश में है।
- The old religious political parties are becoming irrelevant.
पुरानी धार्मिक राजनीतिक पार्टियाँ अप्रासंगिक होती जा रही हैं।



- Political parties and organisations like the PTI and the PTM can occupy that space; unfortunately, both are out of favour with the Establishment.
राजनीतिक पार्टियाँ और संगठन जैसे PTI और PTM उस जगह को ले सकते हैं; दुर्भाग्यवश, दोनों स्थापना के पक्ष में नहीं हैं।
- Blaming the Afghan Taliban for the TTP and carrying out attacks inside Afghanistan would be counterproductive.
TTP के लिए अफगान तालिबान को दोष देना और अफगानिस्तान के अंदर हमले करना प्रतिकूल होगा।
- Pakistan should know more about the Afghan Taliban and the Afghan nation.
पाकिस्तान को अफगान तालिबान और अफगान राष्ट्र के बारे में अधिक जानना चाहिए।
- Unilateral military actions from the east of the Durand Line since the British days, have never yielded the desired political results.
ब्रिटिश काल से Durand Line के पूर्व से एकतरफा सैन्य कार्रवाइयों से कभी वांछित राजनीतिक परिणाम नहीं मिले।

‘\$100-bn investment target under trade deal to be met well before 15-year goal’

ISS II: EFTA

T.C.A. Sharad Raghavan
NEW DELHI

The four countries of the European Free Trade Association (EFTA) will meet the target of investing \$100 billion in India well before the 15-year deadline set out in the trade deal signed between India and the grouping, Iceland's Ambassador to India Benedikt Höskuldsson told *The Hindu*.

The Trade and Economic Partnership Agreement between India and the four EFTA nations – Iceland, Liechtenstein, Norway, and Switzerland – was signed in March 2024 and came into force on October 1, 2025.

"I think we will achieve this amount before 15 years, I'll tell you that," Mr. Höskuldsson said in an interview. "I'm so optimistic. If I were to predict, I would say in 10 years we would be there, if not sooner."

Investment confidence

To illustrate his confidence about the investment prospects, the Ambassador gave the example of the Icelandic company Hampilðjan, which is a world leader in making fishing gear for deep sea fisheries.

"It had been sourcing high-quality nylon bands from a company, Kohinoor, in Maharashtra," Mr. Höskuldsson explained. "Based on the TEPA, they turned that around and actually bought a 75.1% stake in Kohinoor in Maharashtra."

"Now, the Icelandic company is bringing its production from Lithuania, Poland and different places, into India, using In-



Benedikt Höskuldsson

dia as the manufacturing hub for its products," he said. Hampilðjan had announced its purchase of Kohinoor in February.

"This illustrates how it is almost natural for a company in my country to come to India, having known that company for a long time as a supply source, and then coming in and investing," he said.

Regulatory reforms

The factor that encouraged those from Iceland, to invest in India are the regulatory reforms and the facilitation measures brought in by the Indian government.

"India will need to go through policy reforms and regulatory reforms, and I think we see that happening," Mr. Höskuldsson said. "That would need to continue, of course, but the main thing is what you're doing is you're strengthening domestically the markets. So, the foreigners, who are looking into it as a potential, they see all the right signs for this to happen, that's why they come."

In particular, the Ambassador highlighted the dedicated EFTA desk set

up by the Ministry of Commerce and Industry aimed at reducing regulatory friction faced by companies in the four EFTA countries.

"One of the criticisms that has been issued many times especially by companies from countries like Iceland that are very small, and have limited human resources, is against the bureaucratic procedures that you have here."

"We have seen examples of these being addressed," he added. "I think there are so many positive signs that issues that have been problematic will be and are being addressed."

TEPA in India

The Ambassador also said the government of Iceland has reached an agreement with the government of Norway and the EFTA desk to promote the TEPA inside India.

"We are going to be promoting TEPA through different sectors over the next 18 months," he said. "That's how we want to use the time that we now have ahead of others [other countries in talks with India for a trade deal] to actually be in a better position when the other agreements materialise, which they will."

He explained Iceland would be bringing in businesses, helping different businesses to work closer together and supporting its exporters and investors to look into India. The sectors Iceland is looking to promote are clean energy, green technology, energy efficiency, fisheries, and medical equipment, the ambassador explained.

• Pushing the Afghan refugees back; unilateral closure of border points; and blaming Afghanistan for the TTP problem would only alienate the Afghan nation.

अफगान शरणार्थियों को वापस भेजना; सीमा बिंदुओं को एकतरफा बंद करना; और TTP समस्या का दोष अफगानिस्तान पर डालना केवल अफगान राष्ट्र को अलग करेगा।

• For Pakistan, that would be a bigger threat than what the TTP is today.

पाकिस्तान के लिए, यह आज TTP से बड़ा खतरा होगा।



‘\$100-bn investment target under trade deal to be met well before 15-year goal’ ‘व्यापार समझौते के तहत \$100 बिलियन निवेश लक्ष्य 15-वर्षीय लक्ष्य से पहले ही पूरा होगा’

- The four countries of the **European Free Trade Association (EFTA)** will meet the target of investing **\$100 billion** in **India** well before the 15-year deadline set out in the trade deal signed between **India** and the grouping, **Iceland’s Ambassador to India Benedikt Höskuldsson** told **The Hindu**.
यूरोपीय मुक्त व्यापार संघ (EFTA) के चार देशों द्वारा भारत में \$100 बिलियन निवेश का लक्ष्य उस 15-वर्षीय समय सीमा से पहले ही पूरा कर लिया जाएगा, जो भारत और इस समूह के बीच किए गए व्यापार समझौते में तय की गई थी, यह जानकारी आइसलैंड के भारत राजदूत बनेडिक्ट हॉस्कुल्डसन ने द हिंदू को दी।
- The **Trade and Economic Partnership Agreement** between **India** and the four **EFTA nations — Iceland, Liechtenstein, Norway, and Switzerland** — was signed in **March 2024** and came into force on **October 1, 2025**.
भारत और चार EFTA देशों — आइसलैंड, लिकटेन्स्टीन, नॉर्वे और स्विट्जरलैंड के बीच व्यापार और आर्थिक साझेदारी समझौता मार्च 2024 में हस्ताक्षरित हुआ और 1 अक्टूबर 2025 से लागू हुआ।
- “I think we will achieve this amount before 15 years, I’ll tell you that,” Mr. **Höskuldsson** said in an interview. “I’m so optimistic. If I were to predict, I would say in 10 years we would be there, if not sooner.”
“मुझे लगता है कि हम यह राशि 15 वर्षों से पहले ही प्राप्त कर लेंगे, मैं आपको बता दूँ,” श्री हॉस्कुल्डसन ने एक साक्षात्कार में कहा। “मैं बहुत आशावादी हूँ। अगर मुझे भविष्यवाणी करनी हो, तो मैं कहूंगा कि 10 वर्षों में हम वहां होंगे, यदि जल्दी नहीं तो।”

Investment confidence निवेश विश्वास

- To illustrate his confidence about the investment prospects, the Ambassador gave the example of the **Icelandic company Hampiðjan**, which is a world leader in making **fishing gear for deep sea fisheries**.
निवेश संभावनाओं के प्रति अपने विश्वास को दर्शाने के लिए, राजदूत ने आइसलैंड कंपनी हम्पिदजान का उदाहरण दिया, जो डीप सी मत्स्य पालन के लिए मछली पकड़ने के उपकरण बनाने में विश्व में अग्रणी है।
- “It had been sourcing high-quality nylon bands from a company, **Kohinoor**, in **Maharashtra**,” Mr. **Höskuldsson** explained.
“यह महाराष्ट्र की एक कंपनी, कोहिनूर, से उच्च गुणवत्ता वाले नायलॉन बैंड प्राप्त कर रही थी,” श्री हॉस्कुल्डसन ने समझाया।
- “Based on the **TEPA**, they turned that around and actually bought a **75.1% stake** in **Kohinoor** in **Maharashtra**.”
“TEPA के आधार पर, उन्होंने इसे उलट दिया और वास्तव में महाराष्ट्र में कोहिनूर में 75.1% हिस्सेदारी खरीदी।”
- “Now, the Icelandic company is bringing its production from **Lithuania, Poland** and different places, into **India**, using **India** as the **manufacturing hub** for its products,” he said.
Hampiðjan had announced its purchase of **Kohinoor** in February.
“अब, आइसलैंड कंपनी अपने उत्पादन को लिथुआनिया, पोलैंड और अन्य स्थानों से भारत ला रही है, और अपने उत्पादों के लिए भारत को निर्माण केंद्र के रूप में उपयोग कर रही है,” उन्होंने कहा। हम्पिदजान ने फरवरी में कोहिनूर की खरीद की घोषणा की थी।
- “This illustrates how it is almost natural for a company in my country to come to **India**, having known that company for a long time as a supply source, and then coming in and investing,” he said.
“यह दिखाता है कि मेरे देश की किसी कंपनी के लिए भारत आना लगभग स्वाभाविक है, क्योंकि वह लंबे समय से उस कंपनी को एक आपूर्ति स्रोत के रूप में जानती थी, और फिर आकर निवेश करती है,” उन्होंने कहा।

Regulatory reforms नियामक सुधार

- The factor that encouraged foreign firms, including those from **Iceland**, to invest in **India** are the **regulatory reforms** and the **facilitation measures** brought in by the **Indian**



government.

विदेशी कंपनियों, जिनमें **आइसलैंड** की कंपनियां भी शामिल हैं, को **भारत** में निवेश के लिए प्रोत्साहित करने वाले कारक **नियामक सुधार** और **सुविधा उपाय** हैं, जो **भारतीय सरकार** ने लाए हैं।

- “India will need to go through **policy reforms** and **regulatory reforms**, and I think we see that happening,” Mr. **Höskuldsson** said. “That would need to continue, of course, but the main thing is what you’re doing is you’re strengthening domestically the markets. So, the foreigners, who are looking into it as a potential, they see all the right signs for this to happen, that’s why they come.”
“**भारत** को **नीति सुधारों** और **नियामक सुधारों** से गुजरना होगा, और मुझे लगता है कि हम यह होते देख रहे हैं,” श्री **हॉस्कुल्डसन** ने कहा। “यह निश्चित रूप से जारी रहना चाहिए, लेकिन मुख्य बात यह है कि आप जो कर रहे हैं वह आंतरिक रूप से बाजारों को मजबूत करना है। इसलिए, विदेशी जो इसे संभावित रूप में देख रहे हैं, वे सभी सही संकेत देखते हैं कि यह संभव हो, इसलिए वे आते हैं।”
- In particular, the Ambassador highlighted the dedicated **EFTA desk** set up by the **Ministry of Commerce and Industry** aimed at reducing regulatory friction faced by companies in the four **EFTA countries**.
विशेष रूप से, राजदूत ने **वाणिज्य और उद्योग मंत्रालय** द्वारा स्थापित समर्पित **EFTA डेस्क** को उजागर किया, जिसका उद्देश्य चार **EFTA देशों** की कंपनियों को होने वाली नियामक कठिनाइयों को कम करना है।
- “One of the criticisms that has been issued many times especially by companies from countries like **Iceland** that are very small, and have limited human resources, is against the **bureaucratic procedures** that you have here.”
“एक आलोचना जो कई बार की गई है, विशेष रूप से **आइसलैंड** जैसे छोटे देशों की कंपनियों द्वारा, जिनके पास सीमित मानव संसाधन हैं, वह यहां की **नौकरशाही प्रक्रियाओं** के खिलाफ है।”
- “We have seen examples of these being addressed,” he added. “I think there are so many positive signs that issues that have been problematic will be and are being addressed.”
“हमने देखा है कि इन समस्याओं का समाधान किया जा रहा है,” उन्होंने कहा। “मुझे लगता है कि कई सकारात्मक संकेत हैं कि जो मुद्दे समस्याग्रस्त रहे हैं, उन्हें संबोधित किया जा रहा है और किया जाएगा।”

TEPA in India भारत में TEPA

- The Ambassador also said the government of **Iceland** has reached an agreement with the government of **Norway** and the **EFTA desk** to promote the **TEPA** inside **India**.
राजदूत ने यह भी कहा कि **आइसलैंड** की सरकार ने **नॉर्वे** की सरकार और **EFTA डेस्क** के साथ **TEPA** को **भारत** में बढ़ावा देने के लिए एक समझौता किया है।
- “We are going to be promoting **TEPA** through different sectors over the next 18 months,” he said.
“हम अगले 18 महीनों में विभिन्न क्षेत्रों के माध्यम से **TEPA** को बढ़ावा देंगे,” उन्होंने कहा।
- “That’s how we want to use the time that we now have ahead of others [other countries in talks with India for a trade deal] to actually be in a better position when the other agreements materialise, which they will.”
“यही तरीका है कि हम अब जो समय हमारे पास है, उसका उपयोग अन्य देशों [जो भारत के साथ व्यापार समझौते की बातचीत में हैं] से पहले करें, ताकि जब अन्य समझौते साकार हों, हम बेहतर स्थिति में हों।”
- He explained **Iceland** would be bringing in businesses, helping different businesses to work closer together and supporting its exporters and investors to look into **India**.
उन्होंने समझाया कि **आइसलैंड** व्यवसाय लाएगा, विभिन्न व्यवसायों को करीब से काम करने में मदद करेगा और अपने निर्यातकों और निवेशकों का समर्थन करेगा ताकि वे **भारत** में देखें।
- The sectors **Iceland** is looking to promote are **clean energy, green technology, energy efficiency, fisheries, and medical equipment**, the ambassador explained.
राजदूत ने बताया कि वे क्षेत्र जिन्हें **आइसलैंड** बढ़ावा देना चाहता है, वे हैं **स्वच्छ ऊर्जा, हरित प्रौद्योगिकी, ऊर्जा दक्षता, मत्स्य पालन, और चिकित्सा उपकरण**।



Iran ratifies law to join UN convention against terror finance

GS II: International Agreements
TEHRAN

Iran ratified a law joining a United Nations convention against terror financing, local media reported on Wednesday, in hopes that it will lead to access to global banking, an easing of trade and relieving pressure on its sanctions-hit economy.

Iranian President Masoud Pezeshkian was elected last year on a promise to ease relations with the West and secure the lifting of sanctions that are hurting the economy.

His administration is trying to bring the country into line with the demands of the Financial Action Task Force (FATF), which monitors money laundering and terrorist financing.

Tehran has for years provided support to the Palestinian Hamas militant group, Lebanon's Hezbollah group, and Yemen's Houthis – all designated as "terrorist" groups by the U.S., along with Iran's Islamic Revolutionary Guard Corps (IRGC).

Iran was returned to the FATF blacklist of non-cooperative countries in 2020, which includes North Korea and Myanmar.

Along with heavy international sanctions, particularly by the U.S., Iran's inclusion on the blacklist has isolated the country's financial sector and severely restricted its access to the international banking system.

"President Masoud Pezeshkian has promulgated... the law on the Islamic Republic of Iran's accession to the International Convention for the Suppression of the Financing of Terrorism (CFT)," Tas-

Some in Iran argue that joining the CFT would grant enemy countries access to sensitive information

nim news agency said on Wednesday.

Joining the CFT treaty has been the subject of a heated debate in recent weeks, with ultra-conservatives arguing it could grant "enemy" countries access to sensitive economic and military information, particularly related to Iran's support of regional militant groups

Iranian lawmaker Mahdi Shahriari said earlier this month that Iran's non-membership in the FATF and CFT had "created difficulties" in trade, including with key allies Russia and China, according to the pro-labour news agency ILNA.

Reformists and moderates in Tehran view compliance with FATF standards as a vital step toward reconnecting with the international banking system and stabilising the economy.

However, international sanctions remain the primary obstacle to Iran's global financial and trade activities.

Local media reported on Tuesday that an Iranian representative attended an FATF meeting in Paris for the first time in six years.

In September, the United Nations reimposed sanctions on Iran.

The move came after months of tense diplomacy aimed at reviving nuclear talks derailed since June, when Israeli and U.S. forces bombed Iranian nuclear facilities.

Iran ratifies law to join UN convention against terror finance

ईरान ने आतंक वित्त पोषण के खिलाफ संयुक्त राष्ट्र संधि में शामिल होने के लिए कानून को मंजूरी दी

• Iran ratified a law joining a United Nations convention against terror financing, local media reported on Wednesday, in hopes that it will lead to access to global banking, an easing of trade and relieving pressure on its sanctions-hit economy.

ईरान ने आतंक वित्त पोषण के खिलाफ संयुक्त राष्ट्र संधि में शामिल होने के लिए एक कानून को मंजूरी दी, स्थानीय मीडिया ने बुधवार को बताया, यह उम्मीद जताई जा रही है कि इससे वैश्विक बैंकिंग तक पहुँच, व्यापार में सहजता और उसके प्रतिबंधों से प्रभावित अर्थव्यवस्था पर दबाव कम होगा।

• Iranian President Masoud Pezeshkian was elected last year on a promise to ease relations with the West and secure the lifting of sanctions that are hurting the economy.



ईरानी राष्ट्रपति मसूद पेज़ेशकियन को पिछले साल पश्चिम के साथ संबंधों को सुधारने और अर्थव्यवस्था को प्रभावित करने वाले प्रतिबंधों को हटाने के वादे पर चुना गया।

- His administration is trying to bring the country into line with the demands of the **Financial Action Task Force (FATF)**, which monitors **money laundering** and **terrorist financing**.
उनका प्रशासन देश को **फाइनेंशियल एक्शन टास्क फोर्स (FATF)** की मांगों के अनुरूप लाने की कोशिश कर रहा है, जो **मनी लॉन्ड्रिंग** और **आतंकवादी वित्त पोषण** की निगरानी करता है।
- Tehran has for years provided support to the **Palestinian Hamas militant group, Lebanon's Hezbollah group, and Yemen's Houthis** — all designated as “terrorist” groups by the **U.S.**, along with Iran's **Islamic Revolutionary Guard Corps (IRGC)**.
तेहरान ने वर्षों से **फिलिस्तीनी हमास आतंकवादी समूह, लेबनान का हिजबुल्लाह समूह और यमन के हूथी** का समर्थन किया है — सभी को **अमेरिका** द्वारा “आतंकवादी” समूह घोषित किया गया है, साथ ही ईरान के **इस्लामिक रिवाल्यूशनरी गार्ड कोर (IRGC)** को भी।
- Iran was returned to the **FATF blacklist of non-cooperative countries** in 2020, which includes **North Korea and Myanmar**.
2020 में ईरान को **FATF की गैर-सहयोगी देशों की काली सूची** में वापस डाल दिया गया, जिसमें **उत्तरी कोरिया और म्यांमार** शामिल हैं।
- Along with heavy international sanctions, particularly by the **U.S.**, Iran's inclusion on the blacklist has isolated the country's **financial sector** and severely restricted its access to the **international banking system**.
भारी अंतरराष्ट्रीय प्रतिबंधों के साथ, विशेष रूप से **अमेरिका** द्वारा, ईरान का काली सूची में शामिल होना देश के **वित्तीय क्षेत्र** को अलग-थलग कर दिया है और इसके **अंतरराष्ट्रीय बैंकिंग सिस्टम** तक पहुँच को गंभीर रूप से सीमित कर दिया है।
- “**President Masoud Pezeshkian has promulgated... the law on the Islamic Republic of Iran's accession to the International Convention for the Suppression of the Financing of Terrorism (CFT)**,” Tasnim news agency said on Wednesday.
“**राष्ट्रपति मसूद पेज़ेशकियन ने... इस्लामिक गणराज्य ईरान के आतंक वित्त पोषण (CFT) के अंतरराष्ट्रीय संधि में शामिल होने के कानून को लागू किया है,**” तस्नीम समाचार एजेंसी ने बुधवार को कहा।
- Joining the **CFT treaty** has been the subject of a heated debate in recent weeks, with **ultra-conservatives** arguing it could grant “enemy” countries access to sensitive economic and military information, particularly related to **Iran's support of regional militant groups**.
हाल के हफ्तों में **CFT संधि** में शामिल होना एक गर्मागर्म बहस का विषय रहा है, जिसमें **अत्यंत रूढ़िवादी** तर्क देते हैं कि इससे “शत्रु” देशों को संवेदनशील आर्थिक और सैन्य जानकारी तक पहुँच मिल सकती है, विशेष रूप से **क्षेत्रीय आतंकवादी समूहों के लिए ईरान के समर्थन** से संबंधित।
- **Iranian lawmaker Mahdi Shahriari** said earlier this month that Iran's non-membership in the **FATF and CFT** had “created difficulties” in trade, including with key allies **Russia and China**, according to the pro-labour news agency **ILNA**.
ईरानी सांसद महदी शहरीरी ने इस महीने की शुरुआत में कहा कि ईरान की **FATF और CFT** में गैर-सदस्यता ने व्यापार में “मुश्किलें पैदा की हैं”, जिसमें प्रमुख सहयोगी **रूस और चीन** भी शामिल हैं, प्रो-लेबर समाचार एजेंसी **ILNA** के अनुसार।
- Reformists and moderates in Tehran view compliance with **FATF standards** as a vital step toward reconnecting with the **international banking system** and stabilising the economy.
तेहरान के सुधारवादी और मध्यमपंथी **FATF मानकों** के अनुपालन को **अंतरराष्ट्रीय बैंकिंग सिस्टम** से पुनः जुड़ने और अर्थव्यवस्था को स्थिर करने की दिशा में एक महत्वपूर्ण कदम मानते हैं।
- However, international **sanctions** remain the primary obstacle to Iran's global **financial and trade activities**.
हालांकि, अंतरराष्ट्रीय **प्रतिबंध** ईरान की वैश्विक **वित्तीय और व्यापार गतिविधियों** के लिए मुख्य बाधा बने हुए हैं।
- Local media reported on Tuesday that an **Iranian representative attended an FATF meeting in Paris for the first time in six years**.
स्थानीय मीडिया ने मंगलवार को बताया कि एक **ईरानी प्रतिनिधि** ने छह वर्षों में पहली बार पेरिस में **FATF बैठक** में भाग लिया।
- In September, the **United Nations reimposed sanctions on Iran**.
सितंबर में, **संयुक्त राष्ट्र** ने ईरान पर प्रतिबंध फिर से लागू किए।
- The move came after months of tense diplomacy aimed at reviving **nuclear talks** derailed since June, when **Israeli and U.S. forces bombed Iranian nuclear facilities**.



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

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

CONTACT: 9971932488



यह कदम उस समय आया जब लंबे समय तक तनावपूर्ण कूटनीति के प्रयासों के बाद नाभिकीय वार्ता को फिर से शुरू करने का प्रयास विफल हो गया, जब इजरायली और अमेरिकी बलों ने ईरानी नाभिकीय सुविधाओं पर बमबारी की थी।

GS Paper III: Economy, S&T, Environment, DM, &IS	
TOPICS COVERED	23_10_2025
1.	Union govt. proposes mandatory labelling of synthetic AI-generated content on social media केंद्र सरकार ने सोशल मीडिया पर कृत्रिम बुद्धिमत्ता (AI) से निर्मित सिंथेटिक सामग्री के अनिवार्य लेबलिंग का प्रस्ताव दिया
2.	Haryana worst hit by air pollution after Deepavali festivities: CPCB दीवाली उत्सवों के बाद हरियाणा वायु प्रदूषण से सबसे अधिक प्रभावित: सीपीसीबी
3.	Kerala will officially be first State 'free of extreme poverty' केरल आधिकारिक रूप से 'चरम गरीबी से मुक्त' पहला राज्य बनेगा
4.	When a parasitic wasp saved South's tapioca crops जब एक परजीवी ततैया ने दक्षिण की कसावा (टैपिओका) फसल को बचाया
5.	NSCN(I-M) leader Thuingaleng Muivah returns home in Manipur after six decades एनएससीएन(I-M) नेता थुइंगलेंग मुइवाह छह दशकों बाद मणिपुर में घर लौटे
6.	India aims at self-reliance in solar physics, space weather सौर भौतिकी और अंतरिक्ष मौसम में आत्मनिर्भरता की दिशा में भारत
7.	Scientists use 'atomic stencils' to make designer nanoparticles वैज्ञानिक डिज़ाइनर नैनोपार्टिकल्स बनाने के लिए 'एटॉमिक स्टेंसिल' का उपयोग करते



	लक्ष्य
8.	QUIZ
9.	A path for a battered and broken Himachal Pradesh एक पथ घायल और टूटे हुए हिमाचल प्रदेश के लिए
10.	Tapping the shine चमक का लाभ उठाना
11.	The tailwinds from lower global oil prices नीचे वैश्विक तेल कीमतों से मिलने वाली लाभकारी हवा
12.	Chennai stood out for its severe pollution surge during Deepavali दीपावली के दौरान चेन्नई में प्रदूषण में तीव्र वृद्धि

Union govt. proposes mandatory labelling of synthetic AI-generated content on social media

GS III: S&T

Aroon Deep
NEW DELHI

The Electronics and Information Technology Ministry on Wednesday proposed mandatory disclosure and labelling of artificial intelligence (AI)-generated "synthetic" content on social media platforms.

The Ministry released a draft amendment to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, that requires social media companies to allow users to self-declare if the content they upload is AI-generated. In cases where users fail to make such declarations, platforms must proactively detect and label AI-generated content.

The declaration must

Disclosure mandate

The draft amendment to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, outlines the Ministry's proposed approach to **regulating synthetic content**

- All synthetic content — whether video, photo, audio, or text — must carry a disclosure

- The disclosure should cover at least 10% of the surface area in all AI-generated audiovisual posts



- Users must be given the option to self-declare AI-generated posts

cover 10% of the content's area, and applies to all types of synthetic content, including text, video, and audio, and is not limited to photorealistic content, according to officials and the draft text.

"In Parliament as well as many other fora, people have demanded that something should be done

about the deepfakes which are harming society," IT Minister Ashwini Vaishnaw told presspersons.

"People are using some prominent persons' images and creating deepfakes, which are then affecting their personal lives, privacy as well as [creating] various misconceptions in society. So the step we

have taken is making sure that users get to know whether something is synthetic or real. Once users know, they can take a call. That distinction will be led through mandatory data labelling."

The proposal marks a shift in the Ministry's approach to synthetic content. It had previously contended that existing penalties against impersonation were sufficient to address the worst harms from AI-generated content. The proposal brings a long-foreshadowed "tweak" to that stand, a senior official said.

It says that "[w]here an intermediary offers a computer resource which may enable, permit, or facilitate the creation, generation, modification or alteration of information as

synthetically generated information, it shall ensure that every such information is prominently labelled or embedded with a permanent unique metadata or identifier, by whatever name called, in a manner that such label, metadata or identifier is visibly displayed or made audible in a prominent manner on or within that synthetically generated information, covering at least ten per cent of the surface area of the visual display".

The Ministry has sought feedback on the draft amendment to the IT Rules till November 6. Officials claimed that in private conversations, social media platforms had indicated that they had the technical capabilities to implement what these rules require.



Union govt. proposes mandatory labelling of synthetic AI-generated content on social media

केंद्र सरकार ने सोशल मीडिया पर कृत्रिम बुद्धिमत्ता (AI) से निर्मित सिंथेटिक सामग्री के अनिवार्य लेबलिंग का प्रस्ताव दिया

- The **Electronics and Information Technology Ministry** on **Wednesday** proposed **mandatory disclosure and labelling** of artificial intelligence (AI)-generated “synthetic” content on **social media platforms**.
इलेक्ट्रॉनिक्स और सूचना प्रौद्योगिकी मंत्रालय ने बुधवार को सोशल मीडिया प्लेटफॉर्म पर कृत्रिम बुद्धिमत्ता (AI) से निर्मित “सिंथेटिक” सामग्री के अनिवार्य प्रकटीकरण और लेबलिंग का प्रस्ताव रखा।
- The Ministry released a **draft amendment** to the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**, that requires **social media companies** to allow users to **self-declare** if the content they upload is AI-generated.
मंत्रालय ने सूचना प्रौद्योगिकी (मध्यस्थ दिशानिर्देश और डिजिटल मीडिया आचार संहिता) नियम, 2021 में **मसौदा संशोधन** जारी किया, जो सोशल मीडिया कंपनियों को यह सुनिश्चित करने की आवश्यकता बताता है कि उपयोगकर्ता स्वयं घोषित करें कि वे जो सामग्री अपलोड कर रहे हैं वह AI-निर्मित है या नहीं।
- In cases where users fail to make such declarations, **platforms must proactively detect and label AI-generated content**.
जहां उपयोगकर्ता ऐसा घोषित करने में विफल रहते हैं, वहां **प्लेटफॉर्म को सक्रिय रूप से AI-निर्मित सामग्री की पहचान और लेबलिंग करनी होगी**।
- The **declaration** must cover **10% of the content’s area**, and applies to **all types of synthetic content**, including **text, video, and audio**, and is **not limited to photorealistic content**, according to officials and the draft text.
घोषणा को सामग्री के क्षेत्रफल के **10% हिस्से** को कवर करना होगा और यह सभी प्रकार की सिंथेटिक सामग्री, जैसे **पाठ, वीडियो और ऑडियो**, पर लागू होगी, और यह केवल **फोटो-यथार्थवादी सामग्री** तक सीमित नहीं होगी, अधिकारियों और मसौदा पाठ के अनुसार।
- “In **Parliament** as well as many other fora, people have demanded that something should be done about the **deepfakes** which are harming society,” **IT Minister Ashwini Vaishnaw** told presspersons.
“संसद सहित कई अन्य मंचों पर लोगों ने मांग की है कि **डीपफेक्स** के बारे में कुछ किया जाना चाहिए जो समाज को नुकसान पहुंचा रहे हैं,” **आईटी मंत्री अश्विनी वैष्णव** ने पत्रकारों से कहा।
- “People are using some prominent persons’ images and creating **deepfakes**, which are then affecting their **personal lives, privacy** as well as creating **various misconceptions in society**. So the step we have taken is making sure that users get to know whether something is **synthetic or real**. Once users know, they can take a call. That distinction will be led through **mandatory data labelling**.”
“लोग कुछ प्रमुख व्यक्तियों की छवियों का उपयोग करके **डीपफेक्स** बना रहे हैं, जो उनकी **निजी जिंदगी, गोपनीयता** को प्रभावित कर रहे हैं और **समाज में विभिन्न भ्रांतियां** पैदा कर रहे हैं। इसलिए हमने यह कदम उठाया है कि उपयोगकर्ताओं को यह पता चले कि कोई सामग्री **सिंथेटिक है या वास्तविक**। एक बार उपयोगकर्ताओं को पता चल जाए, तो वे निर्णय ले सकते हैं। यह भेदभाव **अनिवार्य डेटा लेबलिंग** के माध्यम से किया जाएगा।”
- The **proposal** marks a shift in the **Ministry’s approach to synthetic content**. It had previously contended that **existing penalties against impersonation** were sufficient to address the worst harms from **AI-generated content**.
यह प्रस्ताव मंत्रालय के सिंथेटिक सामग्री के प्रति दृष्टिकोण में बदलाव को दर्शाता है। इससे पहले, मंत्रालय ने तर्क दिया था कि **छलवेश के खिलाफ मौजूदा दंड** AI-निर्मित सामग्री से होने वाले गंभीर नुकसान को रोकने के लिए पर्याप्त हैं।
- The **proposal** brings a long-foreshadowed “**tweak**” to that stand, a **senior official** said.
एक **वरिष्ठ अधिकारी** ने कहा कि यह प्रस्ताव उस रुख में लंबे समय से प्रत्याशित “**संशोधन**” लाता है।
- It says that “where an **intermediary** offers a **computer resource** which may enable, permit, or facilitate the creation, generation, modification or alteration of information as **synthetically generated information**, it shall ensure that every such information is prominently **labelled or embedded with a permanent unique metadata or identifier**.”
इसमें कहा गया है कि “जहां कोई **मध्यस्थ** एक **कंप्यूटर संसाधन** प्रदान करता है जो **सिंथेटिक रूप से उत्पन्न**



सूचना के निर्माण, सृजन, संशोधन या परिवर्तन को सक्षम, अनुमति या सुविधाजनक बनाता है, उसे यह सुनिश्चित करना होगा कि ऐसी हर सूचना पर स्पष्ट रूप से **स्थायी अद्वितीय मेटाडेटा या पहचानकर्ता** अंकित हो।”

- It further mandates that such a label, metadata or identifier must be **visibly displayed or made audible in a prominent manner**, covering **at least 10% of the surface area of the visual display**.
यह आगे अनिवार्य करता है कि ऐसा लेबल, मेटाडेटा या पहचानकर्ता **स्पष्ट रूप से दृश्य या श्रव्य रूप में प्रदर्शित किया जाए**, जो **दृश्य प्रदर्शन के कम से कम 10% क्षेत्रफल** को कवर करे।
- The **Ministry** has sought **feedback** on the **draft amendment** to the **IT Rules** till **November 6**.
मंत्रालय ने **आईटी नियमों के मसौदा संशोधन** पर **6 नवंबर** तक **प्रतिक्रिया** मांगी है।
- Officials claimed that in private conversations, **social media platforms** had indicated that they had the **technical capabilities** to implement what these rules require.
अधिकारियों ने दावा किया कि निजी बातचीत में **सोशल मीडिया प्लेटफॉर्म** ने संकेत दिया है कि उनके पास इन नियमों को लागू करने की **तकनीकी क्षमता** मौजूद है।

Haryana worst hit by air pollution after Deepavali festivities: CPCB

GS III: Environment

Ashok Kumar
GURUGRAM

Following Deepavali celebrations in the country, Haryana emerged as the worst-affected State due to air pollution, according to **Central Pollution Control Board (CPCB)** data.

Figures released on Tuesday showed that 10 out of the 16 cities with “severe” and “very poor” air quality after the festival were from Haryana.

Jind, 130 km northwest of Delhi, fared the worst among the 271 cities that figured in the **CPCB’s daily air quality index (AQI) bulletin** for October 21. The city recorded a 24-hour average AQI of 421 at 4 p.m., categorised as “severe”, against 248 on October 20.

It was closely followed

10 out of 16 cities in the country with ‘severe’ and ‘very poor’ air quality were from the State

by Dharuhera, an industrial hub in Rewari, at 412, from 305 on October 20, moving from the “very poor” to “severe” category.

Narnaul, a town in south Haryana, experienced “very poor” air quality with a reading of 390. The air quality in the State’s IT hub, Gurugram, too deteriorated from the “poor” to “very poor” category, with its AQI rising from 295 to 370 within 24 hours.

Manesar, an automotive hub adjoining Gurugram, also recorded “very poor” air quality at 320. The air

quality in Bhiwani and Charkhi Dadri increased to 327 and 353, respectively. Bahadurgarh, Rohtak, and Sirsa recorded “very poor” AQI values of 368, 376, and 353, respectively.

The remaining six cities that recorded “severe” and “very poor” air quality were Bhiwadi (364), Delhi (351), Ghaziabad (324), Noida (320), Hapur (314), and Nandesari (303).

“Haryana recorded only three cases of stubble burning on October 21, but unbridled bursting of crackers increased air pollution levels. Pollution in the neighbouring States also affected Haryana. We are mulling a ban on construction activities,” said Haryana State Pollution Control Board member secretary Pardeep Kumar.



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Haryana worst hit by air pollution after Deepavali festivities: CPCB दीवाली उत्सवों के बाद हरियाणा वायु प्रदूषण से सबसे अधिक प्रभावित: सीपीसीबी

- Following **Deepavali celebrations** in the country, **Haryana** emerged as the **worst-affected State** due to air pollution, according to **Central Pollution Control Board (CPCB)** data.
देश में दीवाली उत्सवों के बाद केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) के आंकड़ों के अनुसार हरियाणा वायु प्रदूषण से सबसे अधिक प्रभावित राज्य के रूप में उभरा।
- Figures released on **Tuesday** showed that **10 out of the 16 cities** with “severe” and “very poor” air quality after the festival were from **Haryana**.
मंगलवार को जारी आंकड़ों से पता चला कि त्योहार के बाद “गंभीर” और “बहुत खराब” वायु गुणवत्ता वाले **16 शहरों में से 10 शहर हरियाणा** से थे।
- **Jind**, 130 km northwest of **Delhi**, fared the **worst** among the **271 cities** that figured in the **CPCB’s daily air quality index (AQI) bulletin for October 21**. The city recorded a **24-hour average AQI of 421** at 4 p.m., categorised as “severe”, against **248 on October 20**.
दिल्ली से 130 किमी उत्तर-पश्चिम में स्थित जींद ने 21 अक्टूबर के सीपीसीबी के दैनिक वायु गुणवत्ता सूचकांक (एक्यूआई) बुलेटिन में शामिल 271 शहरों में सबसे खराब प्रदर्शन किया। शहर ने 4 बजे तक 24 घंटे का औसत एक्यूआई 421 दर्ज किया, जिसे “गंभीर” श्रेणी में रखा गया, जबकि 20 अक्टूबर को यह 248 था।
- It was closely followed by **Dharuhera**, an industrial hub in **Rewari**, at **412**, from **305 on October 20**, moving from the “very poor” to “severe” category.
इसके बाद रेवाड़ी के औद्योगिक केंद्र धारूहेड़ा का स्थान रहा, जहां एक्यूआई 20 अक्टूबर को 305 से बढ़कर 412 हुआ, जिससे यह “बहुत खराब” से “गंभीर” श्रेणी में पहुंच गया।
- **Narnaul**, a town in south **Haryana**, experienced “very poor” air quality with a reading of **390**. The air quality in the State’s **IT hub, Gurugram**, too deteriorated from the “poor” to “very poor” category, with its **AQI rising from 295 to 370** within 24 hours.
दक्षिण हरियाणा के शहर नारनौल में वायु गुणवत्ता “बहुत खराब” रही, जिसका रीडिंग 390 था। राज्य के आईटी हब गुरुग्राम में भी वायु गुणवत्ता “खराब” से “बहुत खराब” हो गई, जहां 24 घंटे में एक्यूआई 295 से बढ़कर 370 हो गया।
- **Manesar**, an automotive hub adjoining **Gurugram**, also recorded “very poor” air quality at **320**. The air quality in **Bhiwani** and **Charkhi Dadri** increased to **327** and **353**, respectively.
गुरुग्राम से सटे ऑटोमोबाइल हब मानेसर में भी वायु गुणवत्ता “बहुत खराब” रही और एक्यूआई 320 दर्ज किया गया। भिवानी और छारखी दादरी में क्रमशः 327 और 353 एक्यूआई दर्ज किया गया।
- **Bahadurgarh**, **Rohtak**, and **Sirsa** recorded “very poor” AQI values of **368**, **376**, and **353**, respectively.
बहादुरगढ़, रोहतक और सिरसा में “बहुत खराब” एक्यूआई क्रमशः 368, 376, और 353 दर्ज किया गया।
- The remaining six cities that recorded “severe” and “very poor” air quality were **Bhiwadi (364)**, **Delhi (351)**, **Ghaziabad (324)**, **Noida (320)**, **Hapur (314)**, and **Nandesari (303)**.
बाकी छह शहर जिनमें “गंभीर” और “बहुत खराब” वायु गुणवत्ता दर्ज की गई, वे थे भिवाड़ी (364), दिल्ली (351), गाजियाबाद (324), नोएडा (320), हापुड़ (314) और नंदेसरी (303)।
- “**Haryana** recorded only **three cases of stubble burning** on **October 21**, but unbridled bursting of crackers increased air pollution levels. Pollution in the neighbouring States also affected Haryana. We are mulling a ban on construction activities,” said **Haryana State Pollution Control Board member secretary Pardeep Kumar**.
“हरियाणा में 21 अक्टूबर को पराली जलाने के केवल तीन मामले दर्ज किए गए, लेकिन पटाखों की अंधाधुंध आतिशबाजी से वायु प्रदूषण का स्तर बढ़ गया। पड़ोसी राज्यों का प्रदूषण भी हरियाणा को प्रभावित कर रहा है। हम निर्माण गतिविधियों पर प्रतिबंध लगाने पर विचार कर रहे हैं,” हरियाणा राज्य प्रदूषण नियंत्रण बोर्ड के सदस्य सचिव प्रदीप कुमार ने कहा।



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Kerala will officially be first State 'free of extreme poverty'

Kerala will officially be first State 'free of extreme poverty'
केरल आधिकारिक रूप से 'चरम गरीबी से मुक्त' पहला राज्य बनेगा

• Kerala Chief Minister **Pinarayi Vijayan** will officially declare the State free from **extreme poverty** at a function to be held at **Central Stadium** in the capital on **November 1**.

केरल के मुख्यमंत्री **पिनराई विजयन** राजधानी के **सेंट्रल स्टेडियम** में **1 नवंबर** को होने वाले एक समारोह में राज्य को **चरम गरीबी से मुक्त** घोषित करेंगे।

• Actors **Mohanlal, Mammootty and Kamal Haasan** will be special guests at the event to which all **State Ministers** as well as **Leader of the Opposition V.D. Satheesan** will be invited, **Minister for Local Self-Governments M.B. Rajesh** said at a press conference in **Thiruvananthapuram** on **Wednesday**.

अभिनेता **मोहलाल, ममूटी और कमल हासन** इस कार्यक्रम के विशेष अतिथि होंगे, जिसमें सभी **राज्य मंत्री** और **विपक्ष के नेता वी.डी. सतीसन** को आमंत्रित किया जाएगा, यह बात **स्थानीय स्वशासन मंत्री एम.बी. राजेश** ने **बुधवार** को **तिरुवनंतपुरम** में एक प्रेस कॉन्फ्रेंस में कही।

• Mr. Rajesh said the **extreme poverty eradication programme** began in **2021** as one of the first **Cabinet decisions** of the **Left Democratic Front (LDF)** government.

श्री राजेश ने कहा कि **चरम गरीबी उन्मूलन कार्यक्रम** की शुरुआत **2021** में **वाम लोकतांत्रिक मोर्चा (एलडीएफ)** सरकार के पहले **कैबिनेट निर्णयों** में से एक के रूप में हुई थी।

• "According to the **NITI Aayog's study in 2021**, Kerala is the State with the **lowest poverty rate** in the country with a **poverty rate of 0.7%** of the total population. The government took the lead in reaching out to this small population and meeting their needs. **Kerala will become the first State in the country to achieve this landmark**," the Minister said.

मंत्री ने कहा, "**नीति आयोग के 2021 के अध्ययन** के अनुसार, **केरल देश** में **सबसे कम गरीबी दर वाला राज्य** है, जहां **कुल जनसंख्या का केवल 0.7% गरीबी दर** है। सरकार ने इस छोटे वर्ग तक पहुंचने और उनकी

जरूरतें पूरी करने की पहल की। **केरल देश का पहला राज्य बनेगा जो इस उपलब्धि को हासिल करेगा।**"

GS III: Poverty
TPCS
THIRUVANANTHAPURAM

Kerala Chief Minister Pinarayi Vijayan will officially declare the State free from extreme poverty at a function to be held at Central Stadium in the capital on November 1.

Actors Mohanlal, Mammootty and Kamal Haasan will be special guests at the event to which all State Ministers as well as Leader of the Opposition V.D. Satheesan will be invited, Minister for Local Self-Governments M.B. Rajesh said at a press conference in Thiruvananthapuram on Wednesday.

Mr. Rajesh said the extreme poverty eradication programme began in 2021 as one of the first Cabinet decisions of the Left Democratic Front (LDF) government.

"According to the NITI Aayog's study in 2021, Kerala is the State with the lowest poverty rate in the country with a poverty rate of 0.7% of the total population. The government took the lead in reaching out to

this small population and meeting their needs. Kerala will become the first State in the country to achieve this landmark," the Minister said.

Over 64,000 families
After ground-level surveys, 64,006 families across the State were identified as extremely poor, based on factors such as food, health, livelihood, and shelter.

Many marginalised people, whose names were not even on the voters' list and who did not even have a ration card or Aadhaar, were on this list. Micro plans on the immediate and long-term needs were prepared for each of the families. Essential documents were given to 21,263 individuals lacking these. Houses were provided to 3,913 families, land for 1,338 families, house repair works of up to ₹2 lakh each done for 5,651 families, he said.

"It is the result of a collective effort as all local bodies, including those ruled by the Opposition front, also had a role to play in this," Mr. Rajesh said.

Over 64,000 families
64,000 से अधिक परिवार

- After ground-level surveys, **64,006 families** across the State were identified as **extremely poor**, based on factors such as **food, health, livelihood, and shelter**.

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जमीनी सर्वेक्षणों के बाद, राज्य भर में 64,006 परिवारों की पहचान खाद्य, स्वास्थ्य, आजीविका और आश्रय जैसे कारकों के आधार पर अत्यंत गरीब के रूप में की गई।

- Many marginalised people, whose names were not even on the voters' list and who did not even have a ration card or Aadhaar, were on this list.
कई हाशिए पर रहने वाले लोग, जिनके नाम मतदाता सूची में नहीं थे और जिनके पास राशन कार्ड या आधार कार्ड भी नहीं था, इस सूची में शामिल थे।
- Micro plans on the immediate and long-term needs were prepared for each of the families. प्रत्येक परिवार की तात्कालिक और दीर्घकालिक आवश्यकताओं पर सूक्ष्म योजनाएं तैयार की गईं।
- Essential documents were given to 21,263 individuals lacking these. जिनके पास आवश्यक दस्तावेज नहीं थे, ऐसे 21,263 व्यक्तियों को दस्तावेज प्रदान किए गए।
- Houses were provided to 3,913 families, land for 1,338 families, house repair works of up to ₹2 lakh each done for 5,651 families, he said.
उन्होंने कहा, 3,913 परिवारों को मकान, 1,338 परिवारों को भूमि दी गई और 5,651 परिवारों के लिए ₹2 लाख तक के मकान मरम्मत कार्य किए गए।
- "It is the result of a collective effort as all local bodies, including those ruled by the Opposition front, also had a role to play in this," Mr. Rajesh said.
श्री राजेश ने कहा, "यह एक सामूहिक प्रयास का परिणाम है क्योंकि इसमें विपक्ष के नेतृत्व वाले स्थानीय निकायों सहित सभी स्थानीय संस्थाओं की भी भूमिका रही।"

When a parasitic wasp saved South's tapioca crops

ISS III, Ecology
Rishita Khanna
BENGALURU

Two years after scientists from the National Bureau of Agricultural Insect Resources (NBAIR), under the Indian Council of Agricultural Research (ICAR), released a tiny parasitic wasp into South India's tapioca fields, the crop that once faced near devastation from an invasive pest is now thriving again. Farmers in Tamil Nadu, Kerala, and Puducherry report that their tapioca harvests have returned to pre-outbreak levels. This marks a rare success in controlling a major agricultural pest without chemicals.

Cassava, better known as tapioca, is grown on



By 2024, ICAR-NBAIR scientists brought the pest under control, eliminating the need for chemical spray. SPECIAL ARRANGEMENT

about 1.73 lakh hectares in India, with Tamil Nadu and Kerala together contributing more than 90% of total production. Before the outbreak, yields averaged 35 tonnes per hectare, far above the global average of 10.76 tonnes, and India exported value-added tapioca products worth nearly ₹200 million annually, ac-

ording to NBAIR officials.

However, the mealybug's arrival in Thrissur, Kerala, in April 2020 changed this landscape. By 2021, nearly 1.43 lakh hectares were infested, and some areas of Tamil Nadu saw yields collapse to 5-12 tonnes per hectare. The pest fed on the plant sap, causing leaf curling, stunt-

ed growth, and poor tuber formation. With no effective local predators, the infestation escalated quickly and posed a serious economic threat to farmers, they said.

Chemical sprays were considered, but repeated pesticide use was costly, harmful to the environment, and unsustainable for small farmers. ICAR-NBAIR scientists instead turned to classical biological control, a strategy that introduces a natural enemy from the pest's native region to restore ecological balance. "Scientists identified a tiny parasitic wasp, *Anagyrus lopezi*, that specifically targets the cassava mealybug. The wasp lays its eggs inside the pest, and

the developing larvae consumes it from within, naturally reducing mealybug numbers without harming other crops," S.N. Sushil, Director, ICAR-NBAIR said.

The institute imported a shipment from the International Institute of Tropical Agriculture, West Africa.

ICAR-NBAIR set up three satellite mass-production centres, distributed over 200,000 parasitoids, and conducted 25 awareness programmes and multiple training sessions. By 2023-24, they had achieved remarkable results. Across the previously infested 1.43 lakh hectares, the mealybug is now under natural control and has eliminated the need for chemical sprays.

When a parasitic wasp saved South's tapioca crops
जब एक परजीवी ततैया ने दक्षिण की कसावा (टैपिओका) फसल को बचाया



- Two years after scientists from the **National Bureau of Agricultural Insect Resources (NBAIR)**, under the **Indian Council of Agricultural Research (ICAR)**, released a tiny **parasitic wasp** into **South India's tapioca fields**, the crop that once faced near devastation from an **invasive pest** is now thriving again.
भारतीय कृषि अनुसंधान परिषद (ICAR) के अंतर्गत राष्ट्रीय कृषि कीट संसाधन ब्यूरो (NBAIR) के वैज्ञानिकों द्वारा दक्षिण भारत के टैपिओका खेतों में एक छोटे परजीवी ततैया को छोड़े जाने के दो साल बाद, वह फसल जो पहले आक्रामक कीट के कारण लगभग नष्ट हो चुकी थी, अब फिर से अच्छी तरह फल-फूल रही है।
- Farmers in **Tamil Nadu, Kerala, and Puducherry** report that their **tapioca harvests** have returned to **pre-outbreak levels**.
तमिलनाडु, केरल और पुडुचेरी के किसानों ने बताया कि उनकी टैपिओका फसलें अब महामारी से पहले के स्तर पर लौट आई हैं।
- This marks a **rare success** in controlling a **major agricultural pest** without **chemicals**.
यह रसायनों के बिना एक मुख्य कृषि कीट को नियंत्रित करने में एक दुर्लभ सफलता को दर्शाता है।
- **Cassava**, better known as **tapioca**, is grown on about **1.73 lakh hectares** in India, with **Tamil Nadu and Kerala** together contributing more than **90%** of total production.
कसावा, जिसे आमतौर पर टैपिओका कहा जाता है, भारत में लगभग **1.73 लाख हेक्टेयर** में उगाया जाता है, जिसमें तमिलनाडु और केरल मिलकर कुल उत्पादन का **90% से अधिक** योगदान देते हैं।
- Before the outbreak, yields averaged **35 tonnes per hectare**, far above the **global average of 10.76 tonnes**, and India exported **value-added tapioca products** worth nearly **₹200 million annually**, according to **NBAIR officials**.
महामारी से पहले, औसत उत्पादन प्रति हेक्टेयर **35 टन** था, जो वैश्विक औसत **10.76 टन** से कहीं अधिक था, और भारत हर साल लगभग **₹200 मिलियन मूल्य के मूल्यवर्धित टैपिओका उत्पादों** का निर्यात करता था, यह जानकारी **NBAIR अधिकारियों** ने दी।
- However, the **mealybug's arrival** in **Thrissur, Kerala**, in **April 2020** changed this landscape.
हालांकि, अप्रैल 2020 में केरल के त्रिशूर में मिलीबग के आगमन ने इस स्थिति को बदल दिया।
- By **2021**, nearly **1.43 lakh hectares** were infested, and some areas of **Tamil Nadu** saw yields collapse to **5–12 tonnes per hectare**.
2021 तक लगभग **1.43 लाख हेक्टेयर** क्षेत्र प्रभावित था, और तमिलनाडु के कुछ इलाकों में उत्पादन प्रति हेक्टेयर **5–12 टन** तक गिर गया।
- The pest fed on the **plant sap**, causing **leaf curling, stunted growth, and poor tuber formation**.
यह कीट पौधों का रस चूसता था, जिससे पत्तियों का मुड़ना, पौधों की रुकावट वाली वृद्धि, और कंदों का खराब विकास हुआ।
- With no effective local predators, the infestation escalated quickly and posed a **serious economic threat** to farmers, they said.
स्थानीय प्रभावी शिकारी की अनुपस्थिति में, यह संक्रमण तेजी से फैल गया और किसानों के लिए एक गंभीर आर्थिक खतरा बन गया, उन्होंने कहा।
- **Chemical sprays** were considered, but repeated **pesticide use** was **costly, harmful to the environment, and unsustainable** for small farmers.
रासायनिक छिड़काव पर विचार किया गया, लेकिन बार-बार कीटनाशकों का उपयोग महंगा, पर्यावरण के लिए हानिकारक, और छोटे किसानों के लिए अस्थिर था।
- **ICAR–NBAIR scientists** instead turned to **classical biological control**, a strategy that introduces a **natural enemy** from the pest's native region to restore **ecological balance**.
इसके बजाय, **ICAR–NBAIR वैज्ञानिकों** ने पारंपरिक जैव नियंत्रण का सहारा लिया, जो कीट के मूल क्षेत्र से उसके प्राकृतिक शत्रु को लाकर पारिस्थितिक संतुलन बहाल करने की रणनीति है।
- “Scientists identified a tiny **parasitic wasp, Anagyrus lopezi**, that specifically targets the **cassava mealybug**. The wasp lays its **eggs inside the pest**, and the developing larvae **consumes it from within**, naturally reducing mealybug numbers without harming other crops,” **S.N. Sushil**, Director, **ICAR–NBAIR** said.
“वैज्ञानिकों ने एक छोटा परजीवी ततैया, अनागायरस लोपेज़ी पहचाना, जो विशेष रूप से कसावा मिलीबग को निशाना बनाता है। यह ततैया कीट के अंदर अपने अंडे देती है, और विकसित होता लार्वा अंदर से कीट को खा जाता है, जिससे अन्य फसलों को नुकसान पहुंचाए बिना मिलीबग की संख्या स्वाभाविक रूप से घट जाती है,” आईसीएआर-एनबीएआईआर के निदेशक एस.एन. सुशील ने कहा।



- The institute imported a shipment from the **International Institute of Tropical Agriculture, West Africa**.
संस्थान ने अंतरराष्ट्रीय उष्णकटिबंधीय कृषि संस्थान, पश्चिम अफ्रीका से एक खेप आयात की।
- **ICAR-NBAIR set up three satellite mass-production centres**, distributed over **200,000 parasitoids**, and conducted **25 awareness programmes** and multiple **training sessions**.
ICAR-NBAIR ने तीन उपग्रह व्यापक उत्पादन केंद्र स्थापित किए, 2,00,000 परजीवी ततैयों का वितरण किया, और 25 जागरूकता कार्यक्रमों व कई प्रशिक्षण सत्रों का आयोजन किया।
- By **2023-24**, they had achieved **remarkable results**. Across the previously infested **1.43 lakh hectares**, the **mealybug** is now under **natural control** and has eliminated the need for **chemical sprays**.
2023-24 तक उन्होंने उल्लेखनीय परिणाम हासिल किए। पहले प्रभावित 1.43 लाख हेक्टेयर क्षेत्र में अब मिलीबग स्वाभाविक नियंत्रण में है और रासायनिक छिड़काव की आवश्यकता समाप्त हो गई है।

NSCN(I-M) leader Thuingaleng Muivah returns home in Manipur after six decades

GS III: North East
R: insurgency
UKHRUL/SOMDAL

Six decades after he trekked out to join the Naga freedom movement, National Socialist Council of Nagalim (NSCN) general secretary Thuingaleng Muivah flew in to his native Somdal village in Manipur's Naga-dominated Ukhrul district on Wednesday.

Emotions ran high as his chopper landed on a makeshift helipad a tad before 4 p.m., as almost the entire village of about 4,500 people turned up to greet the frail 91-year-old leader they refer to as Avakharar, which in the Tangkhul tongue means "eldest father".

Somdal was the second stop for the leader of the NSCN, also known as NSCN (Isak-Muivah) or NSCN(I-M), to distinguish the armed organisation from the NSCN (Khaplang) or NSCN(K) and its many



Homecoming: NSCN(I-M) chief Thuingaleng Muivah arrives in his village, Somdal, in Ukhrul, Manipur on Wednesday. RITU RAJ KONWAR

factions.

Thousands lined the streets of Ukhrul, the district headquarters about 25 km from Somdal, as his chopper landed at the town's Bakshi Ground after taking off from near Dimapur in adjoining Nagaland, where the NSCN(I-M) is headquartered. He was assisted by members of his

organisation and his security guards at an event at the Tangkhul Naga Long (apex community-based organisation) field, where a programme was organised in his honour.

"I have no words to explain how we feel and what his homecoming after 61 years means," the 84-year-old Asui Muivah,

the NSCN (I-M) leader's only surviving sibling, said.

Across the Tangkhul domain, Mr. Muivah's homecoming had an added significance. He was the first "Prime Minister" in India to visit Ukhrul, bordering Myanmar. He is the Ato Kilonser (Prime Minister) in the Government of the People's Republic of Nagalim, a position he rose to after joining the armed movement for a sovereign Naga homeland in 1964.

'Free existence'

Mr. Muivah could not address the gathering at both locations as he was not in the best of health. His speech was read out by V.S. Atem, another leader of the NSCN (I-M).

"I thank the Lord God Almighty for preserving me and making it possible for me to return to my birthplace, Somdal, today. But many people whom I knew and who loved me are missing. Generation

comes and goes, but the nation stays. The issue we are fighting for is greater and older than most of us who are gathered here at this Tangkhul Naga Long ground today," the non-agenarian said.

Touching upon the Naga political issue, he said the "historic national decision for a sovereign Nagalim" has been defended and consolidated from the battlefield to the negotiating table. "We have not surrendered the free existence and sovereignty of Nagalim, and we shall defend the sovereign national decisions of Nagalim to the last, come what may," Mr. Muivah stated.

He will stay at a specially designed Gethsemane Prayer Hall, 2.5 km from his ancestral home, with his wife Pakahao Muivah, till October 28. He is scheduled to leave for Senapati, another Naga-majority district in Manipur, on October 29.



NSCN(I-M) leader Thuingaleng Muivah returns home in Manipur after six decades

एनएससीएन(I-M) नेता थुइंगलेंग मुइवाह छह दशकों बाद मणिपुर में घर लौटे

- Six decades after he trekked out to join the **Naga freedom movement**, **National Socialist Council of Nagalim (NSCN) general secretary Thuingaleng Muivah** flew into his native **Somdal village** in Manipur's **Naga-dominated Ukhrul district** on **Wednesday**.

छह दशकों बाद जब उन्होंने नागा स्वतंत्रता आंदोलन में शामिल होने के लिए यात्रा की थी, नेशनल सोशलिस्ट काउंसिल ऑफ नागालिम (NSCN) के महासचिव थुइंगलेंग मुइवाह ने अपने पैतृक सोमदल गाँव में मणिपुर के नागा-प्रधान उखरुल जिले में बुधवार को उड़ान भरी।



- Emotions ran high as his **chopper landed** on a **makeshift helipad** a tad before 4 p.m., as almost the entire village of about **4,500 people** turned up to greet the frail **91-year-old leader** they refer to as **Avakharar**, which in the Tangkhul tongue means **"eldest father"**.

जैसे ही उनका हेलिकॉप्टर लगभग 4 बजे अस्थायी हेलिपैड पर उतरा, भावनाएँ उमड़ पड़ीं, क्योंकि लगभग पूरे 4,500 लोगों के गाँव के लोग उस कमजोर 91 वर्षीय नेता का स्वागत करने के लिए आए, जिन्हें वे अवखारर कहते हैं, जिसका तांगखुल भाषा में अर्थ है "सबसे बड़े पिता"।

- **Somdal** was the second stop for the leader of the NSCN, also known as **NSCN (Isak-Muivah) or NSCN(I-M)**, to distinguish the armed organisation from the **NSCN (Khaplang) or NSCN(K)** and its many factions.

सोमदल एनएससीएन नेता के लिए दूसरी मंज़िल थी, जिसे **NSCN (Isak-Muivah) या NSCN(I-M)** भी कहा जाता है, ताकि इस सशस्त्र संगठन को **NSCN (Khaplang) या NSCN(K)** और उसके कई समूहों से अलग किया जा सके।

- Thousands lined the streets of **Ukhrul**, the district headquarters about **25 km** from Somdal, as his chopper landed at the town's **Bakshi Ground** after taking off from near **Dimapur** in adjoining **Nagaland**, where the **NSCN(I-M)** is headquartered.

हजारों लोग उखरुल की सड़कों पर खड़े थे, जो सोमदल से लगभग 25 किमी दूर जिला मुख्यालय है, जैसे ही उनका हेलिकॉप्टर शहर के बक्शी ग्राउंड पर उतरा, जो निकट डिमापुर, नागालैंड से उड़ान भरने के बाद आया, जहाँ **NSCN(I-M)** का मुख्यालय है।

- He was assisted by members of his organisation and his **security guards** at an event at the **Tangkhul Naga Long (apex community-based organisation) field**, where a programme was organised in his honour.

उन्हें उनके संगठन के सदस्यों और उनके सुरक्षा रक्षक ने तांगखुल नागा लॉन्ग (सर्वोच्च समुदाय आधारित संगठन) मैदान में आयोजित कार्यक्रम में मदद की, जो उनके सम्मान में आयोजित किया गया।

- "I have no words to explain how we feel and what his homecoming after **61 years** means," the **84-year-old Asui Muivah**, the NSCN (I-M) leader's only surviving sibling, said.

"मेरे पास शब्द नहीं हैं यह समझने के लिए कि हम कैसा महसूस कर रहे हैं और 61 वर्षों बाद उनके घर लौटने का क्या मतलब है," 84 वर्षीय असुई मुइवाह, NSCN(I-M) नेता के एकमात्र जीवित भाई ने कहा।

- Across the **Tangkhul domain**, Mr. Muivah's homecoming had an added significance. He was the first **"Prime Minister"** in India to visit Ukhrul, bordering **Myanmar**.

पूरे तांगखुल क्षेत्र में, श्री मुइवाह की घर वापसी का विशेष महत्व था। वह भारत में उखरुल आने वाले पहले "प्रधानमंत्री" थे, जो म्यांमार की सीमा पर है।

- He is the **Ato Kilonser (Prime Minister)** in the **Government of the People's Republic of Nagalim**, a position he rose to after joining the armed movement for a sovereign Naga homeland in **1964**.

वह नागालिम गणराज्य सरकार में अतो किलोंसर (प्रधानमंत्री) हैं, एक पद जिस पर उन्होंने 1964 में एक स्वतंत्र नागा मातृभूमि के लिए सशस्त्र आंदोलन में शामिल होने के बाद पदोन्नति पाई।

'Free existence'

'स्वतंत्र अस्तित्व'

- Mr. Muivah could not address the gathering at both locations as he was not in the best of health. His speech was read out by **V.S. Atem**, another leader of the NSCN (I-M).



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

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

CONTACT: 9971932488



श्री मुइवाह दोनों स्थानों पर सभा को संबोधित नहीं कर पाए क्योंकि उनकी सेहत अच्छी नहीं थी। उनका भाषण **V.S. Atem**, NSCN(I-M) के एक अन्य नेता ने पढ़ा।

- "I thank the Lord God Almighty for preserving me and making it possible for me to return to my birthplace, **Somdal**, today. But many people whom I knew and who loved me are missing. Generation comes and goes, but the nation stays. The issue we are fighting for is greater and older than most of us who are gathered here at this Tangkhul Naga Long ground today," the **nonagenarian** said.

"मैं सर्वशक्तिमान ईश्वर का धन्यवाद करता हूँ कि उन्होंने मुझे सुरक्षित रखा और आज मुझे अपने जन्मस्थान **सोमदल** लौटने का अवसर दिया। लेकिन कई लोग जो मुझे जानते थे और मुझसे प्रेम करते थे, अब नहीं हैं। पीढ़ियाँ आती-जाती रहती हैं, लेकिन राष्ट्र स्थायी रहता है। जिस मुद्दे के लिए हम लड़ रहे हैं, वह यहां इस तांगखुल नागा लॉन्ग मैदान में जमा अधिकांश लोगों से बड़ा और पुराना है," **नब्बे के दशक के नेता** ने कहा।

- Touching upon the **Naga political issue**, he said the "historic national decision for a sovereign Nagalim" has been defended and consolidated from the **battlefield to the negotiating table**.
नागा राजनीतिक मुद्दे को छूते हुए, उन्होंने कहा कि "एक स्वतंत्र नागालिम के लिए ऐतिहासिक राष्ट्रीय निर्णय" को **युद्धक्षेत्र से लेकर बातचीत की मेज तक** सुरक्षित और सुदृढ़ किया गया है।
- "We have not surrendered the **free existence** and sovereignty of Nagalim, and we shall defend the **sovereign national decisions** of Nagalim to the last, come what may," Mr. Muivah stated.

"हमने नागालिम का **स्वतंत्र अस्तित्व** और संप्रभुता नहीं छोड़ी है, और हम नागालिम के **संप्रभु राष्ट्रीय निर्णयों** की अंतिम सांस तक रक्षा करेंगे, चाहे कुछ भी हो," श्री मुइवाह ने कहा।

- He will stay at a specially designed **Gethsemane Prayer Hall**, **2.5 km** from his ancestral home, with his wife **Pakahao Muivah**, till **October 28**.
वह अपने पैतृक घर से **2.5 किमी** दूर विशेष रूप से डिज़ाइन किए गए **गेट्सेमानी प्रेयर हॉल** में अपनी पत्नी **पकाहाओ मुइवाह** के साथ **28 अक्टूबर** तक रहेंगे।
- He is scheduled to leave for **Senapati**, another **Naga-majority district** in Manipur, on **October 29**.
वह **29 अक्टूबर** को मणिपुर के एक अन्य **नागा-प्रधान जिले**, **सेनापति** के लिए प्रस्थान करने वाले हैं।



India aims at self-reliance in solar physics, space weather

Solar activity has a massive impact on the earth, and our critical space infrastructure; understanding the processes that create these enormous eruptions is a necessary aspect of being able to predict space weather; to this end, India has placed its first space observatory at Lagrange point 1

SSIRSAT
Shreejaya Karantha

The sun has a profound influence on life on earth. It's the source of life as well as the motivation for the technological infrastructure that sustains modern society. Solar flares, coronal mass ejections, and energetic storms create space weather that affects satellites and astronauts in space, disrupting communications, navigation, and power grids on earth. Understanding how solar activity originates, evolves, and affects our space environment is thus vital for effective space weather forecasting.

Astronomers in India recently provided an overview of the current state of solar and space physics. They focused on key challenges that are expected to shape the field over the next decade and highlighted how the Indian scientific community will tackle them with help from existing expertise as well as upcoming facilities.

Their ideas were detailed in a paper published in the *Journal of Astrophysics and Astronomy*.

Solar tantrums

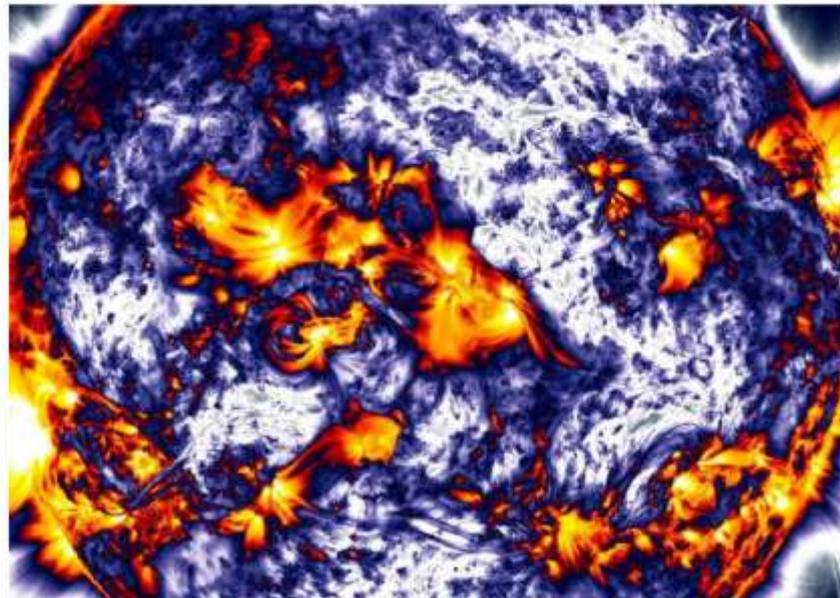
"The key scientific question is understanding solar eruptions, such as solar flares and coronal mass ejections (CMEs), and their potential impact on space assets like satellites orbiting earth," Vaibhav Pant, scientist at the Aryabhata Research Institute of Observational Sciences (ARIES) and second author of the paper, said. "Given our increasing reliance on space technologies, addressing this issue is of utmost urgency."

CMEs are sudden discharges of a large amount of plasma from the outermost part of the sun's atmosphere, known as the corona (Latin for 'crown'). Solar wind, on the other hand, is a continuous outflow of charged particles from the corona. A solar flare is a massive explosion on the sun, triggered by the rapid release of energy from twisted magnetic fields above sunspots, generating a burst of radiation across the electromagnetic spectrum, including radio waves, X-rays, and gamma rays.

Dr. Pant said several significant challenges complicate the study and prediction of CMEs and related solar phenomena. Key issues include the incomplete understanding of the connection between CMEs and the solar wind, the poorly defined magnetic structures of CMEs (which affect their motion), and the complex interactions with ambient solar magnetic fields that alter their orientation and affect the earth and other planets. Predicting solar flares is still challenging due to limited knowledge about how magnetic fields emerge from under the sun's surface.

Sun-watching strategies

In September 2023, the Indian Space Research Organisation (ISRO) launched Aditya-L1, India's first space observatory focused on the sun. Aditya-L1 is stationed 1.5 million km from earth at Lagrange point 1 (L1). Lagrange points are positions in space where gravitational forces between two bodies, like the sun and the earth, balance out the orbital motion of a smaller object, creating areas of relative stability that allow spacecraft to "hover" with minimal fuel use. There are five Lagrange points in the sun-earth system.



An image of the sun as seen through a gradient filter, which highlights the places experiencing the greatest physical changes. The orange arcs here are coronal loops — solar material constrained to travel along the star's complex magnetic field lines. *SSIRSAT*

"Aditya-L1 is positioned at the L1 location, where it takes high-resolution images and spectra of the solar atmosphere. A number of exciting results have already been published from this mission," Dr. Pant said. "We should also consider deploying more (instruments) at other strategic locations, such as L4 and L5" — a suggestion articulated in the overview.

L1 is located on the line connecting the sun and the earth, so any eruption from the sun moving towards the earth will pass through it, and Aditya-L1 can detect it. The L4 point is 60° ahead of the earth's orbit, and L5 is 60° behind. So a spacecraft at L5 can observe solar regions before they rotate towards the earth, allowing them to detect solar activity and CMEs potentially before they occur.

Two spacecraft, one at L1 and another at L5, will function like "two eyes" observing the same solar events, allowing researchers to accurately compute the 3D trajectories of these phenomena, Dr. Pant said. Another spacecraft at the L4 point will create a triangular observation network with the earth at the centre. Using its data, physicists can better track eruptions and produce better estimates of when they arrive at the earth.

On the flip side, L4 and L5 are 30 million km from the earth, complicating data transmission. "Sending data will be slower compared to the L1 position, but if this challenge is mitigated, it would be a great technological demonstration by Indians," Dr. Pant said.

The Indian solar community is also working on enhancing ground-based facilities to observe the Sun.

"The Indian Institute of Astrophysics has proposed a two-metre-class ground-based telescope that will be instrumental in studying the sun's lower

India recently opened its space sector up to private companies. Aside from building satellites and launching rockets, their involvement also portends private-sector innovation in modelling solar storms and predicting space weather

atmosphere with high resolution," Dr. Pant said.

This upcoming project is called the National Large Solar Telescope; its planned size makes it unsuitable for deployment in space.

Onward, sunward

The long-term vision of solar physics in India also includes plans to educate early-career researchers and young students on solar physics and to analyse Aditya-L1 data. To this end, ISRO and ARIES have been conducting workshops across India. Ten have been completed thus far, and an 11th one is scheduled for October at Pondicherry University.

"It was an amazing experience, and the workshop exposed me to a world of cutting-edge research and the top-level researchers leading these studies," said Hardik Medhi, a doctoral student at the National Centre for Radio Astronomy in Pune, who attended the third Aditya-L1 workshop.

Savitha M.S., an integrated MTech PhD student at the Indian Institute of Astrophysics, Bengaluru, attended the third and fifth Aditya-L1 workshops. She said: "This exposure not only broadened my knowledge but also strengthened my passion and determination to pursue research in solar physics."

The paper reported the involvement of

229 early-career Indian researchers in solar physics, both in India and abroad, plus 65 faculty members and scientists working in India. The authors stressed the need to expand the community by hiring new faculty members, developing academic programmes, engaging with the public, and fostering industry partnerships.

The authors also highlighted the need for a national network of advanced supercomputing facilities for computational astrophysics.

As telescopes and space missions improve, analysing and interpreting the data they collect will demand heavy physics-based simulations, rendering supercomputers very useful, if not essential.

Looking ahead, Dr. Pant expressed optimism that "in the next 10 to 15 years, we should be able to develop our own state-of-the-art prediction models for solar flares and the arrival times of coronal mass ejections (CMEs) on earth."

India recently opened its space sector up to private companies.

Aside from building satellites and launching rockets, their involvement also portends private-sector innovation in modelling solar storms and predicting space weather.

"These developments will make India self-reliant in understanding space weather and the solar-terrestrial relationship," Dr. Pant added.

With a community of experts, young researchers, new facilities, and numerous initiatives (many in the works), and now a long-term guiding vision, solar physics and space weather are expected to grow significantly in the coming years.

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India aims at self-reliance in solar physics, space weather सौर भौतिकी और अंतरिक्ष मौसम में आत्मनिर्भरता की दिशा में भारत

- **Solar activity** has a massive impact on the **earth** and our **critical space infrastructure**.

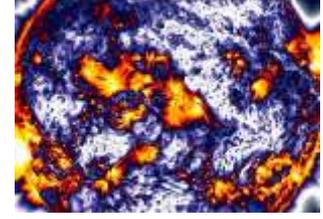
सौर गतिविधि (Solar activity) का पृथ्वी और हमारे महत्वपूर्ण अंतरिक्ष आधारभूत ढांचे पर विशाल प्रभाव पड़ता है।

- Understanding the **processes that create these enormous eruptions** is a necessary aspect of being able to **predict space weather**.

इन महान सौर विस्फोटों को उत्पन्न करने वाली प्रक्रियाओं को समझना अंतरिक्ष मौसम (space weather) की भविष्यवाणी करने के लिए आवश्यक है।

- To this end, **India has placed its first space observatory at Lagrange Point 1**.

इस उद्देश्य के लिए, भारत ने अपना पहला अंतरिक्ष वेधशाला (space observatory) Lagrange Point 1 पर स्थापित किया है।



Solar and Space Physics in India भारत में सौर और अंतरिक्ष भौतिकी

- The **sun** has a profound influence on **life on earth**. It's the **source of life** as well as the **motivation for the technological infrastructure** that sustains modern society.

सूर्य का पृथ्वी पर जीवन पर गहरा प्रभाव है। यह जीवन का स्रोत होने के साथ-साथ आधुनिक समाज को बनाए रखने वाली तकनीकी आधारभूत संरचना के लिए प्रेरणा भी है।

- **Solar flares, coronal mass ejections, and energetic storms** create **space weather** that affects **satellites and astronauts in space**, disrupting **communications, navigation, and power grids** on earth.

सौर स्पंदन (solar flares), कोरोनल मास ईजेक्शन (CMEs) और ऊर्जा वाले तूफान अंतरिक्ष मौसम (space weather) बनाते हैं, जो सैटेलाइट और अंतरिक्ष यात्रियों को प्रभावित करते हैं, और पृथ्वी पर संचार, नेविगेशन और पावर ग्रिड में बाधा डालते हैं।

- Understanding how **solar activity** originates, evolves, and affects our **space environment** is vital for **effective space weather forecasting**.

यह समझना कि सौर गतिविधि कैसे उत्पन्न होती है, विकसित होती है और हमारे अंतरिक्ष वातावरण को कैसे प्रभावित करती है, प्रभावी अंतरिक्ष मौसम पूर्वानुमान के लिए महत्वपूर्ण है।

- **Astronomers in India** recently provided an overview of the **current state of solar and space physics**.

हाल ही में, भारत के खगोल वैज्ञानिकों ने सौर और अंतरिक्ष भौतिकी की वर्तमान स्थिति का अवलोकन प्रस्तुत किया।

- They focused on **key challenges** expected to shape the field over the **next decade** and highlighted how the **Indian scientific community** will tackle them with help from **existing expertise** as well as **upcoming facilities**.

उन्होंने मुख्य चुनौतियों पर ध्यान केंद्रित किया, जो अगले दशक में क्षेत्र को आकार देंगी और यह बताया कि भारतीय वैज्ञानिक समुदाय उन्हें कैसे मौजूदा विशेषज्ञता और आगामी सुविधाओं की मदद से हल करेगा।

- Their ideas were detailed in a paper published in the **Journal of Astrophysics and Astronomy**.

उनके विचार जर्नल ऑफ एस्ट्रोफिज़िक्स एंड एस्ट्रोनॉमी में प्रकाशित एक पेपर में विस्तार से प्रस्तुत किए गए।

Solar tantrums सौर उथल-पुथल

- "The key scientific question is understanding **solar eruptions**, such as **solar flares** and **coronal mass ejections (CMEs)**, and their potential impact on **space assets like satellites orbiting earth**," said **Vaibhav Pant**, scientist at **ARIES** and second author of the paper. "मुख्य वैज्ञानिक प्रश्न है सौर उद्गार (solar eruptions) को समझना, जैसे कि सौर स्पंदन (solar flares)



और कोरोनाल मास ईजेक्शन (CMEs), और इसका संभावित प्रभाव अंतरिक्ष संपत्तियों जैसे पृथ्वी की परिक्रमा करने वाले सैटेलाइट पर," ने कहा वैभव पंत, ARIES के वैज्ञानिक और पेपर के दूसरे लेखक।

- "Given our increasing reliance on **space technologies**, addressing this issue is of **utmost urgency**."
"हमारी बढ़ती अंतरिक्ष तकनीकों पर निर्भरता को देखते हुए, इस मुद्दे को हल करना अत्यंत आवश्यक है।"
- CMEs are sudden discharges of a large amount of **plasma** from the outermost part of the sun's atmosphere, known as the **corona** (Latin for 'crown').
CMEs सूर्य के वातावरण के बाहरी हिस्से कोरोना (लैटिन में 'crown') से बड़ी मात्रा में प्लाज्मा का अचानक उत्सर्जन हैं।
- **Solar wind** is a continuous outflow of **charged particles** from the corona.
सौर वायु (solar wind) कोरोना से आवेशित कणों का निरंतर प्रवाह है।
- A **solar flare** is a massive **explosion on the sun**, triggered by the **rapid release of energy** from **twisted magnetic fields** above sunspots, generating a **burst of radiation** across the **electromagnetic spectrum**, including **radio waves, X-rays, and gamma rays**.
एक सौर स्पंदन (solar flare) सूर्य पर एक विशाल विस्फोट है, जो सनस्पॉट के ऊपर मुड़ी हुई चुंबकीय क्षेत्रों से ऊर्जा के तेजी से उत्सर्जन द्वारा प्रेरित होता है, और यह विद्युतचुंबकीय स्पेक्ट्रम में रेडियो वेव्स, एक्स-रे और गामा किरणें उत्पन्न करता है।
- Dr. Pant said several **significant challenges** complicate the study and prediction of CMEs and related solar phenomena.
डॉ. पंत ने कहा कि कई महत्वपूर्ण चुनौतियाँ CMEs और संबंधित सौर घटनाओं के अध्ययन और पूर्वानुमान को जटिल बनाती हैं।
- Key issues include the **incomplete understanding** of the connection between CMEs and the **solar wind**, the poorly defined **magnetic structures** of CMEs (which affect their motion), and the **complex interactions** with ambient **solar magnetic fields** that alter their orientation and affect the **earth and other planets**.
मुख्य मुद्दों में शामिल हैं: CMEs और सौर वायु के बीच संबंध की अधूरी समझ, CMEs की खराब परिभाषित चुंबकीय संरचनाएँ (जो उनकी गति को प्रभावित करती हैं), और आस-पास के सौर चुंबकीय क्षेत्रों के साथ जटिल परस्पर क्रियाएँ, जो उनकी दिशा बदलती हैं और पृथ्वी और अन्य ग्रहों को प्रभावित करती हैं।
- Predicting **solar flares** is still challenging due to **limited knowledge** about how **magnetic fields emerge** from under the sun's surface.
सौर स्पंदनों की भविष्यवाणी अभी भी चुनौतीपूर्ण है क्योंकि सूर्य की सतह के नीचे से चुंबकीय क्षेत्रों के उद्भव के बारे में हमारी सीमित जानकारी है।

Sun-watching strategies

सूर्य-निरीक्षण रणनीतियाँ

- In **September 2023**, the **Indian Space Research Organisation (ISRO)** launched **Aditya-L1**, India's first **space observatory focused on the sun**.
सितंबर 2023 में, भारतीय अंतरिक्ष अनुसंधान संगठन (ISRO) ने Aditya-L1 लॉन्च किया, जो सूर्य पर केंद्रित भारत का पहला अंतरिक्ष वेधशाला है।
- **Aditya-L1** is stationed **1.5 million km from earth at Lagrange point 1 (L1)**.
Aditya-L1 पृथ्वी से 1.5 मिलियन किमी दूर Lagrange point 1 (L1) पर स्थित है।
- **Lagrange points** are positions in space where **gravitational forces** between two bodies, like the **sun and the earth**, balance out the orbital motion of a **smaller object**, creating areas of **relative stability** that allow spacecraft to "hover" with **minimal fuel use**.
Lagrange points अंतरिक्ष में ऐसी स्थिति हैं जहाँ दो पिंडों जैसे सूर्य और पृथ्वी के बीच की गुरुत्वाकर्षण शक्ति किसी छोटे पिंड की कक्षीय गति को संतुलित करती है, जिससे सापेक्ष स्थिरता का क्षेत्र बनता है और अंतरिक्ष यान कम ईंधन में "हॉवर" कर सकते हैं।
- There are **five Lagrange points** in the **sun-earth system**.
सूर्य-पृथ्वी प्रणाली में पाँच Lagrange points हैं।
- "**Aditya-L1** is positioned at the **L1 location**, where it takes **high-resolution images and spectra** of the **solar atmosphere**. A number of exciting results have already been published from this mission," said **Dr. Pant**.
"Aditya-L1 को L1 स्थान पर रखा गया है, जहाँ यह सौर वातावरण की उच्च-रिज़ॉल्यूशन छवियाँ और स्पेक्ट्रा लेता है। इस मिशन से कई रोमांचक परिणाम पहले ही प्रकाशित हो चुके हैं," ने कहा डॉ. पंत।



- “We should also consider deploying more [instruments] at other **strategic locations**, such as **L4 and L5**,” a suggestion articulated in the **overview**.
“हमें अन्य **रणनीतिक स्थानों** जैसे **L4 और L5** पर और [उपकरण] लगाने पर भी विचार करना चाहिए,” यह सुझाव **समीक्षा** में दिया गया।
- **L1** is located on the line connecting the **sun and the earth**, so any **eruption** from the sun moving towards the earth will **pass through it**, and **Aditya-L1** can detect it.
L1 उस रेखा पर स्थित है जो **सूर्य और पृथ्वी** को जोड़ती है, इसलिए सूर्य से पृथ्वी की ओर जाने वाला कोई भी **विस्फोट** इसके माध्यम से गुजरेगा, और **Aditya-L1** इसे पता लगा सकता है।
- The **L4 point** is **60° ahead** of the earth’s orbit, and **L5** is **60° behind**.
L4 बिंदु पृथ्वी की कक्षा से **60° आगे** है, और **L5 60° पीछे** है।
- A spacecraft at **L5** can observe **solar regions** before they rotate towards the earth, allowing them to detect **solar activity** and **CMEs** potentially **before they occur**.
L5 पर एक अंतरिक्ष यान सूर्य के क्षेत्रों को पृथ्वी की ओर घूमने से पहले देख सकता है, जिससे वे संभावित रूप से **सौर गतिविधि** और **CMEs** का पता **पूर्व में** लगा सकते हैं।
- Two spacecraft, one at **L1** and another at **L5**, will function like “**two eyes**” observing the same **solar events**, allowing researchers to accurately compute the **3D trajectories** of these phenomena.
दो अंतरिक्ष यान, एक **L1** पर और दूसरा **L5** पर, समान **सौर घटनाओं** को देखने के लिए “**दो आँखें**” की तरह कार्य करेंगे, जिससे शोधकर्ता इन घटनाओं की **3D कक्षाओं** की सटीक गणना कर सकते हैं।
- Another spacecraft at the **L4 point** will create a **triangular observation network** with the **earth at the centre**.
L4 बिंदु पर एक अन्य अंतरिक्ष यान **पृथ्वी को केंद्र में रखते हुए त्रिकोणीय अवलोकन नेटवर्क** बनाएगा।
- Using its data, **physicists** can better track **eruptions** and produce better estimates of when they arrive at the **earth**.
इसके डेटा का उपयोग करके **भौतिक विज्ञानी विस्फोटों** को बेहतर ढंग से ट्रैक कर सकते हैं और उनके **पृथ्वी पर आने का समय** अधिक सटीक अनुमानित कर सकते हैं।
- On the flip side, **L4 and L5** are **30 million km** from the earth, complicating **data transmission**.
दूसरी ओर, **L4 और L5** पृथ्वी से **30 मिलियन किमी** दूर हैं, जिससे **डेटा ट्रांसमिशन** जटिल हो जाता है।
- “Sending data will be slower compared to the **L1 position**, but if this challenge is mitigated, it would be a **great technological demonstration** by Indians,” said **Dr. Pant**.
“डेटा भेजना **L1 स्थिति** की तुलना में धीमा होगा, लेकिन यदि इस चुनौती को कम किया गया, तो यह भारतीयों द्वारा एक **महान तकनीकी प्रदर्शन** होगा,” ने कहा **डॉ. पंत**।
- The **Indian solar community** is also working on enhancing **ground-based facilities** to observe the sun.
भारतीय सौर समुदाय भी सूर्य का अवलोकन करने के लिए **भू-आधारित सुविधाओं** को बढ़ाने पर काम कर रहा है।
- “The **Indian Institute of Astrophysics** has proposed a **two-metre-class ground-based telescope** that will be instrumental in studying the **sun’s lower atmosphere** with **high resolution**,” said **Dr. Pant**.
“**भारतीय खगोल भौतिकी संस्थान** ने एक **दो मीटर वर्ग का भू-आधारित टेलीस्कोप** प्रस्तावित किया है, जो **सूर्य के निचले वातावरण** का **उच्च रिज़ॉल्यूशन** के साथ अध्ययन करने में महत्वपूर्ण होगा,” ने कहा **डॉ. पंत**।
- This upcoming project is called the **National Large Solar Telescope**. Its **planned size** makes it unsuitable for deployment in space.
इस आगामी परियोजना को **राष्ट्रीय बड़े सौर टेलीस्कोप** कहा जाता है। इसका **योजना अनुसार आकार** इसे अंतरिक्ष में तैनात करने के लिए अनुपयुक्त बनाता है।

Onward, sunward आगे, सूर्य की ओर

- The long-term vision of **solar physics in India** includes plans to **educate early-career researchers** and **young students** on **solar physics** and to **analyse Aditya-L1 data**.
भारत में **सौर भौतिकी** का दीर्घकालिक दृष्टिकोण में **प्रारंभिक करियर के शोधकर्ताओं** और **युवा छात्रों** को **सौर भौतिकी** पर शिक्षित करना और **Aditya-L1 डेटा का विश्लेषण** करना शामिल है।



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

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

CONTACT: 9971932488



- **ISRO and ARIES** have been conducting **workshops across India**. Ten have been completed thus far, and an **11th** one is scheduled for **October at Pondicherry University**. **ISRO और ARIES** पूरे भारत में **वर्कशॉप्स** आयोजित कर रहे हैं। अब तक दस पूर्ण हो चुके हैं, और **ग्यारहवीं** अक्टूबर में **पुडुचेरी विश्वविद्यालय** में निर्धारित है।
- Students attending the workshops reported **exposure to cutting-edge research** and **top-level researchers**, broadening knowledge and strengthening **passion and determination** for solar physics research.
वर्कशॉप्स में शामिल छात्रों ने **अत्याधुनिक शोध** और **शीर्ष स्तर के शोधकर्ताओं** के संपर्क की रिपोर्ट दी, जिससे उनके ज्ञान का विस्तार हुआ और **सौर भौतिकी अनुसंधान के लिए जुनून और संकल्प** मजबूत हुए।
- The paper reported involvement of **229 early-career Indian researchers**, plus **65 faculty members and scientists** working in India.
पेपर में बताया गया कि **229 प्रारंभिक करियर के भारतीय शोधकर्ता** और भारत में काम कर रहे **65 फैकल्टी मेंबर और वैज्ञानिक** शामिल हैं।
- Authors stressed the need to **expand the community** by hiring **new faculty members**, developing **academic programmes**, engaging with the **public**, and fostering **industry partnerships**.
लेखकों ने समुदाय को **विस्तारित करने** की आवश्यकता पर जोर दिया, इसके लिए **नई फैकल्टी भर्ती, शैक्षणिक कार्यक्रमों का विकास, सार्वजनिक सहभागिता, और उद्योग साझेदारी** को बढ़ावा देना आवश्यक है।
- They also highlighted the need for a **national network of advanced supercomputing facilities** for **computational astrophysics**.
उन्होंने **सांख्यिकीय खगोल भौतिकी** के लिए **उन्नत सुपरकंप्यूटिंग सुविधाओं के राष्ट्रीय नेटवर्क** की आवश्यकता पर भी जोर दिया।
- Analyzing and interpreting data from **telescopes and space missions** will demand **heavy physics-based simulations**, making **supercomputers essential**.
टेलीस्कोप और अंतरिक्ष मिशनों से डेटा का विश्लेषण और व्याख्या करने के लिए ****भारी भौतिकी-आधारित सिमुलेशन**** की आवश्यकता होगी, जिससे **सुपरकंप्यूटर अत्यावश्यक** बन जाएंगे।
- Looking ahead, **Dr. Pant** expressed optimism that in the **next 10 to 15 years**, India should develop **state-of-the-art prediction models** for **solar flares** and **arrival times of CMEs** on earth.
आगे देखते हुए, **डॉ. पंत** ने आशावाद व्यक्त किया कि **अगले 10 से 15 वर्षों** में, भारत **सौर स्पंदन (solar flares)** और **CMEs के पृथ्वी पर आने के समय** के लिए **उन्नत भविष्यवाणी मॉडल** विकसित कर सकेगा।
- India recently opened its **space sector** to **private companies**, which will enable **private-sector innovation** in **modelling solar storms** and **predicting space weather**.
भारत ने हाल ही में अपना **अंतरिक्ष क्षेत्र निजी कंपनियों** के लिए खोला, जिससे **सौर तूफानों के मॉडलिंग और अंतरिक्ष मौसम की भविष्यवाणी** में निजी क्षेत्र की नवाचार सक्षम होगी।
- These developments will make India **self-reliant** in understanding **space weather** and the **solar-terrestrial relationship**, according to **Dr. Pant**.
इन विकासों से भारत **अंतरिक्ष मौसम और सौर-पृथ्वी संबंध** को समझने में **स्वावलंबी** बन जाएगा, **डॉ. पंत** के अनुसार।
- With a **community of experts, young researchers, new facilities**, and numerous initiatives, solar physics and space weather are expected to **grow significantly** in the coming years.
विशेषज्ञों, युवा शोधकर्ताओं, नई सुविधाओं और कई पहलों के साथ, **सौर भौतिकी और अंतरिक्ष मौसम आने वाले वर्षों में महत्वपूर्ण रूप से विकसित** होने की संभावना है।



Scientists use 'atomic stencils' to make designer nanoparticles

GS III: S&T
The Hindu Bureau

Inspired by an artist's stencil, a team of scientists has developed a groundbreaking method to 'paint' microscopic gold particles with polymer patches, giving them new and exciting functions. The technique, detailed in a paper published in *Nature*, could allow scientists to create intricate patterns on the surface of nanoparticles with atomic precision. Imagine trying to build a complex machine using LEGO bricks that are all the same. It would be very difficult. Scientists face a similar challenge in nanotechnology.

Nanoparticles, which are particles thousands of times smaller than the width of a human hair, are the building blocks for revolutionary technologies in medicine, electronics, and energy. However, to create truly complex and functional materials, scientists need nanoparticles with different surface domains, or patches, that can guide how they connect together and organise in particular patterns. Creating these patchy nanoparticles with precision and in large quantities has been a major hurdle.

The breakthrough came from an unexpected place: an art class. Researchers from the U.S. and South Korea realised they could adapt the simple concept of stenciling to the nanoscale. Their process, called "atomic stencilling," works in two main steps. In the first step, iodide atoms are used as a microscopic stencil. These atoms stick selectively to certain flat faces of the small, gem-like gold nanoparticles,

To create complex materials, nanoparticles with different surface domains are required that can guide how they connect and organise in patterns

creating a mask that covers specific areas. Next, they introduce long-chain molecules called polymers. These polymers act like paint, but they can only attach to the unmasked regions of the gold nanoparticle.

By carefully controlling the amount of the iodide 'mask', the scientists could precisely control the size, shape, and location of the polymer "paint" patches. This simple but elegant method allowed them to create a large variety of custom-made nanoparticles.

Using the same stencilling technique, the team successfully created more than 20 types of patchy nanoparticles with unique patterns, such as patches on their corners, faces, and even forming web-like designs.

Perhaps most remarkably, the patches were so uniform that the nanoparticles could spontaneously organise themselves into large, highly ordered 3D crystals known as superlattices. This process, called self-assembly, is a holy grail in nanomaterials science. For years, the creation of such complex, non-closely packed structures from patchy nanoparticles was largely theoretical. The new study has reportedly brought this theory to life, showing that by designing the patches correctly, scientists can direct the particles to build themselves into specific large-scale architectures.

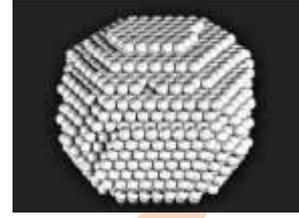
This new level of control over nanoparticle design is a crucial step toward creating metamaterials, which are engineered materials with unique properties not found in nature, such as the ability to manipulate light and sound in new ways. The applications are vast, potentially leading to advances in targeted drug delivery, ultra-efficient catalysts, next-generation electronics, and new classes of smart materials.

The team's technique "can extend to other nanoparticle systems, in which the tunability of core nanoparticle composition, shape, size as well as patch polymer chemistry is limitless," the paper read.



Scientists use 'atomic stencils' to make designer nanoparticles वैज्ञानिक डिज़ाइनर नैनोपार्टिकल्स बनाने के लिए 'एटॉमिक स्टेंसिल' का उपयोग करते हैं

Atomic Stencilling of Nanoparticles नैनोकणों का एटॉमिक स्टेंसिलिंग



- Inspired by an **artist's stencil**, a team of scientists has developed a **groundbreaking method** to 'paint' **microscopic gold particles** with **polymer patches**, giving them **new and exciting functions**.
एक कलाकार के स्टेंसिल से प्रेरित होकर, वैज्ञानिकों की एक टीम ने सूक्ष्म सोने के कणों को पॉलीमर पैच से 'पेंट' करने की पृथक और अभिनव विधि विकसित की, जिससे उन्हें नई और रोचक क्षमताएँ मिलीं।
- The technique, detailed in a paper published in **Nature**, could allow scientists to create **intricate patterns** on the **surface of nanoparticles** with **atomic precision**.
यह तकनीक, जो **Nature** में प्रकाशित एक पेपर में विस्तार से बताई गई, वैज्ञानिकों को नैनोकणों की सतह पर परमाणु स्तर की जटिल आकृतियाँ बनाने की अनुमति दे सकती है।
- Imagine trying to build a **complex machine** using **LEGO bricks** that are all the same; scientists face a similar challenge in **nanotechnology**.
कल्पना कीजिए कि सभी समान **LEGO ईंटों** से एक जटिल मशीन बनानी हो; वैज्ञानिक नैनोप्रौद्योगिकी में इसी तरह की चुनौती का सामना करते हैं।
- Nanoparticles**, particles thousands of times smaller than the width of a **human hair**, are the building blocks for **revolutionary technologies** in **medicine, electronics, and energy**.
नैनोकण, जो मानव बाल की चौड़ाई से हजारों गुना छोटे होते हैं, दवा, इलेक्ट्रॉनिक्स और ऊर्जा में क्रांतिकारी तकनीकों के निर्माण खंड हैं।
- To create truly complex and **functional materials**, scientists need **nanoparticles with different surface domains**, or **patches**, that guide how they **connect and organise** in particular patterns.
वास्तव में जटिल और कार्यात्मक सामग्री बनाने के लिए, वैज्ञानिकों को विभिन्न सतही क्षेत्रों वाले नैनोकणों या पैचों की आवश्यकता होती है, जो यह निर्धारित करते हैं कि वे कैसे जुड़ते और व्यवस्थित होते हैं।
- Creating these **patchy nanoparticles** with **precision and in large quantities** has been a **major hurdle**.
इन पैची नैनोकणों को सटीकता और बड़ी मात्रा में बनाना एक मुख्य चुनौती रहा है।
- The breakthrough came from an **unexpected place**: an **art class**.
यह सफलता एक अप्रत्याशित जगह से आई: एक कला वर्ग।
- Researchers from the **U.S. and South Korea** realised they could adapt the simple concept of **stenciling** to the **nanoscale**.
अमेरिका और दक्षिण कोरिया के शोधकर्ताओं ने महसूस किया कि वे स्टेंसिलिंग की सरल अवधारणा को नैनोस्केल पर अनुकूलित कर सकते हैं।
- Their process, called "**atomic stencilling**", works in **two main steps**:
उनकी प्रक्रिया, जिसे "एटॉमिक स्टेंसिलिंग" कहा जाता है, दो मुख्य चरणों में काम करती है:
 - In the first step, **iodide atoms** are used as a **microscopic stencil**, sticking selectively to **flat faces of gold nanoparticles**, creating a **mask** that covers **specific areas**.
पहले चरण में, आयोडाइड एटम को एक सूक्ष्म स्टेंसिल के रूप में उपयोग किया जाता है, जो सोने के नैनोकणों के समतल सतहों से चयनात्मक रूप से चिपकते हैं, जिससे एक मास्क बनता है जो विशिष्ट क्षेत्रों को ढकता है।
 - In the next step, **long-chain molecules called polymers** act like **paint**, attaching only to **unmasked regions** of the **gold nanoparticle**.
अगले चरण में, लंबी श्रृंखला वाले अणु जिन्हें पॉलीमर कहते हैं पेंट की तरह कार्य करते हैं, और केवल अनमास्क किए गए क्षेत्रों से सोने के नैनोकणों में चिपकते हैं।
- By controlling the amount of **iodide mask**, scientists can precisely control the **size, shape, and location** of the **polymer paint patches**.
आयोडाइड मास्क की मात्रा को नियंत्रित करके, वैज्ञानिक पॉलीमर पेंट पैच का आकार, आकार और स्थान सटीक रूप से नियंत्रित कर सकते हैं।



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- This method allowed creation of a **large variety of custom-made nanoparticles**. इस विधि ने **विभिन्न प्रकार के कस्टम-निर्मित नैनोकणों** के निर्माण की अनुमति दी।
- Using the same **stenciling technique**, the team created **more than 20 types of patchy nanoparticles with unique patterns**, including **corners, faces, and web-like designs**. समान **स्टेंसिलिंग तकनीक** का उपयोग करते हुए, टीम ने **20 से अधिक प्रकार के पैची नैनोकण** बनाए, जिनमें **कोनों, सतहों और जाले जैसी डिज़ाइन** शामिल हैं।
- The patches were so **uniform** that nanoparticles could **self-organise** into **large, highly ordered 3D crystals**, known as **superlattices**. पैच इतने **समान** थे कि नैनोकण **स्वयं-संगठित** होकर **बड़े, अत्यधिक व्यवस्थित 3D क्रिस्टल** बना सकते थे, जिन्हें **सुपरलाटिसेस** कहा जाता है।
- This **self-assembly process** is considered a **holy grail in nanomaterials science**. यह **स्वयं-संगठन प्रक्रिया** **नैनोमटेरियल्स विज्ञान** में एक **पवित्र लक्ष्य** मानी जाती है।
- The new study shows that by **designing patches correctly**, scientists can direct particles to **build themselves into specific large-scale architectures**. नए अध्ययन से पता चलता है कि **पैच को सही ढंग से डिज़ाइन करके**, वैज्ञानिक कणों को **विशिष्ट बड़े पैमाने की संरचनाएँ** बनाने के लिए निर्देशित कर सकते हैं।
- This level of **control over nanoparticle design** is crucial for creating **metamaterials**, which have **unique properties** not found in nature, such as manipulating **light and sound** in new ways. **नैनोकण डिज़ाइन पर यह नियंत्रण** **मेटामटेरियल्स** बनाने के लिए महत्वपूर्ण है, जिनमें **विशिष्ट गुण** होते हैं जो प्रकृति में नहीं मिलते, जैसे **प्रकाश और ध्वनि** को नए तरीके से नियंत्रित करना।
- Applications include **targeted drug delivery, ultra-efficient catalysts, next-generation electronics, and new classes of smart materials**. इसके अनुप्रयोगों में **लक्षित दवा वितरण, अत्यंत कुशल उत्प्रेरक, अगली पीढ़ी के इलेक्ट्रॉनिक्स, और नई श्रेणियों के स्मार्ट मटेरियल्स** शामिल हैं।
- The technique “can extend to other nanoparticle systems, in which the tunability of **core nanoparticle composition, shape, size, as well as patch polymer chemistry**, is limitless.” इस तकनीक को अन्य नैनोकण प्रणालियों में भी लागू किया जा सकता है, जहाँ **मुख्य नैनोकण की संरचना, आकार, आकार और पैच पॉलीमर रसायन विज्ञान** की अनंत संभावनाएँ हों।

a dynamic system, like the solar system, becomes chaotic and its future state becomes impossible to predict with certainty. According to the concept, planetary orbits that may seem stable actually have a finite limit of predictability over millions of years. Fill in the blanks.

Answers to October 16 quiz:

1. Complement of thixotropy seen in gypsum paste – Ans: **Rheopexy**
2. Phenomenon where blue light bends less – Ans: **Anomalous dispersion**
3. Quantum phenomenon where particles bore through barriers – Ans: **Tunnelling**
4. Quantum state of matter with zero electric resistance – Ans: **Superconductivity**
5. State where system is hotter than infinite temperature – Ans: **Negative temperature**

Visual: **Diffusion**

First contact: K.N. Viswanathan | Tamal Biswas | Anmol Agrawal | Dinesh Kumar

QUIZ

Rheopexy: Complement of Thixotropy in Gypsum Paste

Introduction

- **Rheopexy** is a **time-dependent rheological phenomenon** where a fluid becomes **more viscous over time** when subjected to **constant shear stress**.
 - It is often described as the **complement of thixotropy**, which involves a **decrease in viscosity over time** under **shear stress**.
 - This property is particularly observed in **gypsum paste, certain paints, printing inks, and drilling fluids**.

Understanding Thixotropy vs Rheopexy

- **Thixotropy**:
 - Viscosity **decreases over time** under constant shear.
 - Example: **Ketchup**, which becomes easier to pour after shaking.
- **Rheopexy**:

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- Viscosity **increases over time** under constant shear.
- Example: **Gypsum paste**, where continuous stirring or shearing causes the material to **harden gradually**.

Mechanism in Gypsum Paste

- Gypsum paste consists of **calcium sulfate hemihydrate** mixed with water.
- Under continuous shear:
 - Particles **orient and form a stronger internal network**.
 - This **increases resistance to flow**, causing the paste to **thicken over time**.
- Rheopexy in gypsum is important in **construction and molding applications**, ensuring better stability and controlled setting.

Practical Applications

- **Construction Industry:**
 - Provides **controlled hardening** of plaster and stucco.
 - Helps in **molded shapes** retaining structure before final setting.
- **Industrial Fluids:**
 - Observed in **printing inks and paints**, where gradual thickening under shear is advantageous.

Comparison Table

Property	Thixotropy	Rheopexy
Viscosity	Decreases with time under shear	Increases with time under shear
Example	Ketchup, certain gels	Gypsum paste, printer inks
Behavior	Softening over time	Thickening over time

Anomalous Dispersion: Phenomenon Where Blue Light Bends Less

Introduction

- **Anomalous dispersion** is a phenomenon in **optics** where the **normal relationship between refractive index and wavelength is reversed**.
- In **normal dispersion**, shorter wavelengths (like blue light) **refract more than longer wavelengths** (like red light).
- In **anomalous dispersion**, **blue light bends less** than red light over a narrow frequency range, which is opposite to normal behaviour.
- This occurs typically near the **resonance frequencies of materials**, where absorption is significant.

Key Concepts

- **Refractive Index (n):**
 - A measure of how much a light wave **slows down and bends** in a medium.
 - Normally, **n decreases with increasing wavelength**, causing blue light to bend more.
- **Normal vs Anomalous Dispersion:**
 - **Normal Dispersion:**



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- Short wavelengths (blue/violet) are **refracted more** than longer wavelengths (red).
- Common in **prisms, water, glass** under visible light.
- **Anomalous Dispersion:**
 - Occurs **near absorption lines** of a medium.
 - Short wavelengths are **refracted less than longer wavelengths**.
 - Results in **reversal of typical dispersion**, sometimes leading to **negative group velocity** in advanced optical materials.

Mechanism

- Light interacts with **bound electrons** in the medium.
- Near **resonant absorption frequencies**, the **electron oscillations** cause unusual phase shifts.
- This **reduces the refractive index** for shorter wavelengths in a narrow frequency band, causing **blue light to bend less**.

Applications

- **Laser Physics and Optics:**
 - Used in designing **optical fibers** and **laser media** where control of **dispersion is critical**.
- **Spectroscopy:**
 - Helps identify **absorption lines** of atoms and molecules.
- **Advanced Photonics:**
 - Enables creation of **slow-light devices** and **dispersion-managed systems** in communication

Quantum Phenomenon: Tunnelling

Introduction

- **Quantum tunnelling** is a fundamental phenomenon in **quantum mechanics** where a particle **passes through a potential energy barrier** that it classically **should not be able to cross**.
- It is **impossible in classical physics**, but allowed in quantum mechanics due to the **wave nature of particles**.
- This phenomenon arises because particles have a **finite probability to exist on the other side of a barrier**, even if their energy is less than the barrier height.

Key Concepts

- **Wave-Particle Duality:**
 - Particles, like electrons, **behave as waves**, described by a **wavefunction**.
 - The wavefunction can **penetrate barriers**, decreasing exponentially but not becoming zero immediately.
- **Potential Barrier:**
 - A region where **potential energy (V)** is **greater than the particle's energy (E)**.
 - Classically, particles **cannot pass**, but in quantum mechanics, **tunnelling occurs**.
- **Tunnelling Probability (Transmission Coefficient):**
 - Given by $T \approx e^{-2\gamma a}$, where:
 - $\gamma = \frac{\sqrt{2m(V-E)}}{\hbar}$
 - a = width of the barrier
 - m = mass of particle
 - V = barrier height
 - E = particle energy
 - Shows **exponential decay**, but non-zero probability to tunnel.

Examples and Applications

- **Nuclear Physics:**
 - **Alpha decay** occurs because alpha particles **tunnel out of the nucleus**.



- **Electronics:**
 - **Tunnel diodes** and **quantum dots** utilize tunnelling to achieve high-speed operation.
- **Scanning Tunnelling Microscopy (STM):**
 - Uses **electron tunnelling** to image surfaces at the **atomic scale**.
- **Fusion Reactions in Stars:**
 - Hydrogen nuclei in stars **tunnel through Coulomb barriers** to fuse, producing energy.

Illustrative Explanation

- Diagram showing a **particle wavefunction incident on a potential barrier**, with a **small portion appearing on the other side**, representing tunnelling.
- Graph showing **probability decay inside the barrier** and **emergence outside**.
- Comparison of **classical forbidden zone vs quantum tunnelling**.

Important Facts

- **First Explained:** By **George Gamow (1928)** for **alpha decay**.
- **Significance:** Quantum tunnelling is essential in **modern electronics, nuclear physics, and astrophysics**.
- **Barrier Penetration:** Occurs even if the **particle's kinetic energy is less than barrier height**.
- **Material Example:** Observed in **semiconductors, superconductors, and atomic-scale devices**.

Quantum State of Matter: Superconductivity

Introduction

- **Superconductivity** is a **quantum phenomenon** in which a material exhibits **zero electrical resistance** below a certain **critical temperature (T_c)**.
- Discovered in **1911** by **Dutch physicist Heike Kamerlingh Onnes** in mercury at **4.2 K**.
- In a superconducting state, **electric current can flow indefinitely** without energy loss.

Key Concepts

- **Critical Temperature (T_c):**
 - The temperature below which a material becomes superconducting.
 - Varies depending on the material (e.g., Mercury $T_c = 4.2$ K, Lead $T_c = 7.2$ K).
- **Meissner Effect:**
 - Superconductors **expel magnetic fields** from their interior when cooled below T_c .
 - This is a defining property distinguishing superconductors from perfect conductors.
- **Types of Superconductors:**
 - **Type I:** Pure metals (e.g., Mercury, Lead) – complete expulsion of magnetic field, lower critical field.
 - **Type II:** Alloys and compounds (e.g., Niobium-Titanium) – partial penetration of magnetic field, higher critical field.
- **BCS Theory (Bardeen, Cooper, Schrieffer, 1957):**
 - Explains superconductivity via formation of **Cooper pairs**, where electrons move **without scattering** due to lattice vibrations (phonons).

Applications of Superconductivity

- **Magnetic Levitation:**
 - Used in **maglev trains** that float above tracks with **no friction**.
- **Medical Imaging:**
 - **MRI machines** use superconducting magnets for high-strength fields.
- **Power Systems:**
 - Superconducting **power cables** reduce energy losses in electricity transmission.



- **Particle Accelerators:**
 - Superconducting magnets guide **high-energy particles** in facilities like **CERN**.
- **Quantum Computing:**
 - Superconducting circuits enable **qubits** for quantum computation.

Illustrative Explanation

- Diagram showing **zero-resistance current in a superconducting loop**.
- Illustration of the **Meissner effect**: magnetic field lines being **repelled from a superconductor**.
- Graph depicting **resistance dropping sharply to zero** at the critical temperature T_c .

Important Facts

- **High-Temperature Superconductors:**
 - Discovered in **1986 (Bednorz and Müller)**; materials like **YBCO** have T_c above **90 K**.
- **Critical Magnetic Field (H_c):**
 - Maximum magnetic field a superconductor can withstand before returning to normal state.
- **Quantum Phenomenon:**
 - Superconductivity arises due to **quantum mechanical effects**, not classical conduction.
- **Energy Efficiency:**
 - Potential to **revolutionize power transmission** and **energy storage** with zero-loss systems.

Quantum Thermodynamics: Negative Temperature

Introduction

- **Negative temperature** is a **counterintuitive concept** in thermodynamics where a system can be considered **hotter than any positive temperature**, including infinity.
- Occurs in **systems with a bounded energy spectrum**, such as **spins in a magnetic field** or certain **laser-pumped atomic systems**.
- First realized experimentally in **nuclear spin systems** in the 1950s.

Key Concepts

- **Definition of Temperature:**
 - Temperature is defined by the relation $1/T = \partial S/\partial E$, where **S** is entropy and **E** is energy.
 - In conventional systems, increasing energy increases entropy \rightarrow positive temperature.
 - In systems with **upper energy bounds**, adding energy **decreases entropy**, leading to **negative temperature**.
- **Characteristics of Negative Temperature:**
 - **Thermodynamically hotter** than any positive temperature.
 - Heat flows **from the negative temperature system to the positive temperature system**.
 - Cannot exist in unbounded systems like an ideal gas.
- **Physical Systems Exhibiting Negative Temperature:**
 - **Nuclear spins in a magnetic field** (classic example).
 - **Ultracold atoms in optical lattices** (recent experimental realization).
 - **Population-inverted systems in lasers**, where more atoms occupy higher energy states.

Illustrative Explanation

- Diagram showing **spin system in a magnetic field** with population inversion leading to negative temperature.
- Graph depicting **entropy vs energy**: slope $\partial S/\partial E$ becomes negative $\rightarrow T < 0$.
- Comparison with a positive **temperature system** showing heat flows from $T < 0 \rightarrow T > 0$.

Applications and Significance



- **Laser Physics:** Population inversion corresponds to negative temperature, essential for laser operation.
- **Quantum Simulations:** Enables studies of exotic thermodynamic phenomena in controlled laboratory setups.
- **Statistical Mechanics:** Helps understand non-equilibrium systems and bounded energy systems.

Important Facts

- Negative temperature is **not colder than zero**; it is paradoxically **hotter than infinity**.
- Experimental realization in **ultracold rubidium atoms** in optical lattices in **2013** demonstrated negative temperatures in kinetic energy distributions.
- Systems must have **finite, bounded energy states** for negative temperatures to occur.

A path for a battered and broken Himachal Pradesh

SDG for Sustainable Development

The Supreme Court of India's observations, recently, on the state of affairs in Himachal Pradesh, and a writ petition thereafter, have resonated with environmentalists in the State.

A notification about an addition of a green belt in the "Development Plan for Shimla Planning Area" was being contested in SLP(C) No.19426/2025 (M/s Pristine Hotels and Resorts Pvt. Ltd. vs State of Himachal Pradesh and Anr.) in the Court when Justices J.B. Pardiwala and R. Mahadevan voiced grave concern over the ecological disaster in the State.

"We want to impress upon the State Government and Union of India respectively that earning revenue is not everything. Revenue cannot be earned at the cost of environment and ecology. If things proceed, the way they are on date, then the day is not far when the entire State of HP (Himachal Pradesh) may vanish in thin air from the map of the Country...."

The judges directed the Court registry to register a writ petition in public interest vide order dated July 28, 2025. The Court said that it had felt compelled to make the observations in the larger interest of the State and its inhabitants regarding severe ecological imbalances and other environmental conditions that have led to natural calamities over a period of years. The Court went on to hold the people of the State also responsible for the disastrous state of affairs.

This action by the Court fills us with hope as it is an intervention that could be the harbinger of a new era of development in the State. There is a need for course correction by both the State and its people.

Policy, but only on paper

It is ironic that there is a robust mandate in both the federal and State regulatory system for sustainable development; for development which is risk-informed, and risk averse. The problem is with the perfunctory, box-ticking manner in which these mandates are executed.

The Court needs to ensure that the State implements the collective mandate for environmental governance in the State, spread across a plethora of eloquent laws, policies, rules, regulations, strategies and vision documents. Honest and sincere actions are needed on the ground.

It would be appropriate if the Court gets in to, for example, the adequacy of the cumulative impact assessments of the basins as they need to be done in the right spirit so that hydropower development in a given basin can be regulated to minimise the overall impact of development on the ecosystems in the basin. For instance, 'does



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river mean only its water' is a question that needs serious consideration. Do run of the river hydropower projects also not fragment a river's ecosystem? Do they not alter nutrient and sediment transportation and the composition of aquatic flora and fauna of the river? Do all of these not have an impact on the socio-economic life of people around the river? Projects of up to 2MW are permitted even in eco-sensitive zones. Do they have no impact?

The building of highways

Justice would be done if the Court fixes accountability in the fiasco related to the National Highway project (Bilaspur-Manali-Leh) for which the detailed project report was purportedly made sitting in a drawing room. Constructing roads in what are geologically fragile and seismically susceptible mountainous areas is tricky business. The Ministry of Road Transport and Highways knew about the dangers of laying mountain roads and had issued a circular on March 23, 2018, which had restricted the width of hill roads to 5.5 metres keeping in mind the ecological issues.

Nothing seems to be done in a scientific manner on any National Highway being constructed in the State be it the alignment of highways, the cutting of the slopes, slope management, and debris deposit. The Environmental Impact Assessment has gaps as it is done in a 'box-ticking approach'; mostly, projects are broken up into smaller parts to escape the EIA altogether. Roads that have strategic importance should come under more stringent standards to make them all-weather, resilient and dependable roads rather than laying them as superhighways which either sink or get washed away every monsoon season.

Deforestation, excavation and tunnelling of the mountains using explosives and then dumping the waste into rivers are a sure recipe for disaster in these fragile mountain ecosystems.

Did the National Highways Authority of India (NHAI) do anything to mitigate landslides as advised collectively by the Central Road Research Institute, the Geological Survey of India and the National Disaster Management Authority when constructing any national highway in the State? Only the NHAI can tell the public if it consulted the 'Landslide Hazard, Vulnerability & Risk Atlas' for the state of Himachal Pradesh'.

It is important to establish that 'Hazard, Vulnerabilities, Risk and Capabilities Assessment' studies (HVRCA), climate vulnerabilities and other such studies in the State have been done with requisite scientific rigour on the basis of credible granular data, both historic and current, which could be of help for short-, medium- and

long-term policy and governance actions.

The world has seen tremendous loss of life and property in the State following natural disasters, especially in 2023 and in 2025. It would be interesting to know if the construction around rivers, streams and nullahs has been regulated in the State. Has the State carried out flood plain zoning of its river systems? Have policymakers forgotten that the State is home to five mighty river systems – the Beas, Ravi, Sutlej, Yamuna and Chenab (Chandira and Bhagra)?

The State had relentless rainfall between August and September 2025, but can all these incidents be labelled as instances of cloud bursts especially when the India Meteorological Department has defined a cloud burst as an extreme weather event involving 100 mm (10 cm) or more of rainfall within one hour over an area of approximately 20 square kilometres to 30 sq-km?

The end result is this

Everything looks impressive when one looks at the interim report filed by the State. All the boxes have been ticked when it comes to formulating laws, policies, vision documents, plans and undertaking studies. The claim is that Himachal Pradesh was the first in the country to have banned the use of plastic, has a policy of buying back non-recyclable single-use plastic (SUP) waste, the first State to have environmental or e-flows in rivers, a hydro power policy, a payment for ecosystem services policy, a sustainable tourism development policy, an integrated master plan for sustainable tourism, and stringent building regulations. What purpose do all of these serve if the results are not visible on the ground?

In 2011, the Aryabhata Geo-Informatics & Space Application Centre (AGISAC) was set up in the State as, among other things, as a repository for all data on the State's environment, its natural and man-made resources, and data related to the impact of climate change to help government departments make evidence-based development decisions. Was this being followed?

Catastrophes that were once considered to be 'once-in-a-century events' are now regular occurrences and exacerbated by a faulty developmental model. In meeting the developmental aspirations of Himachal Pradesh, the only way forward is to pursue development that takes into account the projected impact of climate change and integrates disaster risk reduction in the planning stage.

The mandate of the law must be implemented in letter and spirit, with accountability in the system of governance.

The State needs to follow risk-informed and risk-averse development



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A path for a battered and broken Himachal Pradesh एक पथ घायल और टूटे हुए हिमाचल प्रदेश के लिए

Supreme Court Observations on Himachal Pradesh and Environmental Concerns

हिमाचल प्रदेश और पर्यावरणीय चिंताओं पर सुप्रीम कोर्ट के निरीक्षण

- The **Supreme Court of India** recently made observations on the **state of affairs in Himachal Pradesh**, which resonated with **environmentalists** in the State.
हाल ही में भारत के सुप्रीम कोर्ट ने हिमाचल प्रदेश की स्थिति पर टिप्पणियां कीं, जो राज्य के पर्यावरणविदों के बीच प्रतिध्वनित हुईं।
- A **notification** about adding a **green belt** in the “**Development Plan for Shimla Planning Area**” was contested in **SLP(C) No.19426/2025** (M/s Pristine Hotels and Resorts Pvt. Ltd. vs State of Himachal Pradesh and Anr.) when **Justices J.B. Pardiwala and R. Mahadevan** voiced grave concern over the **ecological disaster** in the State.
“शिमला प्लानिंग एरिया के विकास योजना” में ग्रीन बेल्ट जोड़ने के संबंध में सूचना को **SLP(C) No.19426/2025** (M/s Pristine Hotels and Resorts Pvt. Ltd. बनाम हिमाचल प्रदेश राज्य और अन्य) में चुनौती दी गई, जब न्यायमूर्ति **J.B. पारदिवाला और R. महादेवन** ने राज्य में **पारिस्थितिकीय संकट** पर गंभीर चिंता व्यक्त की।
- The judges said: “**Revenue cannot be earned at the cost of environment and ecology**. If things continue as on date, then the entire State of HP may vanish from the map of the Country.”
न्यायाधीशों ने कहा: “**राजस्व पर्यावरण और पारिस्थितिकी की कीमत पर नहीं कमाया जा सकता**। यदि स्थिति वर्तमान जैसी ही रही, तो पूरे हिमाचल प्रदेश का नक्शे से अस्तित्व खत्म हो सकता है।”
- The Court directed the **registry to register a writ petition in public interest** via order dated **July 28, 2025**.
अदालत ने **28 जुलाई 2025 के आदेश** के माध्यम से सार्वजनिक हित में रिट याचिका दर्ज करने का निर्देश दिया।
- The Court felt compelled to make these observations for the **larger interest of the State and its inhabitants** regarding **severe ecological imbalances and environmental conditions leading to natural calamities over years**.
अदालत ने इन टिप्पणियों को राज्य और उसके निवासियों के **व्यापक हित** के लिए करना आवश्यक समझा, जो **गंभीर पारिस्थितिकीय असंतुलन और वर्षों से प्राकृतिक आपदाओं** की ओर ले गए हैं।
- The Court also held the **people of the State responsible for the disastrous state of affairs**.
अदालत ने राज्य के **लोगों को भी जिम्मेदार ठहराया** इन **विनाशकारी परिस्थितियों** के लिए।
- This action by the Court **offers hope** as it could be the **harbinger of a new era of development** in the State.
अदालत की यह कार्रवाई **आशा प्रदान करती है**, क्योंकि यह राज्य में **विकास के नए युग की शुरुआत** हो सकती है।
- There is a **need for course correction** by both the **State and its people**.
राज्य और उसके लोगों दोनों द्वारा **दिशा सुधार** की आवश्यकता है।

Policy, but Only on Paper नीति, लेकिन केवल कागज पर

- It is **ironic** that there is a **robust mandate** in both the **federal and State regulatory systems** for **sustainable development**, yet execution is **perfunctory**.
यह **विडंबनापूर्ण** है कि **संघीय और राज्य नियामक प्रणालियों** में सतत विकास के लिए मजबूत **अनुदेश** हैं, फिर भी इसका कार्यान्वयन **उपरीकृत और औपचारिक** है।
- The Court needs to ensure the **State implements the collective mandate for environmental governance**, spread across multiple **laws, policies, rules, regulations, strategies, and vision documents**.
अदालत को यह सुनिश्चित करने की आवश्यकता है कि **राज्य पर्यावरणीय शासन के सामूहिक निर्देशों को लागू करे**, जो कई **कानूनों, नीतियों, नियमों, विनियमों, रणनीतियों और दृष्टि दस्तावेजों** में फैला है।



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- **Honest and sincere actions** are needed on the ground.
जमीन पर **ईमानदार और गंभीर कार्रवाई** की आवश्यकता है।
- The **Court could examine the adequacy of cumulative impact assessments of the basins to ensure hydropower development minimizes impact on ecosystems.**
अदालत **बेसिनों के सम्मिलित प्रभाव आकलनों की पर्याप्तता** की जांच कर सकती है ताकि **जलविद्युत विकास पारिस्थितिक तंत्र** पर न्यूनतम प्रभाव डाले।
- **Questions include whether a river means only its water, and if run of the river hydropower projects fragment ecosystems, alter nutrient and sediment transport, and impact aquatic flora and fauna and socio-economic life of nearby people.**
सवाल हैं कि क्या नदी केवल इसका पानी है, और क्या **रन ऑफ द रिवर जलविद्युत परियोजनाएं पारिस्थितिकी तंत्र** को विभाजित करती हैं, **पोषक तत्व और तलछट परिवहन** बदलती हैं, और **जल वनस्पति और जीव-जंतु** तथा आसपास के लोगों के **सामाजिक-आर्थिक जीवन** को प्रभावित करती हैं।
- **Projects up to 2 MW are permitted even in eco-sensitive zones.** Their **impact** is questioned.
2 MW तक की परियोजनाएं पर्यावरण-संवेदनशील क्षेत्रों में भी अनुमति प्राप्त हैं। उनका **प्रभाव प्रश्नवाचक** है।

The Building of Highways हाईवे निर्माण

- Justice would be done if the Court fixes **accountability** in the fiasco related to the **National Highway project (Bilaspur-Manali-Leh)**, for which the detailed project report was purportedly made sitting in a **drawing room.**
न्याय का पालन होगा यदि अदालत **जवाबदेही** तय करे उस **राष्ट्रीय राजमार्ग परियोजना (बिलासपुर-मनाली-लेह)** में हुई असफलता के संबंध में, जिसके लिए विस्तृत परियोजना रिपोर्ट कथित रूप से **ड्राइंग रूम में बैठकर** बनाई गई थी।
- Constructing roads in **geologically fragile and seismically susceptible mountainous areas** is a **tricky business.**
भूवैज्ञानिक रूप से कमजोर और भूकंपीय संवेदनशील पहाड़ी क्षेत्रों में सड़कें बनाना एक **जटिल काम** है।
- The **Ministry of Road Transport and Highways** knew about the dangers of laying mountain roads and issued a **circular on March 23, 2018**, which restricted the **width of hill roads to 5.5 metres**, keeping in mind the **ecological issues.**
सड़क परिवहन और राजमार्ग मंत्रालय को पहाड़ी सड़कें बिछाने के खतरे का पता था और उसने **23 मार्च 2018** को एक **परिपत्र** जारी किया, जिसमें **पहाड़ी सड़कों की चौड़ाई 5.5 मीटर तक** सीमित की गई, पर्यावरणीय मुद्दों को ध्यान में रखते हुए।
- Nothing seems to be done in a **scientific manner** on any **National Highway** being constructed in the State, including **alignment, cutting of slopes, slope management, and debris deposit.**
राज्य में बनाई जा रही किसी भी **राष्ट्रीय राजमार्ग पर वैज्ञानिक तरीके से** कुछ भी नहीं किया गया प्रतीत होता है, जिसमें **सड़क का संरेखण, ढलानों की कटाई, ढलान प्रबंधन और मलबा जमा करना** शामिल है।
- The **Environmental Impact Assessment (EIA)** has gaps as it is done in a **'box-ticking approach'**, mostly by breaking projects into smaller parts to **escape EIA altogether.**
पर्यावरणीय प्रभाव आकलन (EIA) में अंतर हैं क्योंकि इसे **'बॉक्स-टिकिंग दृष्टिकोण'** में किया जाता है, ज्यादातर परियोजनाओं को छोटे हिस्सों में विभाजित करके **EIA से पूरी तरह बचने** के लिए।
- Roads with **strategic importance** should meet **stringent standards** to be **all-weather, resilient, and dependable**, rather than **superhighways** that **sink or wash away every monsoon.**
रणनीतिक महत्व वाली सड़कें को **कड़े मानकों** का पालन करना चाहिए ताकि वे **सभी मौसमों में, टिकाऊ और भरोसेमंद** हों, न कि **सुपरहाईवे** जैसी जो हर मानसून में **डूब जाएं या बह जाएं**।
- **Deforestation, excavation, and tunnelling using explosives** and dumping waste into rivers is a recipe for **disaster** in fragile mountain ecosystems.
वन कटाई, खुदाई, और विस्फोटकों का उपयोग करके सुरंग निर्माण और अपशिष्ट को नदियों में डालना कमजोर पहाड़ी पारिस्थितिकी तंत्र में **आपदा का कारण** है।
- Did the **NHAI** mitigate **landslides** as advised collectively by **Central Road Research Institute, Geological Survey of India, and National Disaster Management Authority?**



क्या NHAİ ने भूस्खलन को कम करने के लिए केंद्रीय सड़क अनुसंधान संस्थान, भारतीय भूवैज्ञानिक सर्वेक्षण, और राष्ट्रीय आपदा प्रबंधन प्राधिकरण की संयुक्त सिफारिशों के अनुसार कदम उठाए?

- Only NHAİ can tell the public if it consulted the 'Landslide Hazard, Vulnerability & Risk Atlas' for Himachal Pradesh.
केवल NHAİ जनता को बता सकता है कि उसने हिमाचल प्रदेश के लिए 'भूस्खलन खतरा, संवेदनशीलता और जोखिम एटलस' से परामर्श किया या नहीं।
- It is important that Hazard, Vulnerabilities, Risk and Capabilities Assessment (HVRCA) studies, climate vulnerabilities, and other such studies in the State are done with scientific rigour and credible data, both historic and current, to aid short-, medium-, and long-term policy and governance.
यह महत्वपूर्ण है कि राज्य में खतरे, संवेदनशीलता, जोखिम और क्षमताओं का आकलन (HVRCA) अध्ययन, जलवायु संवेदनशीलताएं, और अन्य ऐसे अध्ययन वैज्ञानिक कठोरता और विश्वसनीय डेटा के आधार पर किए जाएं, जो छोटे, मध्य और लंबे समय की नीति और शासन में मदद कर सकें।
- The State experienced tremendous loss of life and property following natural disasters, especially in 2023 and 2025.
राज्य ने प्राकृतिक आपदाओं के बाद भारी जीवन और संपत्ति की हानि का सामना किया, खासकर 2023 और 2025 में।
- It is important to know if construction around rivers, streams, and nullahs has been regulated, and whether the State has conducted flood plain zoning of its river systems, home to five mighty rivers — Beas, Ravi, Sutlej, Yamuna, and Chenab (Chandra and Bhaga).
यह जानना महत्वपूर्ण है कि नदियों, नालों और नालियों के आसपास निर्माण को नियंत्रित किया गया है या नहीं, और क्या राज्य ने अपने नदी तंत्र का बाढ़ मैदानी क्षेत्र नियोजन किया है, जिसमें पाँच प्रमुख नदियाँ — ब्यास, रावी, सतलज, यमुना और चिनाब (चंद्र और भागा) शामिल हैं।
- Between August and September 2025, the State had relentless rainfall. Can all these incidents be labelled as cloud bursts, considering IMD defines cloud burst as ≥ 100 mm rainfall in 1 hour over 20-30 sq km?
अगस्त और सितंबर 2025 के बीच, राज्य में लगातार वर्षा हुई। क्या इन सभी घटनाओं को क्लाउड बर्स्ट कहा जा सकता है, जबकि भारतीय मौसम विभाग (IMD) क्लाउड बर्स्ट को 20-30 वर्ग किलोमीटर क्षेत्र में 1 घंटे में ≥ 100 mm वर्षा के रूप में परिभाषित करता है?

The End Result अंतिम परिणाम

- Interim reports filed by the State look impressive on paper with laws, policies, vision documents, plans, and studies ticked off.
राज्य द्वारा दाखिल किए गए अंतरिम रिपोर्टों कागज पर प्रभावशाली लगती हैं, जिसमें कानून, नीतियां, दृष्टि दस्तावेज, योजनाएं और अध्ययन चिह्नित हैं।
- Claims include: plastic ban, buy-back policy for non-recyclable SUP waste, environmental or e-flows in rivers, hydropower policy, payment for ecosystem services policy, sustainable tourism development policy, integrated master plan for sustainable tourism, stringent building regulations.
दावे शामिल हैं: प्लास्टिक प्रतिबंध, अपयोगी SUP अपशिष्ट के लिए वापस खरीद नीति, नदियों में पर्यावरणीय या ई-फ्लो, जलविद्युत नीति, पारिस्थितिकी सेवा के लिए भुगतान नीति, सतत पर्यटन विकास नीति, सतत पर्यटन के लिए एकीकृत मास्टर प्लान, कड़े भवन नियम।
- What purpose do these serve if results are not visible on the ground?
यदि नतीजे जमीन पर दिखाई नहीं देते, तो इनका क्या उद्देश्य है?
- In 2011, the Aryabhata Geo-Informatics & Space Application Centre (AGiSAC) was set up as a repository for environmental, natural, man-made, and climate change data to help evidence-based development decisions. Was this followed?
2011 में, आर्यभट्टा जियो-इंफोर्मेटिक्स और स्पेस एप्लीकेशन सेंटर (AGiSAC) स्थापित किया गया था, जो पर्यावरण, प्राकृतिक, मानव निर्मित और जलवायु परिवर्तन डेटा का संग्रह है ताकि साक्ष्य-आधारित विकास निर्णय लिए जा सकें। क्या इसका पालन किया गया?
- Catastrophes once considered 'once-in-a-century events' are now regular occurrences, exacerbated by a faulty developmental model.



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जो आपदाएँ कभी 'सदी में एक बार की घटनाएँ' मानी जाती थीं, अब वे सामान्य घटनाएँ बन गई हैं, जो त्रुटिपूर्ण विकास मॉडल द्वारा बढ़ाई गई हैं।

- Development in Himachal Pradesh must account for projected climate change impact and integrate disaster risk reduction in the planning stage.

हिमाचल प्रदेश में विकास में भविष्य में जलवायु परिवर्तन के प्रभाव को ध्यान में रखना चाहिए और योजना चरण में आपदा जोखिम न्यूनीकरण को शामिल करना चाहिए।

- The mandate of the law must be implemented with accountability in governance.

कानून का आदेश लागू होना चाहिए और शासन में जवाबदेही होनी चाहिए।

Tapping the shine

India must step in as a supplier of solar power to sustain its industry

ES III. Environment

A reasonable credit for is cultivating a domestic solar power industry. Somewhere in 2017, the per unit cost of solar power fell below that of coal power, spurring new interest among businesses investing in ground-mounted solar projects. In 2024-25, the International Renewable Energy Agency reported that India generated 1,08,494 Gwh (gigawatt-hour) of solar energy, surpassing Japan's 96,459 Gwh, and making it the third largest producer of solar power behind only China and the United States. India's capacity to manufacture solar module panels rose from 2 GW (gigawatt) in 2014 to 100 GW in 2025, according to the Ministry of Renewable Energy. This is significant considering that India's domestically installed solar capacity is about 117 GW as of September. However, the actual manufacturing capacity is an optimistic projection and the effective production capacity currently is about 85 GW.

India has stated that as part of its climate commitments, it will source half of its power requirements in 2030 from non-fossil fuel sources. That is about 500 GW of which 250 GW-280 GW is expected to come from solar power. This means that India needs to add about 30 GW annually until 2030. However, India has effectively been able to add only about 17 GW-23 GW annually in the recent past. While in theory, internal production should be sufficient internally, modules made in India are anywhere from 1.5 to 2 times more expensive than those from China, simply because of its much larger capacity, control of the necessary raw material and far superior production lines. India, in its best performance, managed about 4 GW of export of solar modules to the U.S. in 2024 and that too, due to America's temporary restrictions. Compare that with China's annual export of around 236 GW in 2024. Therefore, the large manufacturing capacity that will come online in India in the next few years will likely struggle without new markets. In this context, India's overtures to be a 'solar supplier' to Africa, leveraging the flagship of the International Solar Alliance, is a good move. While India's PM Kusum scheme (solar power to rural India) and PM Surya Ghar scheme (rooftop solar in urban India) are yet to make substantial gains in terms of domestic adoption, they can serve as models to be pitched in Africa which, due to the lack of sufficient rural power, is able to tap only 4% of its arable land through irrigation, creating an opportunity for solar-powered India pumpsets. Though China still remains the dominant solar supplier in Africa too, India must be able to step in as a credible second player for a shot at the sustainability of its own industry.

Tapping the shine

चमक का लाभ उठाना

- India must step in as a supplier of solar power to sustain its industry and meet rising energy demands. भारत को अपनी उद्योगिक स्थिरता (industry) बनाए रखने और बढ़ती ऊर्जा मांग (rising energy demands) को पूरा करने के लिए सौर ऊर्जा (solar power) का प्रदाता (supplier) बनकर कदम उठाना चाहिए।

India's Domestic Solar Power Industry and Global Position

भारत का घरेलू सौर ऊर्जा उद्योग और वैश्विक स्थिति

- Among the successes that India can take reasonable credit for is cultivating a domestic solar power industry.

उन सफलताओं में से जिनके लिए भारत उचित श्रेय ले सकता है, उनमें घरेलू सौर ऊर्जा उद्योग का विकास शामिल है।

- Around 2017, the per unit cost of solar power fell below that of coal power, spurring new interest among businesses investing in ground-mounted solar projects.

लगभग 2017 में, सौर ऊर्जा की प्रति यूनिट लागत कोयला ऊर्जा से कम हो गई, जिससे ग्राउंड-माउंटेड सौर परियोजनाओं में निवेश करने वाले व्यवसायों में नई रुचि पैदा हुई।

- In 2024-25, the International Renewable Energy Agency reported that India generated 1,08,494 GWh of solar energy, surpassing Japan's 96,459 GWh, making it the third largest producer of solar power behind China and the United States.

2024-25 में, अंतर्राष्ट्रीय नवीकरणीय ऊर्जा एजेंसी ने बताया कि भारत ने 1,08,494 GWh सौर ऊर्जा उत्पन्न की, जो जापान के 96,459 GWh से अधिक है, और इसे सौर ऊर्जा का तीसरा सबसे बड़ा उत्पादक बनाता है, केवल चीन और अमेरिका के पीछे।

- India's capacity to manufacture solar module panels rose from 2 GW in 2014 to 100 GW in 2025, according to the Ministry of Renewable Energy.

भारत की सौर मॉड्यूल पैनल बनाने की क्षमता 2014 में 2 GW से बढ़कर 2025 में 100 GW हो गई, नवीकरणीय ऊर्जा मंत्रालय के अनुसार।

- India's domestically installed solar capacity is about 117 GW as of September 2025, but effective production capacity is about 85 GW.

सितंबर 2025 तक भारत की घरेलू स्थापित सौर क्षमता लगभग 117 GW है, लेकिन प्रभावी उत्पादन क्षमता लगभग 85 GW है।



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- India has stated that as part of its **climate commitments**, it will source **half of its power requirements by 2030 from non-fossil fuel sources**, about **500 GW**, with **250-280 GW** expected from **solar power**.
भारत ने कहा है कि अपनी जलवायु प्रतिबद्धताओं के हिस्से के रूप में, यह **2030 तक अपनी ऊर्जा आवश्यकता का आधा हिस्सा गैर-जीवाश्म ईंधन स्रोतों से प्राप्त करेगा**, लगभग **500 GW**, जिसमें **250-280 GW सौर ऊर्जा** से आने की उम्मीद है।
- India needs to add about **30 GW annually until 2030**, but has effectively added only about **17-23 GW annually** in the recent past.
भारत को **2030 तक हर साल लगभग 30 GW** जोड़ने की आवश्यकता है, लेकिन हाल के वर्षों में प्रभावी रूप से केवल **17-23 GW प्रति वर्ष** जोड़ा गया है।
- Modules made in India are **1.5 to 2 times more expensive** than those from **China** due to **China's larger capacity, control of raw materials, and superior production lines**.
भारत में बने मॉड्यूल **चीन** के मुकाबले **1.5 से 2 गुना अधिक महंगे** हैं क्योंकि चीन की **बड़ी क्षमता, कच्चे माल पर नियंत्रण और श्रेष्ठ उत्पादन लाइनें** हैं।
- India exported about **4 GW of solar modules to the U.S. in 2024**, due to **America's temporary restrictions**, compared to **China's 236 GW annual export**.
भारत ने **2024 में अमेरिका को लगभग 4 GW सौर मॉड्यूल** का निर्यात किया, अमेरिका के **अस्थायी प्रतिबंधों** के कारण, जबकि चीन का **वार्षिक निर्यात लगभग 236 GW** है।
- The large **manufacturing capacity** coming online in India will likely struggle **without new markets**.
भारत में आने वाली बड़ी **उत्पादन क्षमता** शायद **नई बाजारों के बिना** संघर्ष करेगी।
- India's overtures to be a **'solar supplier' to Africa**, leveraging the **International Solar Alliance**, is a **good move**.
भारत की **अंतर्राष्ट्रीय सौर गठबंधन** का लाभ उठाकर **अफ्रीका के लिए 'सौर आपूर्तिकर्ता'** बनने की पहल एक **सही कदम** है।
- India's **PM Kusum scheme** (solar power to rural India) and **PM Surya Ghar scheme** (rooftop solar in urban India) are yet to make **substantial gains**, but **can serve as models for Africa**, which taps only **4% of its arable land through irrigation**.
भारत की **PM कुसुम योजना** (ग्रामीण भारत में सौर ऊर्जा) और **PM सूर्य घर योजना** (शहरी भारत में रूफटॉप सौर) ने अभी तक **महत्वपूर्ण प्रगति नहीं** की है, लेकिन ये **अफ्रीका के लिए मॉडल** बन सकती हैं, जो **सिंचाई के माध्यम से केवल 4% अपनी उपजाऊ भूमि** का उपयोग कर पाता है।
- Though **China** remains the dominant solar supplier in Africa, India must become a **credible second player** to ensure the **sustainability of its own industry**.
हालांकि **चीन** अफ्रीका में प्रमुख सौर आपूर्तिकर्ता बना हुआ है, भारत को अपनी **उद्योग की स्थिरता सुनिश्चित** करने के लिए **विश्वसनीय दूसरा खिलाड़ी** बनना चाहिए।



The tailwinds from lower global oil prices

ISS III: External Sector, Supply Chain

If asked about the most consequential current foreign trend for India, the replies may range from Gaza to Ukraine and even United States President Donald Trump's tariff war. But we are also approaching an even more impactful battle: for the global oil market. It is being waged between the Organization of the Petroleum Exporting Countries (OPEC-Plus) and the remaining oil exporters, with consumers playing an increasingly decisive part. Depending on who prevails, the gains for India, the world's third-largest importer, could vary from tangible to substantive.

Crude is the world's most valued commodity, with over 100 million barrels per day (mbpd) produced, nearly half of which is traded globally. Depending upon the prevailing unit price, the daily global crude trade currently tops \$3 billion. Thus, crude is not only a vital input for transport and petrochemicals; it is also a financial lubricant.

Consumption trends

Over the past two decades, technology and economics have had a profound and largely bearish impact on the oil market. From the supply side, new technological disruptions such as shale, horizontal drilling, and ultra-deep continental shelf drilling have greatly enhanced production.

On the other hand, global demand seems to be approaching a peak. While relatively robust growth in crude consumption continues in the Global South from a low base, the consumption of fossil fuels has been stagnant in the industrialised countries due to factors such as an anaemic post-COVID-19 economic recovery, climatic concerns and the growing popularity of electric vehicles (EVs). Thus, for example, in 2025, the global crude demand is expected to grow by 1.3 mbpd or 1.2%, with only a tenth of that coming from the 38 countries of the Organisation for Economic Co-operation and Development (OECD) with 46% of the world's GDP. Crucially, the consumption in China, the



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But relief may be short-lived for India, given the cyclical nature of the oil market

world's largest importer, has been curbed largely by an economic slowdown and by the growth of EVs, which now account for half of the vehicles sold.

On the other hand, production of crude has surged by 5.6 mbpd last month over last year, with 3.1 mbpd coming from the OPEC- (as it unwound COVID-19-era production cuts) and the rest mainly from higher production from (in order of their growth) the U.S., Canada, Brazil, Guyana and Argentina.

The resulting supply overhang is beginning to be felt. The Brent oil prices, currently at \$61 a barrel, have declined by 16% since the beginning of the year, with nearly half of that fall coming over the last month. The drop would have been even steeper but for the consumers leveraging the low prices to replenish their strategic petroleum reserves, and the producers hoarding over 100 million barrels of unsold crude on tankers on high seas.

Global events as disruptor

The decline is despite geopolitical disruptions such as the China-U.S. tariff war and concerted Ukrainian drone attacks on Russian hydrocarbon infrastructure. The looming supply glut has affected the inner dynamics of the OPEC+ group of producers: while Saudi Arabia, the leading exporter, wants to quickly unwind the remaining production cuts to regain its market share and reverse the revenue shortfall, Russia, under severe crude exports sanctions, favours a more gradual course.

There are several imponderables, however. First, although it is normal for producers and consumers to see the crude market differently, there is an unusually poignant dispute in the analyses this time. OPEC and the International Energy Agency (IEA), in their respective monthly reports in mid-October, reached diametrically opposite conclusions.

While OPEC sees the global supplies in 2026 being some 50,000 bpd short of the demand, the IEA projects an unprecedented overhang of 4

mbpd. The majority of other think-tanks largely agree with the IEA projection and predict an oversupplied market next year, with Brent prices declining to the low fifties per barrel, a further 10% to 20% fall from their current level.

Technical apart, the proverbially slippery oil market can also be affected by several geopolitical developments, including the end of sanctions on Russia, Iran and Venezuela, resumed West Asian tensions and the de-escalation of the Trumpian tariff wars.

Further, the International Monetary Fund's World Economic Outlook (WEO) released on October 16, describes the global economy as "In Flux, Prospects Remain Dim", predicting a marginal slowdown of the global economic growth rates to 3.2% in 2025 and 3.1% in 2026, with risks to the downside. Further, it sees world trade growth come down to 2.9% in 2025-26, significantly slower than the 3.5% in 2024. Most of these factors tilt towards downside risk to the oil prices.

The outlook for India

The simultaneous decline in both oil price and the U.S. dollar it is priced in is likely to have a net positive impact on India. India's oil imports in 2024-25 were \$137 billion, and a dollar's decline in oil prices improves its current account deficit by \$1.6 billion.

It also reduces the subsidy burden and inflation. With the government keeping most of the gains from lower prices, the fiscal balance improves, boosting capital expenditure and giving a tailwind to growth.

The oil glut may also reduce the reliance on discounted Russian crude, thus removing the underlying cause for the tariff frictions with the U.S. On the flip side, the remittances, exports and investments may stagnate as the West Asian economies attenuate.

However, given the highly cyclical nature of the global oil market, any relief may be short-lived. India would be well advised to keep its consumption mitigation strategies on course.

The tailwinds from lower global oil prices नीचे वैश्विक तेल कीमतों से मिलने वाली लाभकारी हवा

Global Oil Market Trends वैश्विक तेल बाजार प्रवृत्तियाँ

- If asked about the most consequential current foreign trend for India, replies may range from **Gaza, Ukraine**, and even **United States President Donald Trump's tariff war**. यदि भारत के लिए सबसे महत्वपूर्ण वर्तमान विदेशी प्रवृत्ति के बारे में पूछा जाए, तो जवाब में गाजा, यूक्रेन, और यहाँ तक कि संयुक्त राज्य अमेरिका के राष्ट्रपति डोनाल्ड ट्रंप का टैरिफ युद्ध शामिल हो सकते हैं।
- We are also approaching an even more impactful battle: for the **global oil market**, waged between **OPEC-Plus** and the remaining oil exporters, with consumers playing an increasingly decisive part. हम एक और अधिक प्रभावशाली युद्ध की ओर भी बढ़ रहे हैं: वैश्विक तेल बाजार के लिए, जो OPEC-Plus और शेष तेल निर्यातकों के बीच चल रहा है, जिसमें उपभोक्ता एक निर्णायक भूमिका निभा रहे हैं।
- Depending on who prevails, the gains for **India**, the world's **third-largest importer**, could vary from **tangible to substantive**. यह इस पर निर्भर करता है कि कौन विजयी होता है, भारत के लिए, जो दुनिया का तीसरा सबसे बड़ा आयातक है, लाभ स्पष्ट से महत्वपूर्ण तक भिन्न हो सकते हैं।



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Crude as a Commodity

कच्चा तेल के रूप में वस्तु

- Crude is the world's most **valued commodity**, with over **100 million barrels per day (mbpd) produced, nearly half traded globally**.
कच्चा तेल दुनिया की सबसे **मूल्यवान वस्तु** है, जिसका उत्पादन **100 मिलियन बैरल प्रतिदिन (mbpd)** से अधिक है, और लगभग **आधा वैश्विक रूप से व्यापारित** होता है।
- Depending on the prevailing **unit price**, daily global crude trade currently tops **\$3 billion**.
वर्तमान **यूनिट मूल्य** के अनुसार, दैनिक वैश्विक कच्चा तेल व्यापार वर्तमान में **\$3 अरब** तक पहुंचता है।
- Crude is not only vital for **transport and petrochemicals**; it is also a **financial lubricant**.
कच्चा तेल केवल **परिवहन और पेट्रोकेमिकल** के लिए ही महत्वपूर्ण नहीं है; यह एक **वित्तीय चिकनाई** भी है।

Consumption Trends

उपभोग प्रवृत्तियाँ

- Over the past two decades, **technology and economics** have had a profound and largely **bearish impact** on the oil market.
पिछले दो दशकों में, **प्रौद्योगिकी और अर्थव्यवस्था** का तेल बाजार पर गहरा और मुख्य रूप से **मंदीपूर्ण प्रभाव** पड़ा है।
- **From the supply side, new technological disruptions such as shale, horizontal drilling, and ultra-deep continental shelf drilling have greatly enhanced production**.
आपूर्ति पक्ष से, नई तकनीकी क्रांतियाँ जैसे **शेल, हॉरिजॉन्टल ड्रिलिंग, और अल्ट्रा-डीप कॉन्टिनेंटल शेल्फ ड्रिलिंग** ने उत्पादन में काफी वृद्धि की है।
- On the other hand, global **demand** seems to be approaching a **peak**.
दूसरी ओर, वैश्विक **मांग** एक **चोटी** की ओर बढ़ती दिख रही है।
- While relatively robust growth continues in the **Global South** from a low base, **fossil fuel consumption** has been stagnant in **industrialised countries** due to **post-COVID economic slowdown, climatic concerns, and EV popularity**.
जबकि **वैश्विक दक्षिण** में कम आधार से अपेक्षाकृत मजबूत वृद्धि जारी है, **औद्योगिक देशों** में **जैव ईंधन की खपत** स्थिर रही है, इसके कारण **पोस्ट-COVID आर्थिक मंदी, जलवायु संबंधी चिंताएं, और इलेक्ट्रिक वाहन (EV) की लोकप्रियता** हैं।
- In **2025**, global crude demand is expected to grow by **1.3 mbpd or 1.2%**, with **only a tenth from the 38 OECD countries accounting for 46% of global GDP**.
2025 में, वैश्विक कच्चे तेल की मांग में **1.3 mbpd या 1.2%** की वृद्धि होने की उम्मीद है, जिसमें केवल **38 OECD देशों का एक दसवां हिस्सा** है, जो **विश्व की GDP का 46%** बनाते हैं।
- **Consumption in China, the world's largest importer**, is curtailed by **economic slowdown and the growth of EVs, now half of vehicles sold**.
चीन, दुनिया का **सबसे बड़ा आयातक**, में खपत **आर्थिक मंदी और EV के विकास** के कारण कम हो गई है, जो अब **बेचे गए वाहनों का आधा** है।
- Crude production surged by **5.6 mbpd last month** over last year, with **3.1 mbpd from OPEC+ and the rest from U.S., Canada, Brazil, Guyana, Argentina**.
कच्चे तेल का उत्पादन पिछले वर्ष की तुलना में **पिछले महीने 5.6 mbpd** बढ़ा, जिसमें से **3.1 mbpd OPEC+ से आया और शेष अमेरिका, कनाडा, ब्राज़ील, गुयाना, अर्जेंटीना** से।
- Resulting **supply overhang** is beginning to be felt. **Brent oil prices** currently at **\$61/barrel**, declined **16% since start of year**, with nearly **half of that fall in the last month**.
इसके परिणामस्वरूप **आपूर्ति अधिशेष** महसूस होने लगा है। **ब्रेंट तेल की कीमतें**, वर्तमान में **\$61/बैरल**, वर्ष की शुरुआत से **16%** गिर गई हैं, जिसमें लगभग **आधा गिरावट पिछले महीने** हुई।
- Drop would have been steeper if not for **consumers replenishing strategic reserves and producers hoarding 100+ million barrels on tankers**.
यदि **उपभोक्ताओं द्वारा रणनीतिक भंडार भरना और निर्माताओं द्वारा 100+ मिलियन बैरल टैंकरों में भंडारण** न किया गया होता, तो गिरावट और अधिक तीव्र होती।

Global Events as Disruptor

वैश्विक घटनाएँ विघटनकारी के रूप में

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- The decline in oil prices is despite **geopolitical disruptions** such as the **China-U.S. tariff war** and **Ukrainian drone attacks on Russian hydrocarbon infrastructure**.
तेल की कीमतों में गिरावट के बावजूद यह **भू-राजनीतिक विघटन** जैसे **चीन-अमेरिका टैरिफ युद्ध** और **यूक्रेन द्वारा रूस के हाइड्रोकार्बन बुनियादी ढांचे पर ड्रोन हमले** के बावजूद हुई है।
- The looming **supply glut** has affected the inner dynamics of the **OPEC+ group** of producers: निकट भविष्य में आने वाला **आपूर्ति अधिशेष OPEC+ समूह** के उत्पादकों की आंतरिक गतिशीलता को प्रभावित कर रहा है:
 - **Saudi Arabia**, the leading exporter, wants to quickly **unwind remaining production cuts** to regain market share and reverse revenue shortfall.
प्रमुख निर्यातक **सऊदी अरब** अपने बाजार हिस्से को वापस पाने और राजस्व कमी को उलटने के लिए जल्दी से **शेष उत्पादन कटौती को समाप्त करना** चाहता है।
 - **Russia**, under severe **crude export sanctions**, favors a **more gradual course**.
रूस, जो गंभीर **कच्चे तेल निर्यात प्रतिबंधों** के अधीन है, एक **धीरे-धीरे बढ़ने वाला रास्ता** पसंद करता है।
- Several **imponderables** remain:
कई **अनिश्चितताएँ** बनी हुई हैं:
 - Although producers and consumers normally see the crude market differently, there is an unusually **poignant dispute** this time.
यद्यपि उत्पादक और उपभोक्ता आम तौर पर कच्चे तेल बाजार को अलग दृष्टिकोण से देखते हैं, इस बार असामान्य रूप से **तीव्र विवाद** है।
 - **OPEC and International Energy Agency (IEA)** in mid-October monthly reports reached **diametrically opposite conclusions**.
OPEC और **अंतर्राष्ट्रीय ऊर्जा एजेंसी (IEA)** ने अक्टूबर के मध्य में मासिक रिपोर्टों में **बिल्कुल विपरीत निष्कर्ष** निकाले।
 - **OPEC** sees global supplies in **2026** being some **50,000 bpd short** of demand, whereas **IEA projects overhang of 4 mbpd**.
OPEC के अनुसार **2026** में वैश्विक आपूर्ति मांग से लगभग **50,000 bpd कम** होगी, जबकि **IEA 4 mbpd के अधिशेष का अनुमान** लगाती है।
 - Most other **think-tanks** largely agree with **IEA**, predicting **oversupplied market** next year, with **Brent prices** declining to **low fifties per barrel**, further **10%-20% fall** from current level.
अधिकांश अन्य **थिंक-टैंक** **IEA** से सहमत हैं और अगले वर्ष **अधिशेष आपूर्ति वाला बाजार** की भविष्यवाणी करते हैं, जिसमें **ब्रेट की कीमतें** प्रति बैरल **नीचे के पचासों तक** गिर सकती हैं, वर्तमान स्तर से **10%-20% और गिरावट**।
- Apart from technicals, oil market can be affected by **geopolitical developments**, including: तकनीकी पहलुओं के अलावा, तेल बाजार कई **भू-राजनीतिक घटनाओं** से प्रभावित हो सकता है, जिसमें शामिल हैं:
 - End of sanctions on **Russia, Iran, and Venezuela**.
रूस, ईरान और वेनेजुएला पर प्रतिबंधों का अंत।
 - Resumed **West Asian tensions** and de-escalation of **Trumpian tariff wars**.
पश्चिम एशियाई तनावों का फिर से शुरू होना और **ट्रंपियन टैरिफ युद्धों** का शिथिल होना।
- **International Monetary Fund (IMF)** World Economic Outlook (WEO) on **October 16** describes the global economy as “**in Flux, Prospects Remain Dim**”, predicting:
अंतर्राष्ट्रीय मुद्रा कोष (IMF) का **16 अक्टूबर** का वर्ल्ड इकोनॉमिक आउटलुक (WEO) वैश्विक अर्थव्यवस्था को “**अस्थिर, संभावनाएँ मंद**” के रूप में वर्णित करता है, और पूर्वानुमान देता है:
 - **Global growth rates** to slow to **3.2% in 2025** and **3.1% in 2026**, with **downside risks**.
वैश्विक वृद्धि दरें 2025 में 3.2% और **2026 में 3.1%** तक धीमी होंगी, जिसमें **नीचे की ओर जोखिम** हैं।
 - **World trade growth** to decline to **2.9% in 2025-26**, slower than **3.5% in 2024**.
वैश्विक व्यापार वृद्धि 2025-26 में 2.9% तक घट जाएगी, जो **2024 के 3.5%** से धीमी है।
- Most factors tilt towards **downside risk to oil prices**.
अधिकांश कारक तेल की कीमतों के लिए **नीचे की ओर जोखिम** की ओर झुकते हैं।



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The Outlook for India भारत के लिए पूर्वानुमान

- Simultaneous decline in **oil price** and **U.S. dollar** likely to have a **net positive impact** on India.
तेल की कीमत और अमेरिकी डॉलर में एकसाथ गिरावट होने से भारत पर सकारात्मक प्रभाव पड़ने की संभावना है।
- India's oil imports in **2024-25** were **\$137 billion**; a **dollar decline in oil prices** improves **current account deficit** by **\$1.6 billion**.
भारत के तेल आयात 2024-25 में \$137 अरब थे; तेल कीमतों में डॉलर की गिरावट वर्तमान खाता घाटा को \$1.6 अरब से सुधारती है।
- Reduces **subsidy burden** and **inflation**; government retains most of gains, improving **fiscal balance**, boosting **capital expenditure**, and aiding **growth**.
सब्सिडी बोझ और मुद्रास्फीति कम होती है; सरकार अधिकांश लाभ रखती है, राजकोषीय संतुलन सुधारता है, पूंजीगत व्यय को बढ़ावा देता है और विकास में मदद करता है।
- **Oil glut** may reduce reliance on **discounted Russian crude**, removing underlying cause for **tariff frictions** with the U.S.
तेल का अधिशेष छूट वाले रूसी कच्चे तेल पर निर्भरता कम कर सकता है, जिससे अमेरिका के साथ टैरिफ मतभेदों का मूल कारण हट जाता है।
- On the flip side, **remittances, exports, and investments** may stagnate as **West Asian economies** attenuate.
दूसरी ओर, प्रेषण, निर्यात और निवेश स्थिर रह सकते हैं क्योंकि पश्चिम एशियाई अर्थव्यवस्थाएं कमजोर होती हैं।
- Given the **highly cyclical nature** of global oil market, any relief may be **short-lived**.
वैश्विक तेल बाजार की अत्यधिक चक्रीय प्रकृति को देखते हुए, कोई भी राहत अल्पकालिक हो सकती है।
- India advised to keep its **consumption mitigation strategies** on course.
भारत को अपनी उपभोग कम करने की रणनीतियाँ जारी रखने की सलाह दी जाती है।

PATRIOTIC IAS



Chennai stood out for its severe pollution surge during Deepavali

Unlike some other cities that have recorded high pollution levels throughout the year, Chennai's PM10 concentrations spiked only around Deepavali

ISS: Environment

DATA POINT

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Many Indian cities, including Chennai, Hyderabad, and Ahmedabad, recorded their highest PM10 levels of the year around Deepavali, but Chennai stood out for two reasons. First, unlike some other cities that experience consistently high pollution levels, Chennai's PM10 concentrations spiked only around Deepavali. Second, the city's peak PM10 level around Deepavali was the second highest in the country.

Chart 1 shows hourly PM10 levels recorded between January 1 and October 22, 2025, across select cities. The chart visualises only those hours in which hourly PM10 concentrations crossed 100 µg/m³ mark. Both the darker red shades and larger circles represent higher PM10 levels. Chennai and Ahmedabad recorded only a few days of high pollution before Deepavali.

Chart 2 shows hourly levels of NH3, NO, NO2, SO2, and PM10 and PM2.5 recorded in Velachery, Chennai. All these pollutants showed sharp spikes during Deepavali hours. NO, (NO + NO2) and SO2 levels reached their annual peaks, while both PM10 and PM2.5 also recorded their highest levels of the year. In the graph, red dots indicate Deepavali days in 2025.

Such sharp spikes in air pollutants were seen this Deepavali mainly in Chennai and Hyderabad. However, due to persistent rain, pollution in Chennai dropped sharply soon after peaking.

A toxic haze

The data for the charts were sourced from the 'Central Control Room for Air Quality Management' dashboard maintained by the Central Pollution Control Board. Only one measuring station in a prime residential area in each city was considered for the analysis. Year-round data availability was also a major criterion in choosing a station. The stations are: Delhi - ITO, Ahmedabad - Gyaspur, Hyderabad - New Malakpet, Mumbai - Colaba, Noida - Sector 125, Bengaluru - Jayanagar 5th block, Chennai - Velachery, Amaravati - Secretariat, Trivandrum - Plammoodu

Janavi Visagan is interning with the Hindu Data Team



PHOTO: B. JOTHE KAMALINGAM

Chart 1: Hourly PM10 levels recorded between January 1 and October 22, 2025, across select cities. The chart visualises only those hours in which hourly PM10 concentrations crossed 100 µg/m³ mark. Both the darker red shades and larger circles represent higher PM10 levels. Chennai and Hyderabad recorded only a few days of high pollution before Deepavali.

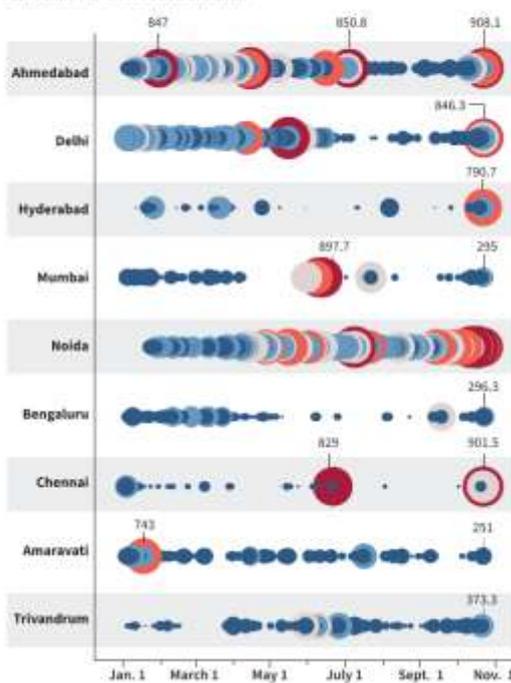
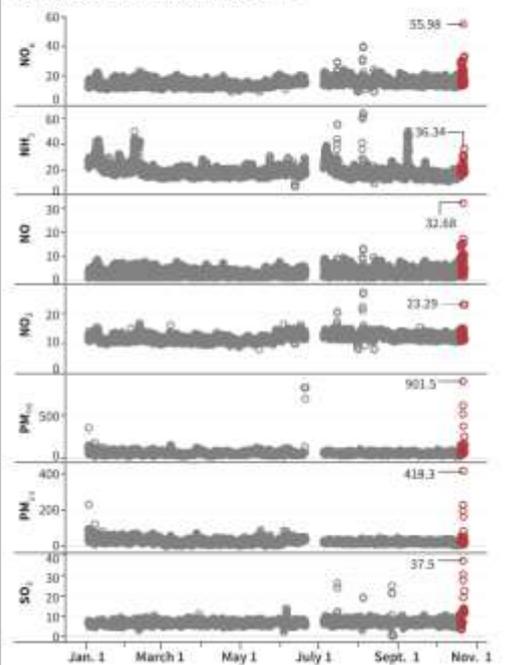


Chart 2: Hourly levels of atmospheric ammonia (NH3), nitrous oxide (NO), nitrogen dioxide (NO2), sulphur dioxide (SO2), and particulate matter (PM10 and PM2.5) recorded in Velachery station, Chennai. NO2 exposure affects lung function. According to the WHO, hospital admissions for cardiac disease and mortality increase on days with higher SO2 levels. (NO = NO + NO2). In the graph, red dots indicate Deepavali days in 2025.



Chennai stood out for its severe pollution surge during Deepavali दीपावली के दौरान चेन्नई में प्रदूषण में तीव्र वृद्धि

- Unlike some other cities that have recorded high pollution levels throughout the year, Chennai's PM10 concentrations spiked only around Deepavali. कुछ अन्य शहरों के विपरीत, जहाँ पूरे वर्ष उच्च प्रदूषण स्तर दर्ज किए गए हैं, चेन्नई में PM10 सांद्रता (PM10 concentrations) केवल दीपावली के आसपास ही बढ़ी।

Air Pollution Spike During Deepavali 2025 दीपावली 2025 के दौरान वायु प्रदूषण में उछाल

- Many Indian cities, including Chennai, Hyderabad, and Ahmedabad, recorded their highest PM10 levels of the year around Deepavali, but Chennai stood out for two



reasons.

कई भारतीय शहरों, जिनमें चेन्नई, हैदराबाद और अहमदाबाद शामिल हैं, ने दीपावली के आसपास वर्ष के अपने उच्चतम PM10 स्तर दर्ज किए, लेकिन चेन्नई दो कारणों से अलग दिखाई दिया।



- First, unlike some other cities that experience consistently high pollution levels, **Chennai's PM10 concentrations spiked only around Deepavali.**
पहला, कुछ अन्य शहरों के विपरीत जहाँ लगातार उच्च प्रदूषण स्तर होते हैं, चेन्नई का PM10 सांद्रता केवल दीपावली के आसपास ही बढ़ा।
- Second, the city's **peak PM10 level around Deepavali was the second highest in the country.**
दूसरा, शहर का दीपावली के आसपास का उच्चतम PM10 स्तर देश में दूसरा सबसे अधिक था।
- **Chart 1 shows hourly PM10 levels recorded between January 1 and October 22, 2025, across select cities.**
चार्ट 1 में चयनित शहरों में 1 जनवरी से 22 अक्टूबर, 2025 के बीच दर्ज किए गए प्रति घंटा PM10 स्तर दिखाए गए हैं।
- Both the **darker red shades and larger circles represent higher PM10 levels.**
दोनों गहरे लाल रंग और बड़े गोले उच्च PM10 स्तर का प्रतिनिधित्व करते हैं।
- Hourly **PM10 levels crossed the 900-mark in Chennai and Ahmedabad around Deepavali**, closely followed by 830 in Noida, 790 in Hyderabad, and 846 in Delhi.
प्रति घंटा PM10 स्तर ने दीपावली के आसपास चेन्नई और अहमदाबाद में 900 अंक पार किया, इसके तुरंत बाद नोएडा में 830, हैदराबाद में 790 और दिल्ली में 846 दर्ज हुए।
- Only **one measuring station in a prime residential area in each city was considered.**
प्रत्येक शहर में केवल एक प्रमुख आवासीय क्षेत्र में मापन स्टेशन को ध्यान में रखा गया।
- While **Ahmedabad recorded the highest levels of pollution this year around Deepavali**, it has experienced **high levels of pollution throughout the year unlike Chennai.**
जबकि अहमदाबाद ने इस वर्ष दीपावली के आसपास सबसे अधिक प्रदूषण स्तर दर्ज किया, यह पूरे वर्ष उच्च प्रदूषण स्तर का अनुभव करता रहा, चेन्नई के विपरीत।
- **Hyderabad also saw a sharp Deepavali spike**, though its **peak levels remained lower than Chennai's.**
हैदराबाद में भी दीपावली के समय तेज उछाल देखा गया, हालांकि इसके उच्चतम स्तर चेन्नई से कम रहे।
- **Chart 2 shows hourly levels of NH3, NO, NO2, SO2, PM10, and PM2.5 recorded in Velachery, Chennai.**
चार्ट 2 में वेलाचेरी, चेन्नई में दर्ज NH3, NO, NO2, SO2, PM10 और PM2.5 के प्रति घंटा स्तर दिखाए गए हैं।
- All these **pollutants showed sharp spikes during Deepavali hours.**
इन सभी प्रदूषकों ने दीपावली के घंटों के दौरान तेज उछाल दिखाए।
- **NOx (NO + NO2) and SO2 levels reached their annual peaks**, while both **PM10 and PM2.5 also recorded their highest levels of the year.**
NOx (NO + NO2) और SO2 स्तर अपने वार्षिक उच्चतम पर पहुंचे, जबकि PM10 और PM2.5 ने भी वर्ष के अपने उच्चतम स्तर दर्ज किए।
- In the graph, **red dots indicate Deepavali days in 2025.**
ग्राफ में, लाल बिंदु 2025 के दीपावली के दिनों को दर्शाते हैं।
- Such **sharp spikes in air pollutants were seen this Deepavali mainly in Chennai and Hyderabad.**
इस दीपावली में वायु प्रदूषकों में ऐसे तेज उछाल मुख्य रूप से चेन्नई और हैदराबाद में देखे गए।
- However, due to **persistent rain**, pollution in Chennai dropped sharply soon after **peaking.**
हालांकि, लगातार बारिश के कारण, चेन्नई में प्रदूषण अपने उच्चतम स्तर के तुरंत बाद तेजी से गिर गया।