PATRIOTIC IAS

THE HINDU NEWSPAPER
DAILY CURRENT AFFAIRS
(17 FEBRUARY 2025)

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

1. Sex and violence / सेक्स और हिंसा

GS Paper I: Society
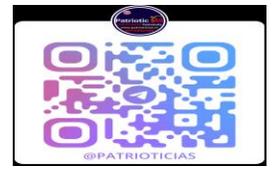
Sex and violence

Marriage should not provide immunity for sexual violence

A recent ruling by the Chhattisgarh High Court, which held that "unnatural sex" by a husband in marriage is not an offence, heavily relies on the presumption of consent within a marital relationship. The case involved a 40-year-old man from Bastar district who had been convicted by a sessions court in connection with the death of his wife in 2017. The sessions court found that the wife, in her 30s, fell ill and subsequently died following a forced physical relationship. However, on appeal, the High Court acquitted the husband. At the core of any discussion on marriage, or any relationship, must be the principle of consent. When physical harm occurs, especially leading to a tragic death, it cannot be excused under the presumption of marital consent. The issue at hand is not about the nature of the sexual act but the absence of consent and the use of force. The High Court relied on Exception II of Section 375 of the Indian Penal Code, which does not recognise marital rape as an offence unless the wife is under 15 years old – the Supreme Court of India raised this age to 18 in the Independent Thought vs Union of India & Anr. case (2017) – to justify acquitting the husband. This overturned the sessions court's verdict, which had sentenced him to 10 years of rigorous imprisonment.

The ruling once again brings attention to the ambiguous legal terrain surrounding sexual violence in marriage. In October 2024, the Supreme Court deferred hearings on pleas to criminalise marital rape. In previous judgments, it had indicated that the responsibility lies with the legislature to introduce laws on this issue. The Union government has also stated that criminalising marital rape could "undermine the institution of marriage". India remains one of the few countries where marital rape is not a criminal offence. Yet, data from the National Family Health Survey 5 (2019-2021) reveal that 32% of ever-married women aged 18 to 49 years in India have experienced physical, sexual, or emotional spousal violence, with only a small percentage seeking help. This stark reality should serve as a wake-up call for lawmakers, law enforcement, and society at large to take urgent action in ensuring women can live free from violence and fear. While constitutional safeguards on life, liberty, equality, and dignity exist, and laws are in place to protect women, true change requires a shift in societal attitudes and mindsets. No relationship, marriage included, should provide immunity for violence.

Sex and violence
सेक्स और हिंसा

- Marriage should not provide immunity for sexual violence
विवाह में यौन हिंसा के लिए प्रतिरक्षा प्रदान नहीं की जानी चाहिए

- Chhattisgarh High Court Ruling on Marital Consent
छत्तीसगढ़ उच्च न्यायालय का वैवाहिक सहमति पर निर्णय

- A recent ruling by the **Chhattisgarh High Court**, which held that "unnatural sex" by a husband in marriage is not an offence, heavily relies on the presumption of consent within a marital relationship.

- हाल ही में **छत्तीसगढ़ उच्च न्यायालय** द्वारा दिया गया निर्णय, जिसमें कहा गया कि शादी में पति द्वारा "अस्वाभाविक सेक्स" अपराध नहीं है, यह वैवाहिक संबंध में सहमति की धारणा पर आधारित है।

- The case involved a **40-year-old man** from **Bastar district** who had been convicted by a sessions court in connection with the death of his wife in **2017**.
इस मामले में **बस्तर जिला** के **40 वर्षीय व्यक्ति** को 2017 में अपनी पत्नी की मृत्यु से संबंधित मामले में सत्र न्यायालय द्वारा दोषी ठहराया गया था।

- The sessions court found that the wife, in her 30s, fell ill and subsequently died following a **forced physical relationship**.
सत्र न्यायालय ने पाया कि पत्नी, जो अपनी **30 के दशक** में थी, एक **जबरन शारीरिक संबंध** के बाद बीमार पड़ी और उसके बाद उसकी मृत्यु हो गई।

- However, on appeal, the High Court acquitted the husband.
हालाँकि, अपील पर उच्च न्यायालय ने पति को बरी कर दिया।
The core of any discussion on marriage, or any relationship, must be the principle of **consent**.
शादी या किसी भी रिश्ते पर चर्चा का मुख्य पहलू **सहमति** का सिद्धांत होना चाहिए।

- When physical harm occurs, especially leading to a tragic death, it cannot be excused under the presumption of marital consent.
जब शारीरिक हानि होती है, विशेष रूप से जब यह एक दुखद मृत्यु का कारण बनती है, तो इसे वैवाहिक सहमति की धारणा के तहत माफ नहीं किया जा सकता।

- The issue at hand is not about the nature of the sexual act but the **absence of consent** and the use of **force**.

- इस मामले का मुद्दा शारीरिक कृत्य की प्रकृति के बारे में नहीं है, बल्कि **सहमति की अनुपस्थिति** और **बल** के उपयोग के बारे में है।

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- The High Court relied on **Exception II of Section 375** of the **Indian Penal Code**, which does not recognise **marital rape** as an offence unless the wife is under **15 years old** — the **Supreme Court of India** raised this age to **18** in the **Independent Thought vs Union of India & Anr. case (2017)** — to justify acquitting the husband.

- उच्च न्यायालय ने **भारतीय दंड संहिता की धारा 375 के अपवाद II** पर आधारित किया, जो **वैवाहिक बलात्कार** को अपराध नहीं मानता जब तक पत्नी की आयु **15 वर्ष** से कम न हो – **भारत के सुप्रीम कोर्ट** ने इस आयु को **18** वर्ष तक बढ़ा दिया था, **स्वतंत्र विचार बनाम भारत संघ एवं अन्य (2017)** मामले में – ताकि पति को बरी किया जा सके।

- This overturned the sessions court's verdict, which had sentenced him to **10 years** of rigorous imprisonment.

- इसने सत्र न्यायालय के निर्णय को पलट दिया, जिसमें उसे **10 वर्ष** की कठोर कारावास की सजा दी गई थी।

Ambiguity in Legal Terrain on Marital Rape
वैवाहिक बलात्कार पर कानूनी स्थिति की अस्पष्टता

- The ruling once again brings attention to the **ambiguous legal terrain** surrounding sexual violence in marriage.

- यह निर्णय एक बार फिर से विवाह में यौन हिंसा के चारों ओर **कानूनी स्थिति की अस्पष्टता** पर ध्यान आकर्षित करता है।

- In **October 2024**, the **Supreme Court** deferred hearings on pleas to **criminalise marital rape**.

- **अक्टूबर 2024** में, **सुप्रीम कोर्ट** ने **वैवाहिक बलात्कार** को अपराधीकरण करने की याचिकाओं पर सुनवाई टाल दी।

- In previous judgments, it had indicated that the responsibility lies with the **legislature** to introduce laws on this issue.

- पिछली न्यायिक निर्णयों में, यह संकेत दिया गया था कि इस मुद्दे पर कानून बनाने की जिम्मेदारी **विधानसभा** की है।

- The **Union government** has also stated that criminalising **marital rape** could "undermine the institution of marriage."

- **केंद्र सरकार** ने यह भी कहा है कि **वैवाहिक बलात्कार** को अपराधीकरण करना "शादी के संस्थान को कमजोर कर सकता है।"

- India remains one of the few countries where **marital rape** is not a criminal offence.

- भारत कुछ देशों में से एक है जहाँ **वैवाहिक बलात्कार** को अपराध नहीं माना जाता।

Data on Spousal Violence
सांख्यिकीय जानकारी: पतिवधू हिंसा

- Yet, **data from the National Family Health Survey 5 (2019-2021)** reveal that **32%** of ever-married women aged **18 to 49 years** in India have experienced **physical, sexual, or emotional spousal violence**, with only a small percentage seeking help.

  फिर भी, **राष्ट्रीय परिवार स्वास्थ्य सर्वेक्षण 5 (2019-2021)** के आंकड़े बताते हैं कि भारत में **18 से**

49 वर्ष आयु की **32%** विवाहित महिलाओं ने **शारीरिक, यौन, या भावनात्मक पतिवधू हिंसा** का अनुभव किया है, और केवल एक छोटी प्रतिशत ने सहायता प्राप्त की है।

- This stark reality should serve as a **wake-up call** for **lawmakers**, **law enforcement**, and **society at large** to take urgent action in ensuring women can live free from violence and fear.

  यह कठोर वास्तविकता **कानून निर्माता, कानून प्रवर्तन एजेंसियाँ,** और **समाज** के लिए एक **सजग होने की चेतावनी** के रूप में कार्य करनी चाहिए, ताकि यह सुनिश्चित किया जा सके कि महिलाएँ हिंसा और भय से मुक्त जीवन जी सकें।

- While **constitutional safeguards** on **life, liberty, equality**, and **dignity** exist, and **laws** are in place to protect women, true change requires a shift in societal attitudes and mindsets.

  जबकि **जीवन, स्वतंत्रता, समानता,** और **मानव गरिमा** पर **संवैधानिक सुरक्षा** मौजूद हैं, और महिलाओं की रक्षा के लिए **कानून** लागू हैं, वास्तविक परिवर्तन के लिए समाज के दृष्टिकोण और मानसिकताओं में बदलाव की आवश्यकता है।

- No relationship, marriage included, should provide **immunity** for **violence**.

  किसी भी रिश्ते, जिसमें **विवाह** भी शामिल है, को **हिंसा** के लिए **किसी प्रकार की छूट** नहीं मिलनी चाहिए।

GS Paper I: Aurora

An image of an aurora was captured by cameras onboard the International Space Station on February 1 at an altitude of 419 km southwest of the coast of Western Australia. Its location makes this an example of aurora australis — the southern lights. NASA

Aurora

- An **aurora** is a natural light phenomenon predominantly seen in high-latitude regions near the Arctic and Antarctic circles, where charged particles from the sun collide with atoms in Earth's atmosphere, creating colorful light displays.
- **ऑरोरा** एक प्राकृतिक प्रकाश घटना है, जो मुख्य रूप से आर्कटिक और एंटार्कटिक वृत्तों के पास उच्च अक्षांशों में देखी जाती है, जहाँ सूर्य से आवेशित कण पृथ्वी के वायुमंडल में परमाणुओं से टकराकर रंगीन प्रकाश प्रदर्शन उत्पन्न करते हैं।

Types of Aurora

- The two primary types of auroras are the **Aurora Borealis** (Northern Lights) and **Aurora Australis** (Southern Lights).
- ऑरोरा के दो प्रमुख प्रकार हैं: **ऑरोरा बोरियालिस** (नॉर्दर्न लाइट्स) और **ऑरोरा ऑस्ट्रैलिस** (साउथर्न लाइट्स)।
- **Aurora Borealis:** The **Aurora Borealis** occurs in the Northern Hemisphere, primarily in regions like Norway, Sweden, Finland, Canada, and Alaska.
- **ऑरोरा बोरियालिस** उत्तरी गोलार्ध में होता है, मुख्य रूप से नॉर्वे, स्वीडन, फिनलैंड, कनाडा और अलास्का जैसे क्षेत्रों में।
- **Aurora Australis:** The **Aurora Australis** takes place in the Southern Hemisphere, visible in places like Antarctica, New Zealand, and parts of Australia.
- **ऑरोरा ऑस्ट्रैलिस** दक्षिणी गोलार्ध में होता है, जो अंटार्कटिका, न्यूजीलैंड और ऑस्ट्रेलिया के कुछ हिस्सों में देखा जाता है।

Causes of Aurora

- Auroras are caused by **solar wind**—a stream of charged particles emitted by the Sun that reaches Earth's magnetosphere. When these particles interact with Earth's magnetic field, they cause energy to be released in the form of light.
- ऑरोराएं **सौर पवन** द्वारा उत्पन्न होती हैं—यह चार्ज किए गए कणों की धारा होती है, जो सूर्य द्वारा उत्सर्जित होती है और पृथ्वी के चुंबकीय क्षेत्र में पहुंचती है। जब ये कण पृथ्वी के चुंबकीय क्षेत्र से प्रतिक्रिया करते हैं, तो ऊर्जा प्रकाश के रूप में रिलीज होती है।

The Science Behind Aurora

- When charged particles from the Sun, like electrons and protons, collide with Earth's magnetic field, they are funneled toward the poles. The particles then collide with oxygen and nitrogen atoms in the atmosphere, exciting them and causing them to emit light.

- जब सूर्य से चार्ज किए गए कण, जैसे इलेक्ट्रॉन्स और प्रोटॉन्स, पृथ्वी के चुंबकीय क्षेत्र से टकराते हैं, तो ये कण ध्रुवों की ओर बढ़ते हैं। फिर ये कण वायुमंडल में ऑक्सीजन और नाइट्रोजन परमाणुओं से टकराते हैं, जिससे वे उत्तेजित हो जाते हैं और प्रकाश उत्सर्जित करते हैं।

Colors of Aurora

- **Green** is the most common color, caused by oxygen molecules about 60 miles above Earth's surface.
- **हरा** सबसे सामान्य रंग है, जो ऑक्सीजन अणुओं द्वारा उत्पन्न होता है, जो पृथ्वी की सतह से लगभग 60 मील ऊपर होते हैं।
- **Red** occurs at higher altitudes when oxygen atoms are excited.
- **लाल** उच्च ऊंचाइयों पर होता है जब ऑक्सीजन परमाणु उत्तेजित होते हैं।
- **Purple and blue** colors are produced by nitrogen molecules.
- **बैंगनी और नीले** रंग नाइट्रोजन अणुओं द्वारा उत्पन्न होते हैं।

Where Can You See the Aurora?

- In the **Northern Hemisphere**, auroras are commonly seen in countries such as **Norway**, **Finland**, **Iceland**, **Canada**, and **Alaska**.
- **उत्तरी गोलार्ध** में, ऑरोराएं सामान्यतः देशों में देखी जाती हैं जैसे **नॉर्वे**, **स्वीडन**, **आइसलैंड**, **कनाडा**, और **अलास्का**।
- In the **Southern Hemisphere**, the best places to see the aurora are **New Zealand**, **Australia**, and **Antarctica**.
- **दक्षिणी गोलार्ध** में, ऑरोरा देखने के लिए सबसे अच्छे स्थान हैं **न्यूजीलैंड**, **ऑस्ट्रेलिया**, और **अंटार्कटिका**।

Importance of Aurora

- Auroras serve as a **natural signal** for geomagnetic activity and help scientists understand solar wind patterns and Earth's magnetic field interactions.
- ऑरोराएं **प्राकृतिक संकेत** के रूप में कार्य करती हैं, जो भूचुंबकीय गतिविधि को दर्शाती हैं और वैज्ञानिकों को सौर पवन के पैटर्न और पृथ्वी के चुंबकीय क्षेत्र की प्रतिक्रियाओं को समझने में मदद करती हैं।

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

1. **Stalin Slams Pradhan's Remarks on Tamil Nadu's Language Policy** / स्टालिन ने तमिलनाडु की भाषा नीति पर प्रधान की टिप्पणियों की निंदा की

2. **Successor of BSP Would Have to Be a True Kanshi Ram Disciple: Mayawati** / बसपा का उत्तराधिकारी सच्चा कांशीराम शिष्य होना चाहिए: मायावती

3. **Transactional Turn** / व्यापारिक दृष्टिकोण की ओर बदलाव

4. **The Panchayati Raj Movement is in Distress** / पंचायती राज आंदोलन संकट में है

5. **Interpreting the Recent Bangladesh-Pakistan Thaw** / बांग्लादेश-पाकिस्तान के हालिया संबंधों की व्याख्या

6. **President's Rule: Functioning and Application** / राष्ट्रपति शासन: कार्यप्रणाली और आवेदन

7. **Ahead of Emir's visit, calls grow for former Navy official's return** / अमीर की यात्रा से पहले, पूर्व नौसैनिक अधिकारी की वापसी के लिए आवाज़ें बढ़ी

8. **Indian Ocean Region is witnessing a sharp churning, says Jaishankar** / भारतीय महासागर क्षेत्र में तेज़ हलचल हो रही है, जयशंकर का कहना है

9. **U.K. will always be India's reliable partner: Minister** / ब्रिटेन हमेशा भारत का विश्वसनीय साझेदार रहेगा: मंत्री

Stalin flays Pradhan's remarks on language policy of Tamil Nadu

GS Paper II: Center State Relation

The Hindu Bureau
CHENNAI

Strongly reacting to Union Minister for Education Dharmendra Pradhan's comments on Tamil Nadu's position against the National Education Policy (NEP) and the three-language formula, Tamil Nadu Chief Minister M.K. Stalin on Sunday asserted that Tamils would not accept brash blackmail and that Delhi might have to see "Tamils' unique nature" if the State was denied of Samagra Shiksha funds.

Referring to Mr. Pradhan's observations that Tamil Nadu will have to come to terms with the Indian Constitution, Mr. Stalin said, "Which section of the Indian Constitution is making the three-language policy mandatory? Can the [Union] Education Minister point out?"

Underlining that the Indian Union was only made

M.K. Stalin

of States and that 'Education' was a subject in the Concurrent List, Mr. Stalin contended: "The Union government is not its [Education's] sole custodian. The Tamils will not tolerate the brash blackmail that there would be no funds for Tamil Nadu until the three-language policy was accepted."

"We are only asking for our rights," the CM said.

The Union Minister for Education, during a media interaction, had said: "They have to accept the NEP in letter and spirit."

Stalin Slams Pradhan's Remarks on Tamil Nadu's Language Policy

स्टालिन ने तमिलनाडु की भाषा नीति पर प्रधान की टिप्पणियों की निंदा की

Tamil Nadu Chief Minister M.K. Stalin strongly reacted to Union Minister for Education Dharmendra Pradhan's comments on Tamil Nadu's opposition to the National Education Policy (NEP) and the three-language formula.

तमिलनाडु के मुख्यमंत्री एम. के. स्टालिन ने केंद्रीय शिक्षा मंत्री धर्मेंद्र प्रधान की टिप्पणियों पर कड़ी प्रतिक्रिया दी, जो तमिलनाडु के राष्ट्रीय शिक्षा नीति (NEP) और त्रिभाषा फॉर्मूला के विरोध से संबंधित थीं।

- Mr. Stalin asserted that **Tamils would not accept brash blackmail** and warned that Delhi might have to see **"Tamils' unique nature"** if the State was denied **Samagra Shiksha funds.**

श्री स्टालिन ने कहा कि **तमिल लोग किसी भी तरह के जबरदस्ती दबाव को स्वीकार नहीं करेंगे** और चेतावनी दी कि यदि राज्य को **समग्र शिक्षा फंड** से वंचित किया गया तो दिल्ली को "**तमिलों की विशिष्ट प्रकृति**" देखनी पड़ सकती है।

- **Referring to Mr. Pradhan's statement** that Tamil Nadu must come to terms with the **Indian Constitution,** Mr. Stalin questioned, **"Which section of the Indian Constitution makes the three-language policy mandatory?"**

श्री प्रधान के इस बयान का जिक्र करते हुए कि तमिलनाडु को **भारतीय संविधान** को मानना होगा,

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श्री स्टालिन ने पूछा, "**भारतीय संविधान की कौन सी धारा त्रिभाषा नीति को अनिवार्य बनाती है?**"

- Mr. Stalin emphasized that **Education is a subject in the Concurrent List** and that the **Union government is not its sole custodian.**

  श्री स्टालिन ने जोर देकर कहा कि **शिक्षा समवर्ती सूची का विषय है** और **केंद्र सरकार इसकी एकमात्र संरक्षक नहीं है।**

- **Tamils will not tolerate brash blackmail** that funds will be denied unless the three-language policy is accepted, he added.

  उन्होंने कहा कि **तमिल लोग यह जबरदस्ती बर्दाश्त नहीं करेंगे** कि जब तक त्रिभाषा नीति स्वीकार नहीं की जाती, तब तक फंड रोक दिया जाए।

- **"We are only asking for our rights,"** Mr. Stalin asserted.

  "**हम सिर्फ अपने अधिकार मांग रहे हैं,**" श्री स्टालिन ने कहा।

- **Union Minister Dharmendra Pradhan,** during a media interaction, stated: **"They have to accept the NEP in letter and spirit."**

  केंद्रीय मंत्री धर्मेंद्र प्रधान ने मीडिया बातचीत के दौरान कहा: "**उन्हें NEP को पूरी तरह स्वीकार करना होगा।**"

Successor of BSP would have to be true Kanshi Ram disciple: Mayawati

GS Paper II: Polity

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Bahujan Samaj Party (BSP) chief Mayawati on Sunday asserted that the true successor of the party and its movement would be one like Kanshi Ram's disciple, who dedicates their life to strengthening the party, enduring every hardship in the process.

Her remarks come days after she announced the expulsion of Ashok Siddharth, father-in-law of her nephew Akash Anand, from the party on charges

BSP chief Mayawati

of factionalism and anti-party activities.

Mr. Anand, 30, BSP's national coordinator, is Ms. Mayawati's political successor. She had sacked him last year only to reinstate him later and appoint him

as her political successor.

In a series of posts on X, Ms. Mayawati emphasised that the BSP, founded by Kanshi Ram on the principles of Dr. B.R. Ambedkar to empower the country and uplift the Bahujan community, prioritises the movement over self-interest and personal relations.

"Following in his footsteps, as a disciple and successor of Kanshi Ram*ji*, I too will continue the struggle and make sacrifices till my last breath so that the Bahujan Samaj can stand on its own," she said.

Successor of BSP Would Have to Be a True Kanshi Ram Disciple: Mayawati

बसपा का उत्तराधिकारी सच्चा कांशीराम शिष्य होना चाहिए: मायावती

Bahujan Samaj Party (BSP) chief Mayawati on Sunday asserted that the true successor of the party and its movement would be one like Kanshi Ram's disciple, who dedicates their life to strengthening the party, enduring every hardship in the process.

बहुजन समाज पार्टी (बसपा) की प्रमुख मायावती ने रविवार को कहा कि पार्टी और

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Transactional turn

India must push back against the U.S. and safeguard its interests

Prime Minister Narendra Modi's visit to Washington last week was brief but packed with headline-generating developments. The visit came less than a month after U.S. President Donald Trump was sworn in, making Mr. Modi the fourth world leader to hold bilateral meetings with him, following the leaders of Israel, Japan, and Jordan, all close U.S. allies. The joint statement issued afterwards outlined a range of substantive discussions. While many announcements focused on India's purchases of American goods and investments in the U.S., they managed to avoid some of the tough measures many had anticipated. Both sides launched 'Mission 500' ($500 billion in bilateral trade by 2030) and initiated discussions on a free trade agreement, with phase one of the draft expected this year. Mr. Trump announced an increase in Indian purchases of U.S. energy, oil, and defence equipment, moves expected to help balance the $45.7 billion U.S. trade deficit within the total $130 billion goods trade. Additionally, there was agreement on a new umbrella framework, COM-PACT, or Catalyzing Opportunities for Military Partnership, Accelerated Commerce & Technology for the 21st Century, to streamline cooperation across key sectors. They also rebranded the Biden-era Initiative on Critical and Emerging Technologies (iCET) as Transforming the Relationship Utilising Strategic Technology (TRUST), focusing on semiconductors, quantum computing, and AI, with a commitment to developing an AI infrastructure road map this year. A significant moment came when Mr. Trump announced his approval of the extradition of Tahawwur Rana, involved in 26/11 attacks, to India for trial.

Once the dust settles on Mr. Trump's unconventional remarks and Mr. Modi's rare engagement with the media in this format, India must assess the broader takeaways from this visit. The positive optics and their camaraderie signal a strong foundation for India-U.S. relations over the next four years. There is also clear continuity in key areas of strategic partnership, including Indo-Pacific engagement and the Quad, with Mr. Trump's planned visit to Delhi for the Quad Summit later this year expected to reinforce these commitments. However, economic discussions, trade, energy, nuclear cooperation and defence are likely to dominate the India-U.S. agenda, giving the relationship a transactional turn reminiscent of Mr. Trump's first tenure. There is not much evidence that Mr. Modi's visit significantly softened Mr. Trump's stance on imposing counter-tariffs and reciprocal taxes or influenced a more humane approach to the deportation of undocumented immigrants aboard military flights. These could present challenges for the Indian government going forward. As India engages with the new U.S. administration, it must carefully assess its own interests, assert its position where necessary, and push back when required to safeguard its strategic and economic priorities.

उसके आंदोलन का सच्चा उत्तराधिकारी कांशीराम जी का सच्चा शिष्य होगा, जो पार्टी को मजबूत करने के लिए अपना जीवन समर्पित करेगा और हर कठिनाई सहन करेगा।

• Her remarks come **days after she announced the expulsion of Ashok Siddharth,** father-in-law of her nephew **Akash Anand,** from the party on charges of **factionalism and anti-party activities.**
उनके ये बयान **अशोक सिद्धार्थ को पार्टी से निष्कासित करने की घोषणा के कुछ दिन बाद आए,** जो उनके भतीजे **आकाश आनंद** के ससुर हैं। उन्हें **गुटबाजी और विरोधी पार्टी गतिविधियों** के आरोपों में पार्टी से निकाला गया।

• **Akash Anand, 30, BSP's national coordinator,** is **Ms. Mayawati's political successor.** She had **sacked him last year** only to reinstate him later and appoint him as her political successor.
30 वर्षीय आकाश आनंद, बसपा के राष्ट्रीय समन्वयक, मायावती के **राजनीतिक उत्तराधिकारी** हैं। उन्होंने **पिछले साल उन्हें हटाया था,** लेकिन बाद में फिर से नियुक्त कर दिया और अपना उत्तराधिकारी बना दिया।

• In a series of posts on **X (formerly Twitter), Ms. Mayawati** emphasised that the BSP, founded by **Kanshi Ram** on the principles of **Dr. B.R. Ambedkar,** prioritises the movement over self-interest and personal relations.
मायावती ने **X (पहले ट्विटर)** पर पोस्ट की एक श्रृंखला में कहा कि **बसपा, जिसे कांशीराम ने डॉ. भीमराव अंबेडकर के सिद्धांतों पर स्थापित किया था,** आंदोलन को आत्म-स्वार्थ और व्यक्तिगत संबंधों से ऊपर रखती है।

• **"Following in his footsteps, as a disciple and successor of Kanshi Ramji,** I too will continue the struggle and make sacrifices till my last breath so that the **Bahujan Samaj can stand on its own,"** she said.
"उनके पदचिह्नों पर चलते हुए, कांशीराम जी की शिष्या और उत्तराधिकारी के रूप में, मैं भी संघर्ष जारी रखूंगी और अंतिम सांस तक बलिदान दूंगी ताकि **बहुजन समाज आत्मनिर्भर बन सके,"** उन्होंने कहा।

Transactional Turn
व्यापारिक दृष्टिकोण की ओर बदलाव

Prime Minister Narendra Modi's visit to Washington last week was brief but packed with headline-generating developments.

प्रधानमंत्री नरेंद्र मोदी की वाशिंगटन यात्रा पिछले हफ्ते **संक्षिप्त थी लेकिन कई महत्वपूर्ण घोषणाओं से भरी हुई थी।**

- The visit came **less than a month after U.S. President Donald Trump** was sworn in, making **Mr. Modi the fourth world leader** to hold bilateral meetings with him, after the leaders of **Israel, Japan, and Jordan.**
  यह यात्रा **अमेरिकी राष्ट्रपति डोनाल्ड ट्रंप के शपथ ग्रहण के एक महीने के भीतर** हुई, जिससे **श्री मोदी दुनिया के चौथे नेता** बन गए जिन्होंने उनसे द्विपक्षीय वार्ता की, **इज़राइल, जापान और जॉर्डन के नेताओं** के बाद।

- The **joint statement** issued afterwards outlined **a range of substantive discussions.**
  इसके बाद जारी **संयुक्त बयान** में **विस्तृत और महत्वपूर्ण चर्चाओं** का उल्लेख किया गया।

- Many announcements focused on **India's purchases of American goods** and **investments in the U.S.**
  कई घोषणाएँ **भारत द्वारा अमेरिकी वस्तुओं की खरीद** और **अमेरिका में निवेश** पर केंद्रित थीं।

- Both sides launched **'Mission 500'** ($500 billion in bilateral trade by 2030) and initiated discussions on **a free trade agreement,** with **phase one of the draft expected this year.**
  दोनों पक्षों ने **'मिशन 500'** ($500 बिलियन का द्विपक्षीय व्यापार 2030 तक) शुरू किया और **मुक्त व्यापार समझौते** पर चर्चा शुरू की, जिसका **पहला चरण इस वर्ष आने की उम्मीद है।**

- **Mr. Trump announced an increase** in Indian purchases of **U.S. energy, oil, and defence equipment,** moves expected to **help balance the $45.7 billion U.S. trade deficit** within the total **$130 billion goods trade.**
  श्री ट्रंप ने घोषणा की कि भारत **अमेरिकी ऊर्जा, तेल और रक्षा उपकरण** की खरीद बढ़ाएगा, जिससे **$45.7 बिलियन के अमेरिकी व्यापार घाटे** को **$130 बिलियन के कुल व्यापार** में संतुलित करने में मदद मिलेगी।

- There was an agreement on **a new umbrella framework, COMPACT** (Catalyzing Opportunities for Military Partnership, Accelerated Commerce & Technology for the 21st Century) **to streamline cooperation across key sectors.**
  एक नए समग्र ढांचे, **COMPACT** (Catalyzing Opportunities for Military Partnership, Accelerated Commerce & Technology for the 21st Century) पर सहमति बनी, जिससे **मुख्य क्षेत्रों में सहयोग को सुगम बनाया जाएगा।**

- The **Biden-era Initiative on Critical and Emerging Technologies (iCET)** was rebranded as **Transforming the Relationship Utilizing Strategic Technology (TRUST),** focusing on **semiconductors, quantum computing, and AI.**

  बाइडेन-युग की महत्वपूर्ण और उभरती प्रौद्योगिकियों (iCET) पहल को **Transforming the Relationship Utilizing Strategic Technology (TRUST)** के रूप में पुनः ब्रांड किया गया, जो **सेमीकंडक्टर्स, क्वांटम कंप्यूटिंग और AI** पर केंद्रित होगी।

- A commitment was made to **develop an AI infrastructure road map this year.**

  इस वर्ष AI इन्फ्रास्ट्रक्चर रोडमैप विकसित करने की प्रतिबद्धता जताई गई।

- A significant moment came when **Mr. Trump announced his approval of the extradition of Tahawwur Rana** to India for trial, in connection with the **26/11 attacks.**

  एक महत्वपूर्ण घोषणा में **श्री ट्रंप ने 26/11 हमलों में शामिल ताहव्वुर राणा के भारत प्रत्यर्पण को** मंजूरी दी।

- Once the dust settles on **Mr. Trump's unconventional remarks** and **Mr. Modi's rare media engagement,** India must assess the **broader takeaways from this visit.**

  जब **श्री ट्रंप की असामान्य टिप्पणियाँ** और **श्री मोदी की मीडिया से दुर्लभ बातचीत** का प्रभाव शांत होगा, तब भारत को इस यात्रा के **महत्वपूर्ण निष्कर्षों का मूल्यांकन** करना चाहिए।

- The **positive optics and camaraderie** signal **a strong foundation for India-U.S. relations over the next four years.**

  सकारात्मक संकेत और आपसी तालमेल अगले चार वर्षों के लिए **भारत-अमेरिका संबंधों की मजबूत नींव** को दर्शाते हैं।

- There is **clear continuity in key areas of strategic partnership, including Indo-Pacific engagement and the Quad,** with Mr. Trump's planned **visit to Delhi for the Quad Summit later this year.**

  इंडो-पैसिफिक सहयोग और क्वाड सहित रणनीतिक साझेदारी के प्रमुख क्षेत्रों में स्पष्ट निरंतरता है, क्योंकि श्री ट्रंप इस वर्ष के अंत में **क्वाड शिखर सम्मेलन के लिए दिल्ली जाने की योजना बना रहे हैं।**

- However, **economic discussions, trade, energy, nuclear cooperation, and defence** are likely to dominate the **India-U.S. agenda,** giving the relationship a **transactional turn reminiscent of Mr. Trump's first tenure.**

  हालांकि, **आर्थिक वार्ताएँ, व्यापार, ऊर्जा, परमाणु सहयोग और रक्षा** भारत-अमेरिका एजेंडा पर हावी हो सकते हैं, जिससे यह संबंध श्री ट्रंप के पहले कार्यकाल की तरह व्यापारिक दृष्टिकोण की ओर मुड़ सकता है।

- There is **not much evidence** that Mr. Modi's visit significantly softened **Mr. Trump's stance on counter-tariffs and reciprocal taxes** or influenced a **more humane approach to the deportation of undocumented immigrants aboard military flights.**

  इस बात का **कोई ठोस प्रमाण नहीं है** कि श्री मोदी की यात्रा ने **श्री ट्रंप के प्रतिशोधी टैरिफ और कर नीतियों** को नरम किया हो या **अवैध प्रवासियों को सैन्य उड़ानों से निर्वासित करने पर अधिक मानवीय दृष्टिकोण** अपनाने के लिए प्रभावित किया हो।

- These could **present challenges for the Indian government going forward.**

  ये भविष्य में **भारतीय सरकार के लिए चुनौतियाँ पेश कर सकते हैं।**

- As India engages with the **new U.S. administration,** it must carefully assess **its own interests, assert its position where necessary, and push back when required** to safeguard **its strategic and economic priorities.**

  जब भारत **नई अमेरिकी सरकार** से बातचीत करेगा, तो उसे **अपने हितों का सावधानीपूर्वक मूल्यांकन करना चाहिए, आवश्यकतानुसार अपने रुख को स्पष्ट करना चाहिए और जरूरत पड़ने पर पीछे धकेलना चाहिए** ताकि वह **अपनी रणनीतिक और आर्थिक प्राथमिकताओं की रक्षा कर सके।**

Bahujan Samaj Party (BSP)

- The Bahujan Samaj Party (BSP) is a significant political entity in India, established to represent the interests of marginalized communities, including Scheduled Castes (SC), Scheduled Tribes (ST), Other Backward Classes (OBC), and religious minorities.
- Founded on **14 April 1984** by **Kanshi Ram**, the party draws inspiration from prominent social reformers such as **B. R. Ambedkar**, **Jyotirao Phule**, **Narayana Guru**, **Chhatrapati Shahuji Maharaj**, and **Gautama Buddha**.

Historical Background

- **Formation and Ideology**: The term "Bahujan" is derived from Sanskrit, meaning "the majority," and encompasses communities that collectively form a significant portion of India's population. The BSP was conceived to address the socio-economic challenges faced by these groups, advocating for social transformation and economic emancipation.
- **Leadership Transition**: In **2001**, Kanshi Ram appointed **Mayawati** as his successor. Under her leadership, the BSP expanded its influence, particularly in Uttar Pradesh.

The panchayati raj movement is in distress

GS Paper II: Local Governance

The special discussion in Parliament on the 75th anniversary of the Indian Constitution has long passed. While several salient aspects of the Constitution and policy directions adopted by previous governments were highlighted, one heard very little on a vital aspect of governance in India.

The 73rd amendment to the Constitution, passed in 1992, is one of the landmarks of India's journey as a constitutional republic, establishing the panchayati raj system. However, the momentum towards deepening local governance in India has stalled. Big shifts in both technology and society are threatening to make panchayats irrelevant, unless we are prepared to rethink their role. The 73rd amendment initiated the process of institutionalising decentralisation in rural India. The three-tier system, at the village, block, and district levels, with a regular cycle of local elections and 50% reservation for women, Scheduled Castes, and Scheduled Tribes, kicked off a movement that took democracy to the grassroots, thus emphasising the importance of local representation and inclusion in political leadership.

There is one bright spot
Panchayati raj elections are now keenly contested in many parts of the country. There have been many success stories – possibly the most notable of them being the scale of women's participation in leadership (nearly 14 lakh elected women representatives). The Constitution also mandated State Finance Commissions to recommend the quantum of funds that should flow to local governments as well as the administrative mechanisms by which it should take place. Various social sector programmes are now implemented through local governments, particularly gram panchayats (village-level local government).

Why then is the panchayati raj movement in distress? There are several reasons such as a decline in public participation, overdependence on centrally sponsored schemes, and politicisation through the engagement of political parties, which are equally important factors behind the steady decline of panchayats even in pioneer States such as Kerala.

But one must look at the longer-term systemic factors that have affected the evolution of the

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Panchayats now operate in a very different development paradigm

panchayati raj movement in India. Panchayats now operate in a very different development paradigm from when they were originally introduced, and there is now a real risk that the spirit of the panchayati raj movement will die.

A decline, the big shifts
Let us look at four such big shifts.

First, administrative decentralisation has plateaued. In order to function effectively, State governments need to devolve staff to local governments and cede administrative control. Similarly, the flow of untied grants that flow to local governments needs to increase to enhance autonomy in local decision-making. Having made an initial set of reforms, the sense one gets is that there is no momentum. A report in 2022 by the Ministry of Panchayati Raj showed that less than 20% of States have devolved all 29 subjects listed in the Eleventh Schedule of the Constitution.

Second, in practical terms, panchayats have been forced to cede fiscal autonomy over recent years. Direct transfers to panchayats increased from ₹1.45 lakh crore under the Thirteenth Finance Commission (2010-15) to ₹2.36 lakh crore under the Fifteenth Finance Commission (2021-26). At the same time, there has been a significant reduction in untied grants, from 85% in the Thirteenth Finance Commission to 60% in the Fifteenth Finance Commission. Further, these direct transfers are being used by the central government to marginalise State governments in the name of efficiency, while the tied grants give them more control through central government functionaries and central scheme guidelines.

Third, the larger reason is a reimagination of the welfare state in India that has taken root over the last few years, an overt reliance by political parties on cash transfers of various hues to woo the electorate. And since these were delivered primarily using the Jan Dhan-Aadhaar-Mobile (JAM) platform, the role of gram panchayats as intermediaries for beneficiary selection or grievance redress has reduced significantly. For example, the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme, which disburses ₹6,000 annually to farmers, operates through direct transfers without the active involvement of panchayati raj institutions. While efficient, this model reduces the local accountability that panchayats traditionally provided.

Fourth, is the rapid urbanisation that India has

seen in recent decades. In 1990, nearly three-quarters of India lived in rural areas. This has now decreased to around 60%, and is going down steadily. The consistent trend of urbanisation has meant that the policy focus of development has shifted to India's cities and towns. Municipal reforms, both of governance and financing, is the main priority of today.

Ways to revive the system
As highlighted, it is evident that over the last decade, the view from the top is increasingly one that treats panchayats merely as last-mile delivery instruments for social sector schemes in rural India. This view of local governance is not conducive to a revival of panchayats in the country.

Of course, electoral politics at the panchayat level and the representation and the power that comes from winning will not allow panchayats to wither away very soon. But local governance in rural India needs to be revived in substantive terms as 94 crore Indians still live in villages. Over 45% of the population is still engaged in agriculture. Rural India – call it Bharat if you will – cannot be overlooked.

With advancements in technology, citizen engagement in local planning, decision-making and accountability processes will deepen. A networked panchayati raj system could play a vital role in bridging the rural-urban divide, for instance, by supporting safe and dignified internal migration, and also supporting both migrants and their families that stay behind.

Another area towards which the role of panchayats could be focused is to play a role in enabling water conservation and renewable energy generation at scale. Panchayats can reclaim their role in the management of common property resources, bringing to bear a mix of scientific practices, traditional knowledge and public finances. Panchayats can also play a key role in implementing community-based disaster risk management programmes, integrating early warning systems, disaster-resilient infrastructure, and capacity-building for residents.

We need to look further out and talk more to people. In order to reestablish the momentum behind local governance reforms and to support what is still a significant proportion of India's population that lives in its villages, we need to adopt a new vision for panchayati raj in India.

The Panchayati Raj Movement is in Distress
पंचायती राज आंदोलन संकट में है

The special discussion in Parliament on the 75th anniversary of the Indian Constitution has long passed.

भारतीय संविधान की 75वीं वर्षगांठ पर संसद में हुई विशेष चर्चा काफी पहले समाप्त हो चुकी है।

- While several **salient aspects of the Constitution and policy directions** adopted by previous governments were highlighted, **one heard very little on a vital aspect of governance in India.**
  हालांकि, पूर्ववर्ती सरकारों द्वारा अपनाई गई **नीतियों और संविधान के प्रमुख पहलुओं** पर चर्चा हुई, लेकिन **भारत में शासन के एक महत्वपूर्ण पहलू पर बहुत कम ध्यान दिया गया।**

- The **73rd amendment to the Constitution, passed in 1992,** is one of the **landmarks of India's journey as a constitutional republic,** establishing the **panchayati raj system.**
  संविधान का 73वां संशोधन, 1992 में पारित, भारत की संवैधानिक गणराज्य के रूप में यात्रा का एक महत्वपूर्ण मील का पत्थर है, जिसने **पंचायती राज व्यवस्था** की स्थापना की।

- However, the **momentum towards deepening local governance** in India has stalled.
  हालांकि, भारत में **स्थानीय शासन को मजबूत करने की गति** रुक गई है।

- **Big shifts in both technology and society** are threatening to make **panchayats irrelevant, unless we are prepared to rethink their role.**
  तकनीक और समाज में बड़े बदलाव पंचायतों को अप्रासंगिक बनाने की धमकी दे रहे हैं, जब तक कि हम **उनकी भूमिका पर पुनर्विचार करने के लिए तैयार नहीं होते।**

- The **73rd amendment initiated the process** of **institutionalising decentralisation in rural India.**
  73वें संशोधन ने ग्रामीण भारत में विकेंद्रीकरण को संस्थागत बनाने की प्रक्रिया शुरू की।

- The **three-tier system** at the **village, block, and district levels**, with a **regular cycle of local elections** and **50% reservation for women, Scheduled Castes, and Scheduled Tribes**, kicked off a **movement that took democracy to the grassroots.**
  गांव, ब्लॉक और जिला स्तरों पर तीन-स्तरीय प्रणाली, जिसमें नियमित स्थानीय चुनाव और महिलाओं, अनुसूचित जातियों और अनुसूचित जनजातियों के लिए 50% आरक्षण शामिल था, एक ऐसा आंदोलन लेकर आया जिसने लोकतंत्र को जमीनी स्तर तक पहुंचाया।

There is One Bright Spot
एक उज्ज्वल पहलू है

- **Panchayati raj elections** are now **keenly contested** in many parts of the country.
  पंचायती राज चुनाव अब देश के कई हिस्सों में **कड़े मुकाबले के साथ** लड़े जाते हैं।

- There have been many **success stories** — possibly the most notable being the **scale of women's participation in leadership (nearly 14 lakh elected women representatives).**
  कई **सफल कहानियाँ** सामने आई हैं– जिनमें सबसे उल्लेखनीय **महिलाओं की नेतृत्व में भागीदारी** का स्तर (लगभग 14 लाख निर्वाचित महिला प्रतिनिधि) है।

- The **Constitution also mandated State Finance Commissions** to recommend the **quantum of funds that should flow to local governments** as well as the **administrative mechanisms** by which it should take place.

  संविधान ने राज्य वित्त आयोगों को भी अनिवार्य किया कि वे स्थानीय सरकारों को जाने वाले धनराशि की मात्रा और प्रशासनिक तंत्र की सिफारिश करें।

- Various **social sector programmes** are now implemented through **local governments, particularly gram panchayats.**

  विभिन्न सामाजिक क्षेत्र की योजनाएँ अब स्थानीय सरकारों, विशेष रूप से ग्राम पंचायतों के माध्यम से लागू की जाती हैं।

Why then is the Panchayati Raj Movement in Distress?
फिर पंचायती राज आंदोलन संकट में क्यों है?

- There are several reasons, such as:

  इसके कई कारण हैं, जैसे कि:

  o A **decline in public participation.**

    जन भागीदारी में गिरावट।

  o **Overdependence on centrally sponsored schemes.**

    केंद्र प्रायोजित योजनाओं पर अत्यधिक निर्भरता।

  o **Politicisation through the engagement of political parties.**

    राजनीतिक दलों की भागीदारी से राजनीति करण।

- These factors have contributed to the **steady decline of panchayats even in pioneer States such as Kerala.**

  इन कारणों से केरल जैसे अग्रणी राज्यों में भी पंचायतों में गिरावट देखी गई है।

- But one must look at the **longer-term systemic factors** that have affected the **evolution of the panchayati raj movement in India.**

  लेकिन दीर्घकालिक प्रणालीगत कारकों को देखना होगा जिन्होंने भारत में पंचायती राज आंदोलन के विकास को प्रभावित किया है।

- **Panchayats now operate in a very different development paradigm** from when they were originally introduced.

  पंचायतें अब एक बहुत अलग विकास प्रतिमान में कार्य कर रही हैं जब उनकी शुरुआत हुई थी।

- There is now a **real risk that the spirit of the panchayati raj movement will die.**

  अब यह वास्तविक खतरा है कि पंचायती राज आंदोलन की भावना समाप्त हो जाएगी।

A Decline, The Big Shifts
गिरावट और बड़े बदलाव

- Let us look at **four such big shifts.**

  आइए, ऐसे चार बड़े बदलावों को देखें।

- **First**, administrative decentralisation has **plateaued.**

  पहला, प्रशासनिक विकेंद्रीकरण **रुक सा गया है।**

  o To function effectively, **State governments need to devolve staff to local governments and cede administrative control.**

    प्रभावी रूप से कार्य करने के लिए, **राज्य सरकारों को कर्मचारियों को स्थानीय सरकारों को सौंपना और प्रशासनिक नियंत्रण छोड़ना चाहिए।**

  o **Untied grants** to local governments must increase to **enhance autonomy in local decision-making.**

    स्थानीय सरकारों के लिए **बिना शर्त अनुदान** बढ़ाया जाना चाहिए ताकि **स्थानीय निर्णय लेने की स्वायत्तता** बढ़े।

  o A **2022 report by the Ministry of Panchayati Raj** showed that **less than 20% of States** have devolved **all 29 subjects** listed in the **Eleventh Schedule of the Constitution.**

    पंचायती राज मंत्रालय की 2022 की रिपोर्ट के अनुसार, केवल **20% से कम राज्य** ही संविधान की ग्यारहवीं अनुसूची में सूचीबद्ध **29 विषयों** को पूरी तरह सौंप पाए हैं।

- **Second**, in practical terms, panchayats have been forced to **cede fiscal autonomy over recent years.**

  दूसरा, व्यावहारिक रूप से, पंचायतों को हाल के वर्षों में **वित्तीय स्वायत्तता छोड़ने के लिए मजबूर किया गया है।**

  o **Direct transfers** to panchayats increased from **₹1.45 lakh crore** under the **Thirteenth Finance Commission (2010-15)** to **₹2.36 lakh crore** under the **Fifteenth Finance Commission (2021-26).**

    तेरहवें वित्त आयोग (2010-15) के तहत ₹1.45 लाख करोड़ से बढ़कर **पंद्रहवें वित्त आयोग (2021-26) के तहत ₹2.36 लाख करोड़** पंचायतों को सीधे हस्तांतरित किए गए।

  o However, **untied grants** have reduced from **85% (13th Finance Commission)** to **60% (15th Finance Commission).**

    हालांकि, **बिना शर्त अनुदान 85% (तेरहवें वित्त आयोग)** से घटकर **60% (पंद्रहवें वित्त आयोग)** हो गया।

  o The **central government** is using these **direct transfers** to marginalise **State governments** in the name of **efficiency.**

    केंद्र सरकार इन **सीधे हस्तांतरणों** का उपयोग **राज्य सरकारों** को हाशिए पर डालने के लिए **कुशलता** के नाम पर कर रही है।

  o **Tied grants** give the **central government more control** through **central scheme guidelines and functionaries.**

    बंधे हुए अनुदान से **केंद्र सरकार को अधिक नियंत्रण** मिलता है, क्योंकि वे **केंद्र सरकार की योजनाओं और अधिकारियों** के माध्यम से संचालित होते हैं।

- **Third**, a **reimagination of the welfare state** in India has led to **political parties relying on direct cash transfers** to woo voters.

तीसरा, भारत में **कल्याणकारी राज्य की नई परिकल्पना** ने राजनीतिक दलों को **प्रत्यक्ष नकद हस्तांतरण** पर निर्भर कर दिया है।

- o The **Jan Dhan-Aadhaar-Mobile (JAM) platform** has reduced the role of **gram panchayats in beneficiary selection and grievance redressal.**

   जन धन-आधार-मोबाइल (JAM) प्लेटफॉर्म ने लाभार्थी चयन और शिकायत निवारण में **ग्राम पंचायतों की भूमिका** को कम कर दिया है।

- o For example, **PM-KISAN scheme**, which disburses **₹6,000 annually to farmers,** operates through **direct transfers** without **panchayati raj institutions' involvement.**

   उदाहरण के लिए, **प्रधानमंत्री किसान सम्मान निधि (PM-KISAN) योजना**, जो **किसानों को वार्षिक ₹6,000 वितरित करती है**, **सीधे हस्तांतरण** के माध्यम से कार्य करती है, जिसमें **पंचायती राज संस्थाओं की कोई भूमिका नहीं होती।**

- o While efficient, this model **reduces local accountability,** which was traditionally ensured by **panchayats.**

   यह मॉडल भले ही **कुशल हो, लेकिन यह स्थानीय जवाबदेही को कमजोर करता है,** जो पहले **पंचायतों के माध्यम से सुनिश्चित की जाती थी।**

- **Fourth**, rapid urbanisation has shifted the **policy focus from rural areas to cities.**

   चौथा, तेजी से हो रहे शहरीकरण ने **नीतिगत ध्यान ग्रामीण क्षेत्रों से शहरों की ओर स्थानांतरित कर दिया है।**

   - o In **1990, nearly three-quarters** of India lived in **rural areas**; now it has **decreased to around 60%.**

      1990 में, लगभग तीन-चौथाई भारत **ग्रामीण क्षेत्रों** में रहता था; अब यह घटकर **लगभग 60%** रह गया है।

   - o Urbanisation has led to **municipal governance and financing reforms** becoming a priority.

      शहरीकरण ने **नगरपालिका शासन और वित्तीय सुधारों** को प्राथमिकता बना दिया है।

Ways to Revive the System
प्रणाली को पुनर्जीवित करने के तरीके

- Over the **last decade,** the central government has increasingly **treated panchayats as last-mile delivery instruments for rural social schemes.**

   पिछले दशक में, केंद्र सरकार ने पंचायतों को **ग्रामीण सामाजिक योजनाओं के अंतिम-स्तरीय क्रियान्वयन उपकरण** के रूप में देखा है।

- However, **electoral politics at the panchayat level** will ensure that panchayats do not **wither away completely.**

   हालांकि, **पंचायत स्तर पर चुनावी राजनीति** यह सुनिश्चित करेगी कि पंचायतें पूरी तरह **खत्म न हो जाएं।**

- **94 crore Indians still live in villages**, and over **45% of the population is engaged in agriculture.**

  94 करोड़ भारतीय अभी भी गांवों में रहते हैं, और **45% से अधिक जनसंख्या कृषि में संलग्न है।**

- Rural India, often called **Bharat,** cannot be overlooked.

  ग्रामीण भारत, जिसे अक्सर **'भारत'** कहा जाता है, **उपेक्षित नहीं किया जा सकता।**

- With **advancements in technology,** citizen engagement in **local planning, decision-making, and accountability** will deepen.

  तकनीक में प्रगति के साथ, **स्थानीय योजना, निर्णय-निर्माण और जवाबदेही** में नागरिकों की भागीदारी बढ़ेगी।

- A **networked panchayati raj system** can help **bridge the rural-urban divide** by supporting **safe and dignified internal migration.**

  संगठित पंचायती राज प्रणाली ग्रामीण-शहरी विभाजन को पाटने में मदद कर सकती है और **सुरक्षित एवं सम्मानजनक आंतरिक प्रवासन** को समर्थन दे सकती है।

- Panchayats can focus on **water conservation and renewable energy generation** at a large scale.

  पंचायतें **जल संरक्षण और नवीकरणीय ऊर्जा उत्पादन** पर बड़े पैमाने पर ध्यान केंद्रित कर सकती हैं।

- They can also play a key role in **managing common property resources** by integrating **scientific practices, traditional knowledge, and public finances.**

  पंचायतें **सामूहिक संपत्ति संसाधनों के प्रबंधन** में वैज्ञानिक तरीकों, पारंपरिक ज्ञान और सार्वजनिक वित्त को शामिल कर सकती हैं।

- **Community-based disaster risk management** can be implemented through panchayats, integrating **early warning systems and disaster-resilient infrastructure.**

  पंचायतों के माध्यम से **सामुदायिक-आधारित आपदा जोखिम प्रबंधन** को लागू किया जा सकता है, जिसमें **अग्रिम चेतावनी प्रणाली और आपदा-रोधी बुनियादी ढांचा** शामिल होगा।

- To **reestablish local governance momentum**, we need to adopt a **new vision for panchayati raj** in India.

  स्थानीय शासन की गति को फिर से स्थापित करने के लिए, हमें **भारत में पंचायती राज के लिए एक नई दृष्टि** अपनाने की आवश्यकता है।

Interpreting the recent Bangladesh-Pakistan thaw

GS Paper II: India- Bangladesh-Pakistan

The bitter legacy of the 1971 liberation war, where Bangladesh split from Pakistan, has long steered the nature of ties between Dhaka and Islamabad. However, recent bilateral engagement between the two sides demonstrates Dhaka's intent to diversify its foreign policy trajectory in the subcontinent. Since August 2024, after the fall of the Sheikh Hasina government following a student-led revolt, there have been several meetings between Muhammad Yunus, the Chief Adviser to the interim Bangladesh government, and Pakistan Prime Minister Shehbaz Sharif. In contrast, the absence of any engagement between Mr. Yunus and India's Prime Minister Narendra Modi sheds light on this shifting equation.

The ousting of Ms. Hasina set the stage for a potential recalibration in the region – one that is likely to unsettle New Delhi. During Ms. Hasina's 15-year tenure, bilateral relations remained strained, partly due to her family's historic grievances against Pakistan's ruling class. Her close alliance with India likely emerged as a key factor for the continued frosty ties with Islamabad in the following years. Tensions between Bangladesh and Pakistan peaked in 2016, with both countries expelling diplomats.

Recent developments
However, under the leadership of Mr. Yunus, there has been a strengthening of ties. Some key and recent developments underscore this. For instance, Bangladesh hosted a high-level Pakistani military delegation in Rangpur, located close to the strategically crucial Siliguri Corridor. This was followed by a rare visit by Lieutenant-general S.M. Kamr-ul-Hassan, the Bangladesh Army's second-in-command, to Rawalpindi to meet with Pakistan's Army, Navy, and Air Force chiefs. Dhaka has also announced the resumption of direct flights to Islamabad and also participated in Pakistan's Aman 2025 naval exercises in the Arabian Sea (February 7-11), which included the deployment of a major

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With the count of hostile neighbours growing, India needs to be both vigilant and constructive in its ties with Bangladesh

Bangladeshi warship to Pakistan for the first time in over a decade.

Despite the apparent warming of relations, can these interactions translate into meaningful outcomes? Or will they remain symbolic with little tangible impact?

The ground realities
While Mr. Yunus has watered down Dhaka's demand that Pakistan to apologise for the "1971 genocide" to one merely seeking a "resolution of the issues", Dhaka will face challenges in managing public opinion. A significant number of Bangladeshis still view the separation from Pakistan as a bedrock of their national identity. Without addressing this deeply ingrained historic grievance in the psyche of Bangladeshi society, substantial diplomatic progress appears unlikely in the long term. This remains especially true should Islamabad continue to frame the 1971 war as an Indian conspiracy rather than acknowledging it as a separatist movement that was a product of an expression of Bengali identity and in response to the excesses of the government in West Pakistan. In addition, from a strategic and economic perspective, a partnership with Islamabad will offer limited gains for Dhaka, particularly given the misalignment between the economic realities of both countries. The geographical separation of Bangladesh and Pakistan by Indian territory is further likely to create connectivity and political hurdles for smooth trade.

As India closely monitors the situation, the diplomatic manoeuvres will be perceived as Pakistan's efforts to counter New Delhi's faltering influence in Dhaka after Ms. Hasina's ouster. Interestingly, these dynamics also coincide with India's unprecedented pivot of warming relations with the ruling Taliban in Afghanistan, a traditional ally of Pakistan. Indian Foreign Secretary Vikram Misri met Mawlawi Amir Khan Muttaqi, the acting foreign minister of the Taliban government, in Dubai, in January, which is the

highest level of interaction between both sides ever since the group took control of Afghanistan in 2021.

The outline of New Delhi's approach
With the count of hostile neighbours now growing, which includes the Maldives and Nepal's increasing alignment with China, does New Delhi have a new cause for concern?

India's approach to Bangladesh should be grounded in an understanding of the economic and geographical realities. Despite the evolving nature of Dhaka-Islamabad ties, Bangladesh will find it challenging to adopt an overtly anti-India stance, given its geographic proximity and economic dependence on India. India remains Bangladesh's leading trading partner in the region. In 2023, Indian exports to Bangladesh were $11.25 billion, while Bangladesh's exports to India stood at approximately $2 billion in 2023. Many of these imports, particularly raw materials, are crucial for Bangladesh's industries.

That said, India must remain vigilant: first, there is scope for an axis involving Bangladesh, China, and Pakistan, and second, on the issue of security in its northeast States. India must clarify its red lines with Bangladesh in critical areas such as terrorism, weapons trade, joint military drills, and maritime security. While remaining firm on these issues, New Delhi should also constructively engage with Bangladesh, laying an emphasis on people-to-people contacts, cultural exchanges, and developmental projects. Both countries must also continue their cooperation on the critical issues of border trade and smuggling, water sharing and refugee concerns. Maintaining this momentum will require New Delhi to proactively address prevailing anti-India and anti-Hindu sentiments in Bangladesh as well as capitalise on its economic engagement to reinforce its ties with Dhaka. Maintaining a constituency that is favourable to India within Bangladesh remains crucial for long-term strategic stability.

Interpreting the Recent Bangladesh-Pakistan Thaw
बांग्लादेश-पाकिस्तान के हालिया संबंधों की व्याख्या

The bitter legacy of the 1971 liberation war, where Bangladesh split from Pakistan, has long steered the nature of ties between Dhaka and Islamabad.

1971 के मुक्ति संग्राम की कड़वी विरासत, जिसमें बांग्लादेश पाकिस्तान से अलग हुआ था, ने लंबे समय से ढाका और इस्लामाबाद के संबंधों को प्रभावित किया है।

- However, **recent bilateral engagement** demonstrates **Dhaka's intent** to **diversify its foreign policy** trajectory in the subcontinent.

  हालांकि, **हालिया द्विपक्षीय वार्ता** यह दर्शाती है कि **ढाका दक्षिण एशिया में अपनी विदेश नीति को विविधता देना चाहता है।**

- Since **August 2024**, after the **fall of the Sheikh Hasina government** following a **student-led revolt**, there have been several meetings between **Muhammad Yunus, the Chief Adviser to the interim Bangladesh government, and Pakistan Prime Minister Shehbaz Sharif.**

  अगस्त 2024 से, जब **शेख हसीना सरकार एक छात्र-नेतृत्व वाले विद्रोह के बाद गिर गई**, तब से बांग्लादेश की अंतरिम सरकार के मुख्य सलाहकार मुहम्मद यूनुस और पाकिस्तान के प्रधानमंत्री शहबाज शरीफ के बीच कई बैठकें हुई हैं।

- In contrast, the **absence of any engagement** between **Mr. Yunus and India's Prime Minister Narendra Modi** sheds light on this **shifting equation**.

  इसके विपरीत, श्री यूनुस और भारत के प्रधानमंत्री नरेंद्र मोदी के बीच किसी भी बातचीत की अनुपस्थिति, इस बदलते समीकरण को दर्शाती है।

The Ousting of Sheikh Hasina and Its Impact
शेख हसीना की सत्ता से बेदखली और उसका प्रभाव

- The **ousting of Ms. Hasina** set the stage for a **potential recalibration in the region** — one that is likely to **unsettle New Delhi**.

  शेख हसीना की सत्ता से बेदखली ने क्षेत्रीय समीकरण में संभावित बदलाव की स्थिति पैदा कर दी, जिससे नई दिल्ली असहज हो सकती है।

- During **Ms. Hasina's 15-year tenure**, bilateral relations remained **strained**, partly due to **her family's historic grievances** against **Pakistan's ruling class**.

  शेख हसीना के 15 साल के शासनकाल में, द्विपक्षीय संबंध तनावपूर्ण बने रहे, जिसका एक कारण उनके परिवार की पाकिस्तान के शासक वर्ग के प्रति ऐतिहासिक शिकायतें थीं।

- Her **close alliance with India** likely emerged as a **key factor** for the continued **frosty ties with Islamabad** in the following years.

  भारत के साथ उनकी करीबी गठजोड़ संभवतः इस्लामाबाद के साथ ठंडे संबंधों का एक प्रमुख कारण बना।

- **Tensions peaked in 2016**, with **both countries expelling diplomats**.

  2016 में तनाव चरम पर पहुंच गया, जब दोनों देशों ने राजनयिकों को निष्कासित कर दिया।

Recent Developments
हालिया घटनाक्रम

- Under the **leadership of Mr. Yunus**, there has been a **strengthening of ties**.

  श्री यूनुस के नेतृत्व में, बांग्लादेश-पाकिस्तान संबंधों में मजबूती आई है।

- Some **key developments** underscore this:
  कुछ **मुख्य घटनाक्रम** इसे दर्शाते हैं:
  - **Bangladesh hosted a high-level Pakistani military delegation** in **Rangpur**, located **close to the strategically crucial Siliguri Corridor**.
    बांग्लादेश ने एक उच्च स्तरीय पाकिस्तानी सैन्य प्रतिनिधिमंडल की मेजबानी की रंगपुर में, जो रणनीतिक रूप से महत्वपूर्ण सिलीगुड़ी कॉरिडोर के पास स्थित है।
  - This was followed by a **rare visit by Lieutenant-General S.M. Kamr-ul-Hassan**, the **Bangladesh Army's second-in-command**, to **Rawalpindi** to meet with **Pakistan's Army, Navy, and Air Force chiefs**.
    इसके बाद, बांग्लादेश सेना के डिप्टी कमांडर लेफ्टिनेंट-जनरल एस.एम. कामर-उल-हसन ने रावलपिंडी का दुर्लभ दौरा किया, जहाँ उन्होंने पाकिस्तानी सेना, नौसेना और वायुसेना प्रमुखों से मुलाकात की।
  - Dhaka has announced the **resumption of direct flights to Islamabad**.
    ढाका ने इस्लामाबाद के लिए सीधी उड़ानों को फिर से शुरू करने की घोषणा की।
  - Bangladesh participated in **Pakistan's Aman 2025 naval exercises** in the **Arabian Sea (February 7-11)**, deploying a **major Bangladeshi warship to Pakistan for the first time in over a decade**.
    बांग्लादेश ने पाकिस्तान के अमन 2025 नौसैनिक अभ्यास (7-11 फरवरी) में भाग लिया, और **10 से अधिक वर्षों में पहली बार पाकिस्तान में एक प्रमुख बांग्लादेशी युद्धपोत तैनात किया।

Key Questions

मुख्य प्रश्न

- Despite the **apparent warming of relations**, can these interactions translate into **meaningful outcomes**?
  भले ही संबंधों में गर्माहट दिख रही हो, क्या ये बातचीत वास्तविक परिणाम ला सकती हैं?
- Or will they remain **symbolic with little tangible impact**?
  या फिर ये सिर्फ प्रतीकात्मक रह जाएंगी और कोई ठोस प्रभाव नहीं डालेंगी?

The Ground Realities

जमीनी हकीकत

- While **Mr. Yunus** has watered down **Dhaka's demand** that **Pakistan apologise** for the "**1971 genocide**" to merely seeking a "**resolution of the issues**", Dhaka will face **challenges in managing public opinion**.
  जबकि श्री यूनुस ने ढाका की **1971 के नरसंहार** पर पाकिस्तान से **माफी मांगने की मांग** को केवल

"**मुद्दों के समाधान**" तक सीमित कर दिया है, फिर भी ढाका को **जनमत प्रबंधन में चुनौतियों** का सामना करना पड़ेगा।**

- A **significant number** of Bangladeshis still view the **separation from Pakistan** as a **bedrock of their national identity**.

  कई बांग्लादेशी अभी भी **पाकिस्तान से अलगाव** को अपनी **राष्ट्रीय पहचान की आधारशिला** मानते हैं।

- Without addressing this **deeply ingrained historic grievance**, **substantial diplomatic progress** appears **unlikely** in the **long term**.

  इस ऐतिहासिक शिकायत को हल किए बिना, **लंबी अवधि में** कोई **महत्वपूर्ण कूटनीतिक प्रगति** की संभावना **कम** है।

- If **Islamabad** continues to frame the **1971 war** as an **Indian conspiracy** rather than acknowledging it as a **separatist movement**, then diplomatic progress will be even **more difficult**.

  यदि इस्लामाबाद 1971 के युद्ध को **भारतीय साजिश** के रूप में प्रस्तुत करता है, बजाय इसे **अलगाववादी आंदोलन** के रूप में स्वीकार करने के, तो कूटनीतिक प्रगति और **कठिन** हो जाएगी।

- A **partnership with Islamabad** will offer **limited gains for Dhaka**, given the **economic misalignment** between both countries.

  इस्लामाबाद के साथ साझेदारी से ढाका को **सीमित लाभ** मिलेगा, क्योंकि दोनों देशों के बीच **आर्थिक असंतुलन** है।

- **Geographical separation** of **Bangladesh and Pakistan** by **Indian territory** will further create **connectivity and political hurdles** for **smooth trade**.

  भारत की भौगोलिक सीमा के कारण **बांग्लादेश और पाकिस्तान** के बीच **व्यापार और कनेक्टिविटी** में बाधाएं आ सकती हैं।

India's Diplomatic Moves
भारत की कूटनीतिक गतिविधियाँ

- As **India monitors** the situation, **Pakistan's efforts** to counter **New Delhi's influence** in Dhaka will be closely observed.

  भारत इस स्थिति की निगरानी कर रहा है और यह देखेगा कि **पाकिस्तान** किस तरह से **नई दिल्ली के प्रभाव** को ढाका में **कमजोर करने की कोशिश** कर रहा है।

- These **dynamics** coincide with **India's growing ties** with the **Taliban in Afghanistan**, a **traditional ally of Pakistan**.

  ये घटनाक्रम भारत और **अफगानिस्तान में तालिबान** के बीच बढ़ते **संबंधों** के साथ मेल खाते हैं, जो कि **पाकिस्तान का पारंपरिक सहयोगी** रहा है।

- **Indian Foreign Secretary Vikram Misri** met **Mawlawi Amir Khan Muttaqi** in **Dubai** in **January**, marking the **highest-level interaction** with the Taliban since **2021**.

  भारतीय विदेश सचिव विक्रम मिश्री ने **जनवरी** में **दुबई** में **मौलवी अमीर खान मुत्ताकी** से मुलाकात की, जो कि **2021** के बाद तालिबान के साथ **सबसे उच्च-स्तरीय बातचीत** थी।

The Outline of New Delhi's Approach
नई दिल्ली की रणनीति का खाका

- With **hostile neighbours growing**, including **Maldives and Nepal aligning with China**, **does India have a new cause for concern?**

  शत्रुतापूर्ण पड़ोसी बढ़ रहे हैं, जिनमें **मालदीव और नेपाल का चीन के साथ गठजोड़** शामिल है, तो क्या **भारत को नई चिंता होनी चाहिए?**

- **Bangladesh** will find it **challenging** to adopt an **overtly anti-India stance**, given its **geographic proximity** and **economic dependence** on India.

  बांग्लादेश के लिए **भारत विरोधी रुख अपनाना मुश्किल** होगा, क्योंकि वह **भौगोलिक रूप से पास** और **आर्थिक रूप से भारत पर निर्भर** है।

- In **2023**, **Indian exports to Bangladesh** were **$11.25 billion**, while **Bangladesh's exports to India** stood at approximately **$2 billion**.

  2023 में, भारत से बांग्लादेश को निर्यात 11.25 अरब डॉलर था, जबकि **बांग्लादेश से भारत को निर्यात** लगभग **2 अरब डॉलर** था।

- **Many imports**, particularly **raw materials**, are **crucial** for **Bangladesh's industries**.

  कई आयात, विशेष रूप से **कच्चा माल**, **बांग्लादेश के उद्योगों** के लिए **अत्यंत महत्वपूर्ण** हैं।

- India must remain **vigilant** as there is a **potential axis involving Bangladesh, China, and Pakistan**.

  भारत को सतर्क रहना होगा, क्योंकि **बांग्लादेश, चीन और पाकिस्तान के गठबंधन** की संभावना है।

- India must clarify **red lines** with **Bangladesh** on **critical issues** such as **terrorism, weapons trade, joint military drills, and maritime security**.

  भारत को बांग्लादेश के साथ आतंकवाद, हथियार व्यापार, संयुक्त सैन्य अभ्यास, और समुद्री सुरक्षा जैसे **महत्वपूर्ण मुद्दों** पर **स्पष्ट रुख** रखना होगा।

- While being **firm** on security issues, **New Delhi** should also emphasize **people-to-people contacts, cultural exchanges, and developmental projects**.

  सुरक्षा मामलों पर सख्ती के साथ-साथ, **नई दिल्ली** को **जनसंपर्क, सांस्कृतिक आदान-प्रदान और विकास परियोजनाओं** को भी प्राथमिकता देनी चाहिए।

- **Border trade, smuggling, water sharing, and refugee concerns** must continue to be areas of cooperation.

  सीमा व्यापार, तस्करी, जल बंटवारा और शरणार्थी मुद्दे सहयोग के प्रमुख क्षेत्र बने रहने चाहिए।

- **To maintain strategic stability**, India must **address anti-India and anti-Hindu sentiments** in Bangladesh.

  रणनीतिक स्थिरता बनाए रखने के लिए, भारत को **बांग्लादेश में भारत-विरोधी और हिंदू-विरोधी भावनाओं** को संबोधित करना होगा।

- **Strengthening economic ties** will be **key** to ensuring **a favorable constituency** for India in Bangladesh.

  आर्थिक संबंधों को मजबूत करना भारत के लिए **बांग्लादेश में एक अनुकूल माहौल सुनिश्चित करने की कुंजी** होगा।

How does a President's rule function?

Why did the President of India issue a proclamation in Manipur after Chief Minister Biren Singh resigned? What are the different kinds of emergencies? Is a national emergency and President's rule the same? Has this power been misused by the Union?

GS Paper II: President Rule

EXPLAINER

Kartikey Singh

The story so far:

On February 13, four days after Manipur Chief Minister N. Biren Singh's resignation, the Union government announced that President's rule has been implemented in the violence-hit State. A notification from the Ministry of Home Affairs stated that President Droupadi Murmu was satisfied that "a situation has arisen in which the government of that State cannot be carried on in accordance with the provisions of the Constitution."

Why has it been imposed?
The violence between the Meitei and Kuki-Zo communities, ongoing since May 2023, has claimed above 250 lives and displaced over 60,000 people. The conflict originated from the Meitei demand for Scheduled Tribe (ST) status, which the Kukis opposed, fearing loss of job opportunities and other affirmative actions meant for STs. A political crisis erupted in the State after Mr. Singh resigned on February 9, and the State BJP leadership struggled to reach a consensus on his successor.

What does the Constitution say?
Emergency provisions, inspired by the German Constitution and outlined in Part XVIII of the Indian Constitution, protect India's sovereignty, unity and security. They empower the Central government to address extraordinary crises by temporarily assuming control to ensure stability and safeguard the democratic framework. The Constitution provides for three types of emergencies – national (Article 352), State (Article 356) and financial (Article 360).

In Manipur, the President has proclaimed a "state emergency" – popularly known as "President's Rule" or "Constitutional Emergency" – by exercising powers under Article 356. This fulfils the Union's obligation under Article 355 to protect States against 'external aggression' and 'internal disturbance' (such as separatist or sectarian violence or calamities beyond a State's control) and to ensure that State governments operate as per the Constitution. When a State's "constitutional machinery" fails due to non-performance or malperformance, Article 356(1) empowers the President to issue a proclamation– upon receiving a report from the Governor or otherwise – if she is satisfied that the State government cannot function constitutionally. This effectively transfers all executive functions of the State to the Centre and legislative functions to Parliament while leaving the High Court's (HC) powers unaffected. Additionally, Article 365 provides that if a State fails to comply with any Union directions under constitutional provisions, the President may declare a "Constitutional Emergency."

As per Clause 3 of Article 356, the proclamation must be laid before each House of Parliament, and unless approved by a 'simple majority' in both Houses, it ceases after two months. Once approved, it remains effective for six months from the proclamation date, with further six-month extensions requiring additional Parliamentary approval. Renewal beyond one year is allowed only if two conditions are met – an Emergency has been declared in the country or any part of the State, and if the Election Commission certifies that President's rule is necessary due to difficulties in conducting State elections. However, in no case can the proclamation remain effective for more than three years, and the President may revoke or vary it at any time by a subsequent proclamation.

How is a 'constitutional emergency' different from a 'national emergency'?
Article 352 governs the proclamation of a "national emergency," which has been invoked thrice – during the 1962 India-China war, the 1971-armed conflict with Pakistan, and in 1975 on grounds of "internal disturbance." In 1975, then Prime Minister Indira Gandhi declared the emergency after the Allahabad High Court, in *The State of Uttar Pradesh versus Raj Narain* (1975), found her guilty of "electoral malpractices" and debarred her from holding any elected post.

Unlike a "State emergency," proclaiming a "national emergency" requires that the President be satisfied that India's security – or any part of its territory – is threatened by war, external aggression, or armed rebellion. The 44th Constitutional amendment (1978) introduced multiple safeguards to prevent misuse. It replaced "internal disturbance" with "armed rebellion", mandated a written recommendation from the Cabinet (rather than just the Prime Minister), and shortened the parliamentary approval window from two months to one month. It also clarified that Articles 20 and 21 cannot be suspended, and that the President must revoke the proclamation if the Lok Sabha passes a resolution disapproving it. Crucially, the amendment restored judicial review of the President's satisfaction in proclaiming an emergency, a safeguard removed by the 38th Constitutional amendment (1975).

Unlike a "constitutional emergency" (which can last up to three years), a "national emergency" has no time limit. Additionally, while the President's rule (Article 356) requires a 'simple majority' for parliamentary approval, a national emergency needs a 'special majority'. In a national emergency, the State executive and legislature continue to function, whereas under President's Rule, the State executive is dismissed, and the legislature is suspended or dissolved. However, the Manipur Assembly, which has a tenure till 2027, has not been dissolved but is placed under "suspended animation". This means that the Assembly is temporarily "paused", allowing its revival if 'political stability' is restored.

Does it affect fundamental rights?
President's rule does not affect citizens' fundamental rights, unlike a national emergency, where under Article 358, freedoms under Article 19 become inoperative, and the President may suspend other fundamental rights, except Articles 20 and 21. Under President's Rule, the President acquires extraordinary powers, with the Governor, on her behalf, administering the State with assistance from the Chief Secretary or advisers appointed by the President. Additionally, Article 357 allows Parliament to confer legislative power on the President and authorise delegation to another authority while also giving the President power to sanction expenditure from the State's Consolidated Fund.

How often has it been imposed?
Though Dr. B.R. Ambedkar hoped it would remain a "dead letter," President's rule has been imposed nearly 134 times across 29 States and UTs since the Constitution took effect in 1950, reflecting its dual role as both a crisis-management tool and a politically contentious measure. The very first application of Article 356 occurred in June 1951 in Punjab. Manipur is tied with Uttar Pradesh for the most frequent imposition of President's Rule, at 10 each – driven by chronic political instability – with Manipur's latest imposition bringing its total to 11. The longest President's Rule in Manipur lasted two years and 157 days (1969-1972). Jammu & Kashmir holds the record for the longest cumulative duration, over 12 years (4,668 days), due to militancy and separatist movements, followed by Punjab (over 10 years, 3,878 days) and Puducherry (over seven years, 2,739 days).

What has the SC said about the use and misuse of President's rule?
For a long time, courts upheld the Centre's frequent unusual imposition of President's rule. However, the landmark *S.R. Bommai versus Union of India* (1994) judgment redefined these powers. Referencing the Sarkaria Commission's recommendation that Article 356 be used only as a last resort, the SC observed, "The Constitution of India has created a federation but with a bias in favour of the Centre. ...But that does not mean that States are mere appendages of the Centre"... It also highlighted the Commission's points that "constitutional machinery" could fail due to political crises, internal subversion or fiscal breakdown, among other factors.

Further, the SC held that the President's power under Article 356 is conditional, not absolute, and that any proclamation is subject to judicial review. Both the SC and HCs can strike it down if found *mala fide* or based on irrelevant or extraneous grounds. The top court further clarified that the President cannot dissolve the assembly without Parliament's approval and that the Centre must first issue a warning notice to the erring State, seeking an explanation. Once proclaimed, the State government has to go, as two governments in one sphere is impermissible. Moreover, the SC clarified that President's rule must be invoked only for breakdowns of "constitutional machinery" (distinct from ordinary law-and-order failures) and never for political gains.

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

At a standstill: Personnel keep vigil after security measures were increased after the imposition of President's rule in Manipur, in Imphal, on February 14. PTI

THE GIST

▼
Emergency provisions, inspired by the German Constitution and outlined in Part XVIII of the Indian Constitution, protect India's sovereignty, unity and security.

▼
Though Dr. B.R. Ambedkar hoped it would remain a "dead letter," President's rule has been imposed nearly 134 times across 29 States and UTs since the Constitution took effect in 1950, reflecting its dual role as both a crisis-management tool and a politically contentious measure.

▼
For a long time, courts upheld the Centre's frequent unusual imposition of President's rule. However, the landmark *S.R. Bommai versus Union of India* (1994) judgment redefined these powers.

President's Rule: Functioning and Application
राष्ट्रपति शासन: कार्यप्रणाली और आवेदन

On February 13, four days after Manipur Chief Minister N. Biren Singh's resignation, the Union government announced that President's rule has been implemented in the violence-hit State.

13 फरवरी को, मणिपुर के मुख्यमंत्री एन. बीरेन सिंह के इस्तीफे के चार दिन बाद, केंद्र सरकार ने घोषणा की कि राष्ट्रपति शासन को हिंसा प्रभावित राज्य में लागू किया गया है।

- A **notification from the Ministry of Home Affairs** stated that **President Droupadi Murmu** was satisfied that **"a situation has arisen in which the government of that State cannot be carried on in accordance with the provisions of the Constitution."**
  गृह मंत्रालय की अधिसूचना में कहा गया कि **राष्ट्रपति द्रौपदी मुर्मू** संतुष्ट थीं कि **"ऐसी स्थिति उत्पन्न हो गई है जिसमें उस राज्य की सरकार संविधान के प्रावधानों के अनुसार नहीं चल सकती।"**

Why has it been imposed?
इसे क्यों लागू किया गया है?

- The **violence between the Meitei and Kuki-Zo communities, ongoing since May 2023,** has claimed **above 250 lives** and displaced **over 60,000 people**.
  मैतै और कुकी-जो समुदायों के बीच मई 2023 से जारी हिंसा में 250 से अधिक लोगों की जान चली गई और 60,000 से अधिक लोग विस्थापित हो गए।
- The conflict originated from the **Meitei demand for Scheduled Tribe (ST) status**, which the **Kukis opposed**, fearing loss of **job opportunities and other affirmative actions** meant for STs.
  यह संघर्ष मैतै समुदाय की अनुसूचित जनजाति (ST) का दर्जा पाने की मांग से शुरू हुआ, जिसका कुकी समुदाय ने विरोध किया, क्योंकि उन्हें नौकरी के अवसरों और अन्य आरक्षण लाभों के नुकसान की आशंका थी।
- A **political crisis erupted** in the State after **Mr. Singh resigned on February 9**, and the **State BJP leadership struggled to reach a consensus on his successor.**
  9 फरवरी को श्री सिंह के इस्तीफे के बाद राज्य में राजनीतिक संकट उत्पन्न हो गया, और राज्य भाजपा नेतृत्व उनके उत्तराधिकारी पर सहमति बनाने में असफल रहा।

What does the Constitution say?
संविधान क्या कहता है?

- **Emergency provisions** in **Part XVIII** of the Indian Constitution, inspired by the **German Constitution**, protect **India's sovereignty, unity, and security.**
  भारतीय संविधान के **भाग XVIII में** आपातकालीन प्रावधान, जो जर्मन संविधान से प्रेरित हैं, भारत की संप्रभुता, एकता और सुरक्षा की रक्षा करते हैं।

- These provisions empower the **Central government to address extraordinary crises** by **temporarily assuming control** to ensure **stability and safeguard democracy.**
  ये प्रावधान केंद्र सरकार को असाधारण संकटों से निपटने और स्थिरता व लोकतंत्र की रक्षा के लिए अस्थायी रूप से नियंत्रण संभालने का अधिकार देते हैं।

- The Constitution provides for **three types of emergencies:**
  संविधान तीन प्रकार की आपात स्थितियों का प्रावधान करता है:
  - **National Emergency (Article 352)**
    राष्ट्रीय आपातकाल (अनुच्छेद 352)
  - **State Emergency (Article 356) - President's Rule**
    राज्य आपातकाल (अनुच्छेद 356) - राष्ट्रपति शासन
  - **Financial Emergency (Article 360)**
    वित्तीय आपातकाल (अनुच्छेद 360)

- In Manipur, the **President has proclaimed a "state emergency"** (popularly known as **President's Rule**) by exercising **powers under Article 356**.
  मणिपुर में, राष्ट्रपति ने "राज्य आपातकाल" घोषित किया (जिसे आमतौर पर राष्ट्रपति शासन कहा जाता है) और अनुच्छेद 356 के तहत शक्तियों का प्रयोग किया।

- This fulfills the Union's **obligation under Article 355** to **protect States against 'external aggression' and 'internal disturbance'** and ensure that **State governments operate as per the Constitution.**
  यह अनुच्छेद 355 के तहत केंद्र की जिम्मेदारी को पूरा करता है, जिसके तहत उसे राज्यों को 'बाहरी आक्रमण' और 'आंतरिक अशांति' से बचाना और यह सुनिश्चित करना होता है कि राज्य सरकारें संविधान के अनुसार कार्य करें।

- When a **State's "constitutional machinery" fails** due to **non-performance or malperformance**, **Article 356(1) empowers the President** to issue a **proclamation** upon receiving a **report from the Governor** or otherwise.
  जब किसी राज्य की "संवैधानिक व्यवस्था" विफल हो जाती है (अकर्मण्यता या कुप्रबंधन के कारण), तो अनुच्छेद 356(1) राष्ट्रपति को राज्यपाल की रिपोर्ट मिलने पर या अन्यथा एक घोषणा जारी करने की शक्ति देता है।

- This **effectively transfers all executive functions of the State to the Centre** and **legislative functions to Parliament**, while leaving the **High Court's powers unaffected.**

इससे **राज्य की सभी कार्यकारी शक्तियां केंद्र को हस्तांतरित** हो जाती हैं और **विधायी कार्य संसद को सौंप दिए जाते हैं**, जबकि **उच्च न्यायालय की शक्तियां अप्रभावित रहती हैं।**

- Additionally, **Article 365** states that if a **State fails to comply with any Union directions**, the **President may declare a "Constitutional Emergency."**
  इसके अलावा, **अनुच्छेद 365** में कहा गया है कि यदि कोई **राज्य केंद्र के किसी भी निर्देश का पालन करने में विफल रहता है**, तो राष्ट्रपति **"संवैधानिक आपातकाल"** घोषित कर सकते हैं।

- As per **Clause 3 of Article 356**, the **proclamation must be laid before each House of Parliament** and unless approved by a **'simple majority'**, it ceases after **two months**.
  अनुच्छेद 356 के खंड 3 के अनुसार, इस घोषणा को संसद के दोनों सदनों के समक्ष प्रस्तुत किया जाना आवश्यक है और यदि इसे **'सरल बहुमत'** से स्वीकृति नहीं मिलती, तो यह **दो महीने** के बाद समाप्त हो जाती है।

- Once approved, it **remains effective for six months** and can be extended further for **another six months with Parliamentary approval**.
  स्वीकृति मिलने के बाद, यह **छह महीने तक प्रभावी रहता है** और इसे **संसद की मंजूरी से अगले छह महीने के लिए बढ़ाया जा सकता है।**

- However, extension **beyond one year** is allowed only if:
  हालांकि, **एक वर्ष से अधिक विस्तार** केवल तभी संभव है यदि:
  - An **Emergency has been declared** in the country or any part of the State.
    देश में या राज्य के किसी हिस्से में आपातकाल घोषित किया गया हो।
  - The **Election Commission certifies** that elections cannot be conducted.
    चुनाव आयोग यह प्रमाणित करे कि चुनाव कराना संभव नहीं है।

- In **no case can President's rule remain effective for more than three years**.
  किसी भी स्थिति में राष्ट्रपति शासन तीन वर्षों से अधिक प्रभावी नहीं रह सकता।

- The **President may revoke or vary** the proclamation at any time.
  राष्ट्रपति किसी भी समय इस घोषणा को रद्द या संशोधित कर सकते हैं।

Difference between a 'Constitutional Emergency' and a 'National Emergency'
'संवैधानिक आपातकाल' और 'राष्ट्रीय आपातकाल' के बीच अंतर

- **Article 352** governs the proclamation of a **"National Emergency"**, which has been invoked **thrice** — during the **1962 India-China war, the 1971 armed conflict with Pakistan, and in 1975 on grounds of "internal disturbance"**.
  अनुच्छेद 352 **"राष्ट्रीय आपातकाल"** की उद्घोषणा को नियंत्रित करता है, जिसे **तीन बार** लागू किया गया है – **1962 के भारत-चीन युद्ध, 1971 के पाकिस्तान के साथ सशस्त्र संघर्ष और 1975 में "आंतरिक अशांति" के आधार पर।**

- In **1975**, then **Prime Minister Indira Gandhi** declared the emergency after the **Allahabad High Court** found her guilty of **"electoral malpractices"** and debarred her from holding any elected post.

1975 में, तत्कालीन **प्रधानमंत्री इंदिरा गांधी** ने आपातकाल की घोषणा की जब **इलाहाबाद उच्च न्यायालय** ने उन्हें **"चुनावी कदाचार"** का दोषी ठहराया और किसी भी निर्वाचित पद को धारण करने से अयोग्य घोषित कर दिया।

- Unlike a **"State emergency"**, proclaiming a **"National Emergency"** requires that the **President be satisfied** that India's **security** — or any part of its **territory** — is **threatened by war, external aggression, or armed rebellion**.

  "राज्य आपातकाल" के विपरीत, **"राष्ट्रीय आपातकाल"** की उद्घोषणा के लिए **राष्ट्रपति की संतुष्टि आवश्यक** होती है कि भारत की **सुरक्षा** — या इसके किसी भाग की **क्षेत्रीय अखंडता** — **युद्ध, बाहरी आक्रमण, या सशस्त्र विद्रोह** से खतरे में है।

- The **44th Constitutional Amendment (1978)** introduced multiple **safeguards** to prevent **misuse**.

  44वें संविधान संशोधन (1978) ने दुरुपयोग रोकने के लिए कई **सुरक्षा उपाय** जोड़े।

  o **"Internal disturbance"** was replaced with **"armed rebellion"**.

    "आंतरिक अशांति" को **"सशस्त्र विद्रोह"** से बदल दिया गया।

  o **Cabinet's written recommendation** was made mandatory instead of just the **Prime Minister's discretion**.

    केवल **प्रधानमंत्री के विवेकाधिकार** के बजाय **मंत्रिमंडल की लिखित सिफारिश** अनिवार्य कर दी गई।

  o **Parliamentary approval window** was **shortened from two months to one month**.

    संसदीय अनुमोदन की समय सीमा दो महीने से घटाकर एक महीना कर दी गई।

  o Articles **20 and 21** cannot be **suspended** during a national emergency.

    अनुच्छेद 20 और 21 को राष्ट्रीय आपातकाल के दौरान निलंबित नहीं किया जा सकता।

  o **Judicial review** of the President's satisfaction in proclaiming an emergency was **restored**.

    राष्ट्रपति की संतुष्टि की न्यायिक समीक्षा को पुनः बहाल किया गया।

- A **"National Emergency"** has no time limit, whereas a **"Constitutional Emergency"** (Article 356) can last **up to three years**.

  "राष्ट्रीय आपातकाल" की कोई समय सीमा नहीं होती, जबकि **"संवैधानिक आपातकाल"** (अनुच्छेद 356) अधिकतम तीन वर्षों तक रह सकता है।

- **National Emergency** requires a **special majority** in Parliament, while **President's Rule** requires only a **simple majority**.

  राष्ट्रीय आपातकाल के लिए **विशेष बहुमत** की आवश्यकता होती है, जबकि **राष्ट्रपति शासन** के लिए **साधारण बहुमत** ही पर्याप्त होता है।

- During a **National Emergency**, the **State executive and legislature continue to function**, but under **President's Rule**, the **State executive is dismissed**, and the **legislature is suspended or dissolved**.

  राष्ट्रीय आपातकाल के दौरान राज्य की कार्यकारी और विधायिका कार्य करती रहती है, लेकिन

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राष्ट्रपति शासन के दौरान राज्य की कार्यकारी को बर्खास्त कर दिया जाता है, और विधानसभा को निलंबित या भंग कर दिया जाता है।

- In Manipur, the **Assembly is under "suspended animation"**, meaning it is temporarily **paused** but can be **revived** if **political stability** is restored.

  मणिपुर में, **विधानसभा "स्थगित स्थिति" में रखी गई है**, जिसका अर्थ है कि यह अस्थायी रूप से **रुकी हुई है**, लेकिन यदि **राजनीतिक स्थिरता** बहाल होती है तो इसे **फिर से सक्रिय** किया जा सकता है।

Impact on Fundamental Rights

मौलिक अधिकारों पर प्रभाव

- **President's Rule does not affect fundamental rights**, but during a **National Emergency**, **Article 19** freedoms become **inoperative**, and the **President may suspend other fundamental rights** except **Articles 20 and 21**.

  राष्ट्रपति शासन मौलिक अधिकारों को प्रभावित नहीं करता, लेकिन **राष्ट्रीय आपातकाल** के दौरान अनुच्छेद 19 के तहत स्वतंत्रताएँ अमान्य हो जाती हैं, और **राष्ट्रपति** अन्य मौलिक अधिकारों को निलंबित कर सकते हैं, अनुच्छेद 20 और 21 को छोड़कर।

- Under **President's Rule**, the **Governor administers the State on behalf of the President** with assistance from the **Chief Secretary or advisers appointed by the President**.

  राष्ट्रपति शासन के तहत, राज्यपाल राष्ट्रपति की ओर से राज्य का प्रशासन करते हैं, और मुख्य सचिव या राष्ट्रपति द्वारा नियुक्त सलाहकार उनकी सहायता करते हैं।

Frequency of President's Rule

राष्ट्रपति शासन की आवृत्ति

- Since **1950**, **President's Rule has been imposed nearly 134 times across 29 States and Union Territories**.

  1950 से, राष्ट्रपति शासन लगभग 134 बार 29 राज्यों और केंद्रशासित प्रदेशों में लागू किया गया है।

- **First imposition** was in **Punjab in June 1951**.

  पहली बार जून 1951 में पंजाब में लगाया गया था।

- **Manipur (11 times) and Uttar Pradesh (10 times)** have had the most frequent impositions.

  मणिपुर (11 बार) और उत्तर प्रदेश (10 बार) में राष्ट्रपति शासन सबसे अधिक बार लगाया गया।

- **Jammu & Kashmir** has had the **longest cumulative duration** of President's Rule for **over 12 years (4,668 days)**.

  जम्मू और कश्मीर में राष्ट्रपति शासन की सबसे लंबी अवधि 12 वर्षों (4,668 दिन) से अधिक रही है।

Supreme Court's View on President's Rule

राष्ट्रपति शासन पर सर्वोच्च न्यायालय का दृष्टिकोण

- The **S.R. Bommai vs Union of India (1994)** judgment redefined these powers, stating that **Article 356 should be used only as a last resort**.

  S.R. बोम्मई बनाम भारत संघ (1994) के फैसले ने इन शक्तियों को पुनः परिभाषित किया और कहा कि **अनुच्छेद 356 का उपयोग केवल अंतिम उपाय के रूप में किया जाना चाहिए।**

- The **President's power is conditional, not absolute**, and any proclamation is **subject to judicial review**.

  राष्ट्रपति की शक्ति सशर्त होती है, निरपेक्ष नहीं, और कोई भी उद्घोषणा **न्यायिक समीक्षा के अधीन होती है।**

How have Big Tech companies back-tracked on their DEI goals?

Why were Diversity, Equity, and Inclusion programmes initiated in the first place? Why have many tech giants suddenly decided to put an end to their respective DEI initiatives? Do such programmes facilitate remote working for persons with disabilities?

GS Paper II: Policies of developed countries

Sahana Venugopal

The story so far:

When U.S. President Donald Trump returned to the White House, million-dollar donations poured in from Big Tech companies and their CEOs. During Mr. Trump's inauguration, some prominent figures included his adviser and major donor Elon Musk, Meta CEO Mark Zuckerberg. Amazon founder Jeff Bezos, Apple CEO Tim Cook, OpenAI CEO Sam Altman, and TikTok CEO Shou Zi Chew. As Trump settled into his role for the second time, notable U.S. companies including Google, Meta, and Amazon announced (or quietly made) changes to their existing DEI initiatives. They either rolled back ongoing programmes and goals, or decided to stop pursuing new DEI plans.

What is DEI?

Diversity, Equity, and Inclusion (DEI) refers to a wide range of principles and practices aimed at enriching a space by making sure all groups of people are represented (diversity), provided with measures to ensure equality by repairing past harms (equity), and given the support they need to thrive alongside their peers (inclusion). DEI reminds employers and employees alike that workplaces of the past often lacked equal rights for all or excluded talented individuals due to factors such as sexism, racism, religious hate, casteism, ableism (discrimination against people with disabilities), queerphobia, or other forms of bigotry.

In the U.S., the 2020 murder of George Floyd by a white police officer triggered nationwide outrage and a need to reflect on the inequality affecting Black people across all levels of society. However, some tech companies championed global diversity efforts long before 2020.

DEI schemes such as hiring diverse individuals, funding their training, or reserving specific opportunities for them are meant to improve the representation of different communities in the workplace, so that a company's products and services can better reflect their general buyers or users.

Why do people oppose DEI?

Critics of DEI initiatives come from a range of political backgrounds. While some believe that corporate DEI measures are band-aids on a bullet wound that fail to address systemic injustice, others are convinced that DEI hiring processes unfairly reject talented individuals from majority groups.

Mr. Musk, for example, is a vocal critic of DEI. He has frequently used the phrase as a slur as he claims that DEI kills art, promotes racism across industries, and even puts unqualified people in critical/life-saving positions. "DEI means people DIE," he has posted on X in January, despite recently expressing his strong support for the H1B visa category.

Which tech companies are getting rid of DEI measures?

Support for DEI initiatives is frequently perceived as a left-wing or even communist stance, which has alienated many leaders or institutions trying to closely align themselves with U.S. President Donald Trump's right-wing government. Mr. Trump in fact issued an executive order titled, 'Ending Radical And Wasteful Government DEI Programs And Preferencing,' where DEI initiatives were referred to as "illegal and immoral discrimination programs."

Amazon is stopping diversity and inclusion programmes, while a senior executive said that the company still wanted to "foster a more truly inclusive culture," reported Bloomberg. The e-commerce giant noted on its website that it was still supporting its employee-led groups, such as 'Amazon People with Disabilities,' 'Black Employee Network,', and 'Glamazon' for all those interested in LGBT+ issues.

Meanwhile, Meta has scrapped its fact-checking programme, and loosened limits around sensitive topics such as gender/immigration while Mr. Zuckerberg has publicly complained about a lack of 'masculine energy' in the workplace. Meta is also getting rid of DEI programmes for employees and diversity efforts for suppliers, apart from ending representation goals for women and ethnic minorities, reported Axios, citing an internal memo. "Instead of equity and

inclusion training programs, we will build programs that focus on how to apply fair and consistent practices that mitigate bias for all, no matter your background," said Meta's memo, per Axios.

For its part, Google is no longer working to meet its diversity hiring goals, even though Alphabet CEO Sundar Pichai previously committed to hiring more leaders from underrepresented communities, reported WSJ. The news outlet also noted that Alphabet's annual report left out a line about its DEI commitments. Furthermore, Google's Calendar removed references to Pride Month and Black History Month, noting that users could add these in if they specifically wanted to.

Other tech companies that have edited their DEI policies, or their wording, include Disney, Comcast, GE, Intel, PayPal, and Regeneron, according to NPR.

Which companies still support DEI?

Despite Apple CEO Tim Cook's attendance at Mr. Trump's inauguration, Apple in its 2025 annual meeting notice strongly criticised a think tank's potential proposal to "consider abolishing its Inclusion & Diversity program, policies, department and goals." Apple called the proposal unnecessary and said it was an equal opportunity employer. "The proposal also inappropriately attempts to restrict Apple's ability to manage its own ordinary business operations, people and teams, and business strategies," said the iPhone-maker.

Meanwhile, McKinsey's Global Managing Partner Bob Sternfels stated in an employee memo in February that the consulting firm would continue to pursue diversity as well as a system that rewards merit. "The answer is yes. We will continue to boldly pursue both, because these two things together – our diverse meritocracy – is what makes us distinctive and has defined who we are over our nearly 100 years," he was quoted as writing, per Bloomberg.

Other companies that have committed to DEI in spite of popular pressure against it, include Costco, Microsoft, and Pinterest.

"We continue to believe it's the business of Microsoft to be diverse and

inclusive so we can build products, services, and a workforce that empowers the world. The business case for D&I is not only constant but stronger than ever," wrote Microsoft's Chief Diversity Officer and Corporate Vice President of Talent and Learning, Lindsay-Rae McIntyre, on December 20, 2024, in a LinkedIn post.

What does DEI in tech look like?

Countless tech workers – and their families, by extension – receive numerous benefits from DEI measures already in place at their work. These benefits include visa sponsorship for foreign job applicants (which Mr. Musk himself supports), company cafeteria menus that cater to a range of diet restrictions, wheelchair-friendly elevators and toilets, hybrid work mode for caretakers/parents, remote work options for people with disabilities or medical conditions, and even corporate protection from inappropriate questions about one's body, religious beliefs, sexual orientation, or marital status.

DEI measures are meant to protect Alphabet CEO Sundar Pichai from racism, Meta CEO Mark Zuckerberg from antisemitism, and OpenAI CEO Sam Altman from queerphobia and antisemitism, not to mention their employees.

On the flip side, DEI does not guarantee a workplace where everyone feels equally respected or protected. For example, many companies which commit to DEI hiring principles on paper, may automatically turn down immigrants or refugees who need visas.

Furthermore, sweeping DEI measures in one location may fail to take into consideration lesser-known forms of discrimination present in other cultures, such as colourism or casteism. The presence of DEI programmes can also lead to meritorious women, ethnic minority workers, or LGBTQIA+ employees facing more discrimination as others assume they were hired due to their identities, rather than their skills.

While numerous debates rage around DEI in the U.S., what is certain is that a tenuous tech market is set to become even more unstable in the future for those who do not fall neatly into the majority.

Big Tech Companies Backtrack on DEI Goals

बिग टेक कंपनियां अपने DEI लक्ष्यों से पीछे हट गईं

Diversity, Equity, and Inclusion (DEI) refers to a wide range of principles and practices aimed at enriching a space by making sure all groups of people are represented (diversity), provided with measures to ensure equality by repairing past harms (equity), and given the support they need to thrive alongside their peers (inclusion).

डायवर्सिटी, इक्विटी, और इनक्लूजन (DEI) विभिन्न सिद्धांतों और प्रथाओं का एक विस्तृत समूह है जिसका उद्देश्य सभी समूहों के लोगों का प्रतिनिधित्व सुनिश्चित करना (डायवर्सिटी), समानता सुनिश्चित करने के लिए पिछले नुकसान को सुधारने के उपाय प्रदान करना (इक्विटी), और उन्हें अपने साथियों के साथ फलने-फूलने के लिए आवश्यक समर्थन देना (इनक्लूजन) है।

- DEI programs were initiated to improve representation in the workplace, so that a company's products and services can better reflect their general buyers or users.
  DEI कार्यक्रमों की शुरुआत कार्यस्थल में प्रतिनिधित्व को सुधारने के लिए की गई थी, ताकि एक कंपनी के उत्पाद और सेवाएँ उनके सामान्य खरीदारों या उपयोगकर्ताओं को बेहतर तरीके से दर्शा सकें।
- The murder of **George Floyd** in **2020** triggered nationwide outrage, leading companies to reflect on the inequality affecting Black people.
  2020 में **जॉर्ज फ्लॉयड** की हत्या ने पूरे देश में आक्रोश को जन्म दिया, जिससे कंपनियों को काले लोगों को प्रभावित करने वाली असमानता पर विचार करने के लिए प्रेरित किया।
- Many companies, like **Google**, **Meta**, and **Amazon**, started or reinforced DEI programs to enhance diversity and inclusivity.
  कई कंपनियाँ, जैसे **गूगल**, **मेटा**, और **अमेज़न**, ने विविधता और समावेशिता को बढ़ावा देने के लिए DEI कार्यक्रम शुरू किए या मजबूत किए।

Why do people oppose DEI?
लोग DEI का विरोध क्यों करते हैं?

- Critics argue that DEI measures are ineffective and fail to address systemic injustice, while others believe DEI hiring processes unfairly reject qualified individuals from majority groups.
  आलोचकों का कहना है कि DEI उपाय अप्रभावी हैं और प्रणालीगत अन्याय को संबोधित करने में

विफल रहते हैं, जबकि कुछ का मानना है कि DEI भर्ती प्रक्रियाएँ अधिकांश समूहों से योग्य व्यक्तियों को अनुचित तरीके से अस्वीकार करती हैं।

- **Elon Musk** is a vocal critic of DEI, claiming that it kills art, promotes racism, and even puts unqualified people in critical positions.
  एलोन मस्क DEI के मुखर आलोचक हैं, उनका कहना है कि यह कला को मारता है, नस्लवाद को बढ़ावा देता है, और यहां तक कि यह अयोग्य लोगों को महत्वपूर्ण पदों पर नियुक्त करता है।

Which tech companies are getting rid of DEI measures?
कौन सी टेक कंपनियाँ DEI उपायों को समाप्त कर रही हैं?

- **Amazon** has stopped diversity and inclusion programs but continues to support employee-led groups like 'Amazon People with Disabilities' and 'Black Employee Network.'
  अमेज़न ने विविधता और समावेशन कार्यक्रमों को रोक दिया है, लेकिन 'अमेज़न पीपल विद डिसएबिलिटीज' और 'ब्लैक कर्मचारी नेटवर्क' जैसे कर्मचारी-नेतृत्व वाले समूहों का समर्थन जारी रखा है।

- **Meta** has scrapped its fact-checking program and loosened limits around sensitive topics like gender/immigration. It has also ended DEI initiatives for employees and suppliers.
  मेटा ने अपनी फैक्ट-चेकिंग कार्यक्रम को समाप्त कर दिया है और लिंग/आप्रवासन जैसे संवेदनशील विषयों के आसपास सीमाओं को ढीला किया है। इसने कर्मचारियों और आपूर्तिकर्ताओं के लिए DEI पहलों को भी समाप्त कर दिया है।

- **Google** is no longer working to meet its diversity hiring goals, and removed references to **Pride Month** and **Black History Month** from its calendar.
  गूगल अब अपनी विविधता भर्ती लक्ष्यों को पूरा करने पर काम नहीं कर रहा है, और उसने अपने कैलेंडर से **प्राइड महीने** और **ब्लैक हिस्ट्री महीने** के संदर्भ हटा दिए हैं।

- Other companies like **Disney**, **Comcast**, **GE**, **Intel**, **PayPal**, and **Regeneron** have also modified or edited their DEI policies.
  अन्य कंपनियाँ जैसे **डिज़नी**, **कॉमकास्ट**, **GE**, **इंटेल**, **पेपल**, और **रेजेरॉन** ने भी अपनी DEI नीतियों को संशोधित या संपादित किया है।

Which companies still support DEI?
कौन सी कंपनियाँ अभी भी DEI का समर्थन करती हैं?

- **Apple** criticized a think tank's potential proposal to abolish its Inclusion & Diversity program, calling it unnecessary and reaffirming its status as an equal opportunity employer.
  एप्पल ने एक थिंक टैंक के प्रस्ताव की आलोचना की, जिसमें इसके इन्क्लूजन और डाइवर्सिटी

प्रोग्राम को समाप्त करने का सुझाव दिया गया था, इसे अनावश्यक बताया और अपने समान अवसर नियोक्ता होने की स्थिति को फिर से पुष्टि की।

- **McKinsey's Global Managing Partner**, **Bob Sternfels**, announced in February that the company would continue to pursue diversity alongside a system that rewards merit.

  मैकिंजी के ग्लोबल मैनेजिंग पार्टनर, **बॉब स्टर्नफेल्स**, ने फरवरी में घोषणा की कि कंपनी विविधता को एक ऐसे सिस्टम के साथ आगे बढ़ाती रहेगी जो merit को पुरस्कृत करता है।

- **Costco**, **Microsoft**, and **Pinterest** are other companies that continue to commit to DEI despite popular pressure against it.

  कोस्टको, **माइक्रोसॉफ्ट**, और **पिंटरेस्ट** अन्य कंपनियाँ हैं जो इसके खिलाफ जन दबाव के बावजूद DEI को अपनाती हैं।

- **Microsoft's Chief Diversity Officer**, **Lindsay-Rae McIntyre**, wrote in a LinkedIn post on December 20, 2024, that the business case for diversity and inclusion is stronger than ever.

  माइक्रोसॉफ्ट की चीफ डाइवर्सिटी ऑफिसर, **लिंडसे-रे मैकइंटायर**, ने 20 दिसंबर 2024 को एक लिंक्डइन पोस्ट में लिखा कि विविधता और समावेशन के लिए व्यापारिक कारण पहले से कहीं अधिक मजबूत हैं।

What does DEI in tech look like?
टेक में DEI कैसा दिखता है?

- DEI measures provide benefits such as visa sponsorship for foreign applicants, company cafeteria menus catering to various diet restrictions, wheelchair-friendly facilities, hybrid work for caretakers/parents, remote work options for those with disabilities or medical conditions, and protection against inappropriate questions.

  DEI उपाय विभिन्न लाभ प्रदान करते हैं जैसे विदेशी आवेदकों के लिए वीजा प्रायोजन, कंपनी कैफेटेरिया मेनू जो विभिन्न आहार प्रतिबंधों का ध्यान रखते हैं, व्हीलचेयर-फ्रेंडली सुविधाएँ, देखभाल करने वालों/माता-पिता के लिए हाइब्रिड कार्य, विकलांगताओं या चिकित्सा स्थितियों वाले लोगों के लिए रिमोट काम के विकल्प और अनुपयुक्त सवालों से सुरक्षा।

- DEI measures protect individuals such as **Alphabet CEO Sundar Pichai**, **Meta CEO Mark Zuckerberg**, and **OpenAI CEO Sam Altman** from discrimination based on race, religion, and sexual orientation.

  DEI उपाय व्यक्तियों को सुरक्षा प्रदान करते हैं जैसे **अल्फाबेट के सीईओ सुंदर पिचाई**, **मेटा के सीईओ मार्क जुकरबर्ग**, और **ओपनएआई के सीईओ सैम ऑल्टमैन** को नस्ल, धर्म, और यौन अभिविन्यास के आधार पर भेदभाव से।

- However, DEI does not guarantee a workplace where everyone feels equally respected, and some companies may reject immigrants or refugees needing visas.

  हालाँकि, DEI यह सुनिश्चित नहीं करता कि कार्यस्थल में हर कोई समान रूप से सम्मानित

महसूस करता है, और कुछ कंपनियाँ वीजा की आवश्यकता वाले आप्रवासियों या शरणार्थियों को स्वीकृति नहीं देतीं।

- DEI measures in one location may fail to address forms of discrimination like colorism or casteism, and can sometimes lead to discrimination against meritorious employees from marginalized groups.

  एक स्थान पर DEI उपाय रंगभेद या जातिवाद जैसे भेदभाव के रूपों को संबोधित करने में विफल हो सकते हैं, और कभी-कभी हाशिए पर पड़े समूहों के योग्य कर्मचारियों के खिलाफ भेदभाव हो सकता है।

- As debates continue in the U.S., the future of DEI in the tech market remains uncertain, especially for those who do not fit into majority groups.

  जैसे-जैसे यू.एस. में बहस जारी है, टेक मार्केट में DEI का भविष्य अनिश्चित बना हुआ है, खासकर उनके लिए जो बहुसंख्यक समूहों में नहीं आते।

Ahead of Emir's visit, calls grow for former Navy official's return

GS Paper II: India-Qatar

Strategic visit: Sheikh Tamim bin Hamad al-Thani with Narendra Modi during their meeting in Doha on February 15, 2024. AFP

Kallol Bhattacherjee
NEW DELHI

A day before the arrival of the Qatari Emir to India for an important visit, the seven former Indian Navy officials who returned last year after being imprisoned for nearly 18 months in Doha, have called for the repatriation of the last remaining Indian who is stuck in the Gulf sheikhdom.

Sheikh Tamim Bin Hamad Al Thani is scheduled to reach New Delhi on Monday ahead of an important summit of five Arab States in Saudi Arabia's capital Riyadh where U.S. President Donald Trump's Gaza formula will be in focus as Qatar continues to play an important role in the Israel-Palestine crisis.

"As India awaits the arrival of HH the Amir of Qatar on his State visit, we look forward to a constructive deliberation to facilitate the return of our colleague, viz, Cdr Purnendu Tiwary from Qatar. This would help bring in closure while aiding a reunion of Cdr Purnendu Tiwary with his family and especially with his aged mother," a statement issued by the seven former Naval officers stated on Sunday.

The ordeal of the eight former Indian Navy officials began in August 2022 when Qatari authorities arrested them. Neither India nor Qatar revealed the precise charges against them who were employed with Dahra Global, a company that specialised in supplying defence and security-related items to the Government of Qatar.

Subsequently, the men were given death sentences in October 2023. The Ministry of External Affairs (MEA) had described the death penalty as "deeply shocking" and subsequently appealed for reconsideration.

Qatar granted consular access to the men and in December 2023, the death sentence was commuted to imprisonment of varying timespan. Captain Navtej Singh Gill, Captain Saurabh Vasisht, Captain Birendra Kumar Verma, Commander Sugunakar Pakala, Commander Sanjeev Gupta, Commander Amit Nagpal, and Sailor Ragesh returned in February 2024, just days before Prime Minister Narendra Modi paid a visit to Qatar. The eighth person, Commander Purnendu Tiwary, remained in Doha.

Sheikh Tamim's India visit comes against the backdrop of growing energy trade between India and Qatar and strong people-to-people relations.

Ahead of Emir's visit, calls grow for former Navy official's return
अमीर की यात्रा से पहले, पूर्व नौसैनिक अधिकारी की वापसी के लिए आवाज़ें बढ़ी

A day before the arrival of the Qatari Emir to India for an important visit, seven former Indian Navy officials who were imprisoned for 18 months in Doha called for the repatriation of the last remaining Indian, Commander Purnendu Tiwary, who is still stuck in Qatar.

क़तरी अमीर के भारत आने से एक दिन पहले, उन सात पूर्व भारतीय नौसैनिक अधिकारियों ने, जो 18 महीने तक दोहा में बंदी रहे थे, अंतिम बचे हुए भारतीय कमान्डर पूर्णेंदु तिवारी की वापसी की मांग की, जो अभी भी क़तर में फंसे हुए हैं।

• **Sheikh Tamim Bin Hamad Al Thani** is scheduled to reach **New Delhi on Monday** ahead of an important summit of five Arab States in **Riyadh**, Saudi Arabia. The summit will focus on **U.S. President Donald Trump's Gaza formula** as Qatar continues to play an important role in the **Israel-Palestine crisis**.

शेख तमीम बिन हमद अल थानी सोमवार को नई दिल्ली पहुंचने वाले हैं, इसके बाद रियाद, सऊदी अरब में पांच अरब देशों का महत्वपूर्ण सम्मेलन होगा। सम्मेलन में अमेरिकी राष्ट्रपति डोनाल्ड ट्रम्प का गाजा फार्मूला चर्चा का केंद्र होगा क्योंकि क़तर इज़राइल-फिलिस्तीन संकट में महत्वपूर्ण भूमिका निभाता है।

• As India awaits the arrival of **HH the Amir of Qatar** on his **State visit**, the seven former Navy officials look forward to a constructive deliberation to facilitate the return of their colleague, **Commander Purnendu Tiwary** from Qatar, which would help reunite him with his family, especially his aged mother.

भारत क़तर के अमीर की राजकीय यात्रा के आगमन का इंतजार कर रहा है, सात पूर्व नौसैनिक अधिकारी अपने सहकर्मी कमान्डर पूर्णेंदु तिवारी की क़तर

से वापसी के लिए सकारात्मक चर्चा की उम्मीद करते हैं, जिससे उन्हें अपने परिवार, विशेष रूप से अपनी वृद्ध माँ से मिलन में मदद मिलेगी।

- The ordeal of the eight former Indian Navy officials began in **August 2022** when Qatari authorities arrested them. They were employed with **Dahra Global**, a company that supplied defence and security-related items to the **Government of Qatar**.

  आठ पूर्व भारतीय नौसैनिक अधिकारियों का कष्ट **अगस्त 2022** में शुरू हुआ, जब क़तरी अधिकारियों ने उन्हें गिरफ्तार किया। वे **दाहरा ग्लोबल** नामक कंपनी में कार्यरत थे, जो क़तर सरकार को रक्षा और सुरक्षा-संबंधी सामान आपूर्ति करती थी।

- In **October 2023**, the men were given **death sentences**. The **Ministry of External Affairs (MEA)** described the death penalty as "deeply shocking" and appealed for reconsideration.

  अक्टूबर 2023 में, उन लोगों को **मौत की सजा** दी गई। **विदेश मंत्रालय (MEA)** ने मौत की सजा को "गहरी चौंकाने वाली" बताया और पुनः विचार करने की अपील की।

- Qatar granted consular access, and in **December 2023**, the death sentence was commuted to imprisonment. **Captain Navtej Singh Gill**, **Captain Saurabh Vasisht**, **Captain Birendra Kumar Verma**, **Commander Sugunakar Pakala**, **Commander Sanjeev Gupta**, **Commander Amit Nagpal**, and **Sailor Ragesh** returned in **February 2024**, just days before **Prime Minister Narendra Modi's visit** to Qatar. The eighth person, **Commander Purnendu Tiwary**, remained in Doha.

  क़तर ने कांसुलर एक्सेस प्रदान किया, और **दिसंबर 2023** में मौत की सजा को कारावास में बदल दिया गया। **कैप्टन नवतेज सिंह गिल**, **कैप्टन सौरभ वसीष्ट**, **कैप्टन बिरेन्द्र कुमार वर्मा**, **कमान्डर सुगुनाकर पाकाला**, **कमान्डर संजीव गुप्ता**, **कमान्डर अमित नागपाल**, और **सेलर रागेश फरवरी 2024** में क़तर की प्रधानमंत्री नरेंद्र मोदी की यात्रा से कुछ दिन पहले लौटे। आठवां व्यक्ति, **कमान्डर पूर्णेंदु तिवारी**, दोहा में ही रहा।

- Sheikh Tamim's visit to India is set against the backdrop of growing **energy trade** between **India** and **Qatar**, along with strong **people-to-people relations**.

  शेख तमीम की भारत यात्रा **भारत** और **क़तर** के बीच बढ़ते **ऊर्जा व्यापार** और मजबूत **जनता से जनता के रिश्तों** के संदर्भ में है।

Indian Ocean Region is witnessing a sharp churning, says Jaishankar

GS Paper II: Indian Ocean Region

Suhasini Haidar
MUSCAT

External Affairs Minister S. Jaishankar spoke to Bangladesh Foreign Affairs Adviser Touhid Hossain in Muscat on Sunday, in a meeting aimed at defusing tensions and addressing "challenges" between New Delhi and Dhaka over attacks on minorities and the continued stay of former Prime Minister Sheikh Hasina in India.

Mr. Jaishankar, who was attending the eighth Indian Ocean Conference, warned of a "churning" in the region. He met his counterparts from a number of countries, including Foreign Ministers Arzu Deuba Rana of Nepal, D.N. Dhungyel of Bhutan, Vijitha Herath of Sri Lanka, Abdulla Khaleel of the Maldives, and Abbas Araghchi of Iran, those of Mauritius and Brunei, and his Omani co-host Syed Badr Hamad Al Busaidi.

In a statement, the Bangladesh Ministry of Foreign Affairs said the two leaders had noted that a number of regular bilateral exchanges had been held between the two countries in the past few months and a meeting of border guards is expected this week.

"The [Foreign Ministers] hoped that various border-related issues

Regional ties: External Affairs Minister S. Jaishankar with his counterparts during the 8th Indian Ocean Conference in Muscat. ANI

would be discussed and resolved during the meeting. Both sides recognised the challenges the two neighbours are facing in terms of bilateral relations and discussed about the necessity to work together to address those," the statement said.

Mr. Jaishankar, who last met Mr. Hossain in September 2024 on the sidelines of the UN General Assembly, said the "conversation was focused on [the India-Bangladesh] bilateral relationship, as also on BIMSTEC [Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation]".

The reference to BIMSTEC is significant as the next summit of the regional grouping will be held in Bangkok on April 2-4, and Prime Minister Narendra

Modi and Bangladesh Chief Adviser Muhammad Yunus are expected to attend.

'Coordinated flotilla'
Addressing the IOC's inaugural session, which included Ministers of more than 25 countries, and is co-hosted by the Ministry of External Affairs this year with the Oman Ministry of Foreign Affairs and organised by India Foundation, Mr. Jaishankar said the Indian Ocean was witnessing a "sharp churning" due to developments in West Asia and the Indo-Pacific, calling for a "coordinated flotilla" to develop the region.

"In the Middle East/ West Asia, there is a serious conflict under way with the potential for further escalation and complication," he said. "At the same time, longstand-

ing issues are being revisited, sometimes with a radically different approach," he added, in an oblique reference to U.S. President Donald Trump's statements on Gaza, where he has proposed moving nearly two million Gazans to Egypt and Jordan, and the U.S. taking charge of redeveloping the area that has been bombarded by Israel.

The proposal has been rejected by most countries in the Gulf region, including Oman.

Speaking in another session, Iran Foreign Minister Abbas Araghchi took aim at the U.S. over Mr. Trump's recent executive orders to impose "maximum pressure" on Iran and reviewing all sanctions waivers, including the waiver for Chabahar port.

In his speech, Mr. Jaishankar said India had a number of initiatives to help promote cooperation in the Indian Ocean region, citing India's $4-billion package for Sri Lanka, and vaccine donations, while being a "first responder" during natural disasters such as earthquakes, oil spills and other crises in the IOR.

After a meeting with the Sri Lankan Minister, Mr. Jaishankar said India ws "committed to the economic recovery and progress of Sri Lanka".

Indian Ocean Region is witnessing a sharp churning, says Jaishankar

भारतीय महासागर क्षेत्र में तेज़ हलचल हो रही है, जयशंकर का कहना है

External Affairs Minister S. Jaishankar spoke to Bangladesh Foreign Affairs Adviser Touhid Hossain in Muscat on Sunday, in a meeting aimed at defusing tensions and addressing challenges between New Delhi and Dhaka over attacks on minorities and the continued stay of former Prime Minister Sheikh Hasina in India.

विदेश मंत्रालय के मंत्री एस. जयशंकर ने रविवार को मस्कट में बांग्लादेश के विदेश मामलों के सलाहकार तौहीद हुसैन से मुलाकात की, जो नई दिल्ली और ढाका के बीच अल्पसंख्यकों पर हमलों और पूर्व प्रधानमंत्री शेख हसीना की भारत में लगातार उपस्थिति को लेकर तनाव कम करने और चुनौतियों का समाधान करने के लिए थी।

- Mr. Jaishankar, who was attending the **eighth Indian Ocean Conference**, warned of a "**churning**" in the region. He met with counterparts from several countries, including Foreign Ministers **Arzu Deuba Rana** of **Nepal**, **D.N. Dhungyel** of **Bhutan**, **Vijitha Herath** of **Sri Lanka**, **Abdulla Khaleel** of the **Maldives**, **Abbas Araghchi** of **Iran**, along with officials from **Mauritius**, **Brunei**, and his Omani co-host **Syed Badr Hamad Al Busaidi**.

  जयशंकर साहब, जो **आठवें भारतीय महासागर सम्मेलन** में भाग ले रहे थे, ने क्षेत्र में एक "**हलचल**" की चेतावनी दी। उन्होंने कई देशों के समकक्ष मंत्रियों से मुलाकात की, जिनमें **नेपाल** के **अरज़ू देउबा राना**, **भूटान** के **डी.एन. ढुंग्याल**, **श्रीलंका** के **विजिता हरथ**, **मालदीव** के **अब्दुल्ला खलील**, **ईरान** के **अब्बास अराघची** सहित **मॉरीशस**, **ब्रुनेई** और उनके ओमानी सह-मेजबान **सैयद बदर हमद अल बुसैदी** शामिल हैं।

- The Bangladesh Ministry of Foreign Affairs stated that the two leaders noted the regular **bilateral exchanges** between the two countries in recent months and that a **meeting of border guards** is expected this week.

  बांग्लादेश विदेश मंत्रालय ने कहा कि दोनों नेताओं ने हाल के महीनों में दोनों देशों के बीच नियमित **द्विपक्षीय आदान-प्रदान** का उल्लेख किया और इस सप्ताह **सीमा सुरक्षा बलों की बैठक** की उम्मीद जताई।

- The Foreign Ministers hoped that **border-related issues** would be discussed and resolved during the meeting. Both sides recognized the challenges in **bilateral relations** and discussed the necessity of working together to address these.

  विदेश मंत्रियों ने उम्मीद जताई कि **सीमा-संबंधी मुद्दों** पर बैठक में चर्चा और समाधान किया

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जाएगा। दोनों पक्षों ने **द्विपक्षीय संबंधों** में चुनौतियों को पहचाना और इनका समाधान करने के लिए एक साथ काम करने की आवश्यकता पर चर्चा की।

- Mr. Jaishankar, who last met Mr. Hossain in **September 2024** on the sidelines of the **UN General Assembly**, said the conversation was focused on **India-Bangladesh bilateral relationship** and also on **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)**.

    जयशंकर साहब, जो **सितंबर 2024** में **यूएन महासभा** के दौरान **तौहीद हुसैन** से आखिरी बार मिले थे, ने कहा कि बातचीत **भारत-बांग्लादेश द्विपक्षीय संबंधों** और **बीआईएमएसटीईसी (बंगाल की खाड़ी पहल बहुआयामी तकनीकी और आर्थिक सहयोग)** पर केंद्रित थी।

- The reference to **BIMSTEC** is significant as the next summit of the regional grouping will be held in **Bangkok** on **April 2-4**, with **Prime Minister Narendra Modi** and **Bangladesh Chief Adviser Muhammad Yunus** expected to attend.

    बीआईएमएसटीईसी का उल्लेख महत्वपूर्ण है क्योंकि क्षेत्रीय समूह की अगली **समिट बैंकॉक** में 2-4 **अप्रैल** को आयोजित की जाएगी, जिसमें **प्रधानमंत्री नरेंद्र मोदी** और **बांग्लादेश के मुख्य सलाहकार मुहम्मद युनूस** के उपस्थित होने की उम्मीद है।

- Addressing the IOC's inaugural session, Mr. Jaishankar said the Indian Ocean was witnessing a "sharp churning" due to developments in **West Asia** and the **Indo-Pacific**, calling for a "coordinated flotilla" to develop the region.

    आईओसी के उद्घाटन सत्र को संबोधित करते हुए, **जयशंकर साहब** ने कहा कि भारतीय महासागर में **पश्चिम एशिया** और **इंडो-पैसिफिक** में हो रहे घटनाक्रमों के कारण "तेज़ हलचल" हो रही है, और उन्होंने क्षेत्र के विकास के लिए "संगठित बेड़ा" बनाने की आवश्यकता बताई।

- He stated that in the **Middle East/West Asia**, there is a serious conflict ongoing with the potential for further escalation, with longstanding issues being revisited, sometimes with a radically different approach.

    उन्होंने कहा कि **मध्य-पूर्व/पश्चिम एशिया** में गंभीर संघर्ष चल रहा है, जिसमें आगे बढ़ने और जटिलताओं के बढ़ने की संभावना है, जबकि लंबे समय से चल रहे मुद्दों पर पुनः विचार किया जा रहा है, कभी-कभी एक बिलकुल नए दृष्टिकोण से।

- Mr. Jaishankar also made an indirect reference to **U.S. President Donald Trump's statements** on **Gaza**, proposing the relocation of nearly **two million Gazans** to **Egypt** and **Jordan**, and the U.S. redeveloping the bombarded area.

    जयशंकर साहब ने **अमेरिकी राष्ट्रपति डोनाल्ड ट्रम्प** के **गाजा** पर बयान का अप्रत्यक्ष रूप से संदर्भ दिया, जिसमें उन्होंने **करीब दो मिलियन गज़ा** वासियों को **मिस्र** और **जॉर्डन** में स्थानांतरित करने और **यूएस** द्वारा बमबारी किए गए क्षेत्र का पुनर्निर्माण करने का प्रस्ताव दिया था।

- The proposal was rejected by most countries in the **Gulf region**, including **Oman**.

    इस प्रस्ताव को **गुल्फ क्षेत्र** के अधिकांश देशों ने, जिनमें **ओमानी** भी शामिल हैं, खारिज कर दिया।

- Speaking in another session, **Iran Foreign Minister Abbas Araghchi** criticized the U.S. over **Trump's executive orders** to impose "maximum pressure" on Iran and reviewing all sanctions waivers, including the waiver for **Chabahar port**.

    एक अन्य सत्र में बोलते हुए, **ईरान के विदेश मंत्री अब्बास अराघची** ने ट्रम्प के कार्यकारी आदेशों

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की आलोचना की, जिसमें ईरान पर "अधिकतम दबाव" डालने और सभी प्रतिबंधों की छूट की समीक्षा की जा रही थी, जिसमें **चाबहार बंदरगाह** के लिए दी गई छूट भी शामिल थी।

- Mr. Jaishankar emphasized that **India** has a number of initiatives to promote cooperation in the **Indian Ocean region**, including **India's $4-billion package for Sri Lanka** and **vaccine donations**, while also being a "first responder" during natural disasters such as earthquakes and oil spills in the IOR.

जयशंकर साहब ने कहा कि **भारत** के पास भारतीय महासागर क्षेत्र में सहयोग को बढ़ावा देने के लिए कई पहलों का हिस्सा है, जिनमें **श्रीलंका के लिए भारत का 4 बिलियन डॉलर का पैकेज** और **टीके दान** शामिल हैं, साथ ही भारतीय महासागर क्षेत्र में भूकंप और तेल फैलने जैसी प्राकृतिक आपदाओं के दौरान "पहला उत्तरदाता" होने का भी उल्लेख किया।

- After a meeting with the **Sri Lankan Minister**, Mr. Jaishankar affirmed that India is "committed to the economic recovery and progress of Sri Lanka."

श्रीलंकाई मंत्री से बैठक के बाद, **जयशंकर साहब** ने पुष्टि की कि भारत **श्रीलंका की आर्थिक पुनर्निर्माण और प्रगति** के प्रति "प्रतिबद्ध है।"

U.K. will always be India's reliable partner: Minister

U.K.'s Minister of State for Defence Vernon Coaker hails the country's new 'DP-I' programme; citing projects and joint ventures announced in Aero India, he says cooperation 'will only grow'

GS Paper II: India-UK

Dinakar Peri
BENGALURU

The United Kingdom's Minister of State for Defence, Vernon Coaker, said on Sunday that his country will be a reliable partner for India "now and in the future". He further emphasised that the new Defence Partnership, India (DP-I), a dedicated programme office within the U.K.'s Ministry of Defence, demonstrated that from the U.K.'s perspective, "we should do more with India".

At Aero India in Bengaluru last week, India and the U.K. announced a series of joint ventures in the defence domain, which he termed as practical steps in this direction.

The DP-I located in London will serve as a one-stop shop for strengthening bilateral defence collaboration between the two countries. "Co-production is the way India is looking and we want to be part of that," Mr. Coaker, responsible for international relations and diplomacy, said in a conversation with The Hindu at Aero India. "India is a sovereign

country and it will make its decisions in its best interest... My coming here is a statement by the U.K. government that we are a reliable partner both now and in the future..."

Referring to the various announcements made at the airshow as "initial numbers", the visiting Minister said the cooperation and the numbers will only grow.

At Aero India, Thales U.K. and Bharat Dynamics Limited (BDL) signed a contract for Laser Beam Riding Man-portable Air Defence Systems (LBRMs), with an initial batch of STARStreak high-velocity missiles and launchers to

be delivered to the Indian Army this year as part of the deal.

The two companies also announced a collaboration to produce Lightweight Multirole Missiles (LMMs). Further, MBDA U.K. and BDL are working on the installation of a first-of-its-kind Advanced Short-Range Air to Air Missile (ASRAAM) assembly and test facility in Hyderabad, which can also cater to exports.

Meanwhile, General Electric (GE) Vernova is developing a full-electric propulsion system for India's next generation of Land Platform Docks (LPD) and will develop a land-based

test facility in India. "That's the whole point of strengthening India's ability to develop these projects and programmes by themselves," Mr. Coaker noted. This is in partnership with Bharat Heavy Electricals Limited (BHEL), with the facility to be set up in Hyderabad to deliver the LPDs in water by 2030.

Towards this, India and the U.K. signed a Statement of Intent. These initiatives build manufacturing capability in India and fits with the overall objective of achieving self reliance, the Minister observed.

The Minister stated that Prime Minister Narendra Modi and his U.K. counterpart Keir Starmer actually agreed to refresh the comprehensive strategic partnership, referring to their meeting in November 2024 on the sidelines of the G-20 summit in Brazil, where the two leaders reaffirmed their commitment for the partnership.

The U.K. carrier strike group is set to be on deployment to the Indian Ocean this year during which it is scheduled to visit India.

Official talks: Vernon Coaker with U.K. High Commissioner Lindy Cameron at Aero India in Bengaluru. SPECIAL ARRANGEMENT

U.K. will always be India's reliable partner: Minister
ब्रिटेन हमेशा भारत का विश्वसनीय साझेदार रहेगा: मंत्री

U.K.'s Minister of State for Defence Vernon Coaker hails the country's new 'DP–I' programme; citing projects and joint ventures announced in Aero India, he says cooperation 'will only grow'

ब्रिटेन के रक्षा राज्य मंत्री वर्नन कोकर ने देश के नए 'डीपी-आई' कार्यक्रम की सराहना की; एयरो इंडिया में घोषित परियोजनाओं और संयुक्त उद्यमों का हवाला देते हुए उन्होंने कहा कि सहयोग 'केवल बढ़ेगा'

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UK-India Defence Partnership
यूके-भारत रक्षा साझेदारी

- The United Kingdom's **Minister of State for Defence**, **Vernon Coaker**, said on Sunday that his country will be a **reliable partner** for India "now and in the future".

  संयुक्त राज्य के **रक्षा राज्य मंत्री**, **वर्नन कोकर** ने रविवार को कहा कि उनका देश "अब और भविष्य में" भारत के लिए एक **विश्वसनीय साझेदार** होगा।

- He further emphasised that the new **Defence Partnership, India (DP-I)**, a dedicated programme office within the U.K.'s Ministry of Defence, demonstrated that from the U.K.'s perspective, "we should do more with India".

  उन्होंने यह भी जोर दिया कि **नया रक्षा साझेदारी कार्यक्रम, भारत (DP-I)**, जो यूके के रक्षा मंत्रालय के भीतर एक समर्पित कार्यक्रम कार्यालय है, यह दिखाता है कि यूके के दृष्टिकोण से, "हमें भारत के साथ अधिक करना चाहिए।"

- At **Aero India** in **Bengaluru** last week, India and the U.K. announced a series of **joint ventures** in the defence domain, which he termed as **practical steps** in this direction.

  पिछले हफ्ते **बैंगलोर** में **एरो इंडिया** में, भारत और यूके ने रक्षा क्षेत्र में **संयुक्त उपक्रमों** की एक श्रृंखला की घोषणा की, जिसे उन्होंने इस दिशा में **व्यावहारिक कदम** कहा।

- The **DP-I** located in **London** will serve as a **one-stop shop** for strengthening **bilateral defence collaboration** between the two countries.

  लंदन में स्थित **DP-I** दोनों देशों के बीच **द्विपक्षीय रक्षा सहयोग** को मजबूत करने के लिए **एकल स्थान** के रूप में कार्य करेगा।

- "**Co-production** is the way India is looking and we want to be part of that," Mr. Coaker, responsible for **international relations** and **diplomacy**, said in a conversation with *The Hindu* at **Aero India**.

  "**सह-निर्माण** वह तरीका है जिस पर भारत ध्यान दे रहा है और हम इसका हिस्सा बनना चाहते हैं," श्री कोकर, जो **अंतर्राष्ट्रीय संबंधों** और **कूटनीति** के लिए जिम्मेदार हैं, ने **एरो इंडिया** में *द हिन्दू* से बातचीत में कहा।

- "India is a **sovereign country** and it will make its decisions in its **best interest**... My coming here is a statement by the U.K. government that we are a **reliable partner** both now and in the future..."

  "भारत एक **संप्रभु देश** है और यह अपने **श्रेष्ठ हित** में निर्णय लेगा... यहाँ आना यूके सरकार का यह बयान है कि हम अब और भविष्य में एक **विश्वसनीय साझेदार** हैं..."

- Referring to the various announcements made at the airshow as "**initial numbers**", the visiting Minister said the **cooperation** and the numbers will only grow.

  एयरशो में किए गए विभिन्न घोषणाओं को "**प्रारंभिक आंकड़े**" बताते हुए, यात्रा करने वाले मंत्री ने कहा कि **सहयोग** और आंकड़े केवल बढ़ेंगे।

- At **Aero India**, **Thales U.K.** and **Bharat Dynamics Limited (BDL)** signed a contract for **Laser Beam Riding Man-portable Air Defence Systems (LBRMs)**, with an initial batch of **STARStreak high-velocity missiles** and launchers to be delivered to the **Indian Army** this year as part of the deal.

एरो इंडिया में, **थेल्स यूके** और **भारत डायनामिक्स लिमिटेड (BDL)** ने **लेज़र बीम राइडिंग मैन-पोर्टेबल एयर डिफेंस सिस्टम (LBRMs)** के लिए एक अनुबंध पर हस्ताक्षर किए, जिसमें **STARStreak उच्च-वेग मिसाइलों** और लांचरों का एक प्रारंभिक बैच इस वर्ष **भारतीय सेना** को सौंपा जाएगा।

- The two companies also announced a collaboration to produce **Lightweight Multirole Missiles (LMMs)**.
दोनों कंपनियों ने **लाइटवेट मल्टीरोल मिसाइलों (LMMs)** के उत्पादन के लिए एक सहयोग की घोषणा की।

- Further, **MBDA U.K.** and **BDL** are working on the installation of a first-of-its-kind **Advanced Short-Range Air to Air Missile (ASRAAM)** assembly and test facility in **Hyderabad**, which can also cater to exports.
इसके अतिरिक्त, **MBDA यूके** और **BDL हैदराबाद** में एक पहले किस्म की **एडवांस्ड शॉर्ट-रेंज एयर-टू-एयर मिसाइल (ASRAAM)** असेंबली और परीक्षण सुविधा की स्थापना पर काम कर रहे हैं, जो निर्यात के लिए भी उपयुक्त होगी।

- Meanwhile, **General Electric (GE) Vernova** is developing a **full-electric propulsion system** for India's next generation of **Land Platform Docks (LPD)** and will develop a **land-based test facility** in India.
इस बीच, **जनरल इलेक्ट्रिक (GE) वर्नोवा** भारत की अगली पीढ़ी के **लैंड प्लेटफ़ॉर्म डॉक (LPD)** के लिए **पूर्ण-इलेक्ट्रिक प्रणोदन प्रणाली** विकसित कर रहा है और भारत में एक **भूमि-आधारित परीक्षण सुविधा** विकसित करेगा।

- "That's the whole point of strengthening India's ability to develop these projects and programmes by themselves," Mr. Coaker noted.
"यही मुख्य उद्देश्य है भारत की क्षमता को इन परियोजनाओं और कार्यक्रमों को स्वयं विकसित करने में सुदृढ़ करना," श्री कोकर ने कहा।

- This is in partnership with **Bharat Heavy Electricals Limited (BHEL)**, with the facility to be set up in **Hyderabad** to deliver the **LPDs** in water by **2030**.
यह **भारत हेवी इलेक्ट्रिकल्स लिमिटेड (BHEL)** के साथ साझेदारी में है, और यह सुविधा **हैदराबाद** में स्थापित की जाएगी ताकि **LPDs** को **2030** तक जल में वितरित किया जा सके।

- Towards this, India and the U.K. signed a **Statement of Intent**.
इसके लिए, भारत और यूके ने एक **इरादे का बयान** पर हस्ताक्षर किया।

- These initiatives build **manufacturing capability** in India and fits with the overall objective of achieving **self-reliance**, the Minister observed.
इन पहलों से भारत में **निर्माण क्षमता** का निर्माण होता है और यह **आत्मनिर्भरता** प्राप्त करने के समग्र उद्देश्य के साथ मेल खाती है, मंत्री ने अवलोकन किया।

- The Minister stated that **Prime Minister Narendra Modi** and his **U.K. counterpart Keir Starmer** actually agreed to refresh the **comprehensive strategic partnership**, referring to their meeting in **November 2024** on the sidelines of the **G-20 summit in Brazil**, where the two leaders reaffirmed their commitment for the partnership.
मंत्री ने कहा कि **प्रधानमंत्री नरेंद्र मोदी** और उनके **यूके समकक्ष कीर स्टार्मर** ने वास्तव में **व्यापक**

रणनीतिक साझेदारी को फिर से ताज़ा करने पर सहमति जताई, जिसमें **नवंबर 2024** में **ब्राजील** में **G-20 शिखर सम्मेलन** के दौरान उनकी बैठक का संदर्भ दिया गया, जहाँ दोनों नेताओं ने साझेदारी के लिए अपनी प्रतिबद्धता को पुनः पुष्टि की।

- The **U.K. carrier strike group** is set to be on **deployment to the Indian Ocean** this year during which it is scheduled to visit India.

  यूके कैरियर स्ट्राइक समूह इस वर्ष **भारतीय महासागर** में **तैनात** होने के लिए तैयार है, जिसके दौरान यह भारत का दौरा करने वाला है।

TOPICS COVERED (GS Paper III: Economy, Science & Technology, Environment, Disaster Management, Internal Security)

1. **Suspected KNA cadres among 11 militants held in Manipur /** मणिपुर में 11 उग्रवादियों में संदिग्ध केएनए कैडर भी शामिल

2. **Tree-hugging protest against Pune riverfront project reignites development vs nature debate /** पुणे रिवरफ्रंट परियोजना के खिलाफ पेड़ों को गले लगाकर विरोध प्रदर्शन ने विकास बनाम प्रकृति की बहस को फिर से छेड़ दिया

3. **Bouquets, brickbats for Tharoor over his start-up comment /** थरूर की स्टार्ट-अप टिप्पणी पर उन्हें ढेरों बधाई और आलोचनाएँ

4. **The silent crisis of rat-hole mining /** रैट-होल खनन का मौन संकट

5. **Will U.S.'s F-35 stealth fighter jets fit into IAF's future plans? /** क्या अमेरिका के एफ-35 स्टील्थ लड़ाकू जेट विमान भारतीय वायुसेना की भविष्य की योजनाओं में शामिल नहीं होंगे?

6. AI-enabled cameras in Similipal Tiger Reserve send poaching plummeting / सिमिलिपाल टाइगर रिजर्व में एआई-सक्षम कैमरों से अवैध शिकार में भारी गिरावट

7. Carbon capture: a pricey fix? / कार्बन कैप्चर: एक महंगा समाधान?

Startups in India

- **I**ndia has emerged as one of the largest startup ecosystems globally, with thousands of new ventures across various sectors such as technology, healthcare, education, and finance.
- भारत दुनिया के सबसे बड़े स्टार्टअप पारिस्थितिकी तंत्रों में से एक बनकर उभरा है, जिसमें विभिन्न क्षेत्रों जैसे प्रौद्योगिकी, स्वास्थ्य देखभाल, शिक्षा और वित्त में हजारों नए उद्यम हैं।
- According to the Government of India, a startup is defined as a company that is less than 10 years old and has an annual turnover of less than ₹100 crore.
- भारत सरकार के अनुसार, एक स्टार्टअप को एक ऐसी कंपनी के रूप में परिभाषित किया जाता है जो 10 साल से कम पुरानी हो और जिसकी वार्षिक टर्नओवर ₹100 करोड़ से कम हो।

• **Unicorns**: Startups that reach a valuation of $1 billion or more are termed as unicorns.

• **यूनिकॉर्न्स**: वे स्टार्टअप्स जो $1 बिलियन या उससे अधिक के मूल्यांकन तक पहुंचते हैं, उन्हें यूनिकॉर्न कहा जाता है।

Startup Ecosystem in India: • India has over 50,000 recognized startups as of 2023, making it one of the most vibrant startup hubs in the world.

• भारत में 2023 तक 50,000 से अधिक मान्यता प्राप्त स्टार्टअप्स हैं, जो इसे दुनिया के सबसे जीवंत स्टार्टअप केंद्रों में से एक बनाते हैं।

• States like Karnataka, Maharashtra, Delhi, and Telangana have become hubs for tech startups.

• कर्नाटका, महाराष्ट्र, दिल्ली और तेलंगाना जैसे राज्य तकनीकी स्टार्टअप्स के केंद्र बन गए हैं।

Government Initiatives: • **Startup India Initiative**: Launched in January 2016, this initiative aims to build a strong ecosystem for nurturing innovation and Startups in the country.

• **स्टार्टअप इंडिया पहल**: जनवरी 2016 में शुरू की गई, यह पहल देश में नवाचार और स्टार्टअप्स को बढ़ावा देने के लिए एक मजबूत पारिस्थितिकी तंत्र बनाने का लक्ष्य रखती है।

• **Atal Innovation Mission (AIM)**: Launched by NITI Aayog to promote a culture of innovation and entrepreneurship in schools, universities, and the industry.

• **अटल इनोवेशन मिशन (AIM)**: NITI आयोग द्वारा शुरू की गई यह पहल स्कूलों, विश्वविद्यालयों और उद्योगों में नवाचार और उद्यमिता की संस्कृति को बढ़ावा देने के लिए है।

• **PM Gati Shakti National Master Plan**: This plan focuses on infrastructure development that benefits startups by providing better connectivity and logistics support.

• **पीएम गतिशक्ति राष्ट्रीय मास्टर प्लान**: यह योजना बुनियादी ढांचे के विकास पर केंद्रित है जो स्टार्टअप्स को बेहतर कनेक्टिविटी और लॉजिस्टिक्स समर्थन प्रदान करके लाभ पहुंचाती है।

Sector-wise Startups: • **Technology**: Many Indian startups in the tech sector are focused on artificial intelligence (AI), machine learning (ML), and software development.

• **प्रौद्योगिकी**: भारतीय स्टार्टअप्स की एक बड़ी संख्या प्रौद्योगिकी क्षेत्र में कृत्रिम बुद्धिमत्ता (AI), मशीन लर्निंग (ML), और सॉफ़्टवेयर विकास पर केंद्रित हैं।

• **E-commerce**: Companies like Flipkart, BigBasket, and Zomato have revolutionized online shopping, food delivery, and grocery services in India.

• **ई-कॉमर्स**: फ्लिपकार्ट, बिगबास्केट और जोमैटो जैसी कंपनियों ने भारत में ऑनलाइन शॉपिंग, फूड डिलीवरी और किराना सेवाओं में क्रांति ला दी है।

• **Fintech**: Paytm, PhonePe, and Razorpay are examples of successful fintech startups in India, offering digital payment solutions and online banking services.

• **फिनटेक**: पेटीएम, फोनपे और रेजरपे भारत में सफल फिनटेक स्टार्टअप्स के उदाहरण हैं, जो डिजिटल भुगतान समाधान और ऑनलाइन बैंकिंग सेवाएं प्रदान करते हैं।

Recent Developments and Data: • In 2022, India added over 14,000 new startups, demonstrating a steady growth rate of approximately 12-15% annually.

• 2022 में, भारत ने 14,000 से अधिक नए स्टार्टअप्स जोड़े, जो हर साल लगभग 12-15% की स्थिर वृद्धि दर को दर्शाता है।

• **2023** saw India reaching over 100 unicorns, making it the third-largest unicorn hub globally after the US and China.

• **2023** में, भारत ने 100 से अधिक यूनिकॉर्न्स को पार किया, जिससे यह दुनिया में अमेरिका और चीन के बाद तीसरा सबसे बड़ा यूनिकॉर्न केंद्र बन गया।

Challenges for Startups in India: • **Access to Funding**: Despite various government initiatives, many startups still face challenges in accessing venture capital and angel funding.

• **निधियों तक पहुंच**: विभिन्न सरकारी पहलों के बावजूद, कई स्टार्टअप्स को वेंचर कैपिटल और एंजल फंडिंग तक पहुंच प्राप्त करने में कठिनाई होती है।

• **Regulatory Hurdles**: Complex tax regulations and bureaucracy often create delays and hurdles for startups.

• **नियामक अड़चनें**: जटिल कर नियम और नौकरशाही अक्सर स्टार्टअप्स के लिए देरी और बाधाएं उत्पन्न करती हैं।

• **Talent Acquisition**: There is a high demand for skilled professionals, and retaining talent in a competitive market remains a challenge.

• **प्रतिभा अधिग्रहण**: कुशल पेशेवरों की उच्च मांग है, और एक प्रतिस्पर्धी बाजार में प्रतिभा को बनाए रखना एक चुनौती बना हुआ है।

Example of Successful Startups: • **Byju's**: Founded in 2011, Byju's has revolutionized education in India through its online learning platform, and is now a decacorn (a startup valued at over $10 billion).

• **बायजूस**: 2011 में स्थापित, बायजूस ने अपने ऑनलाइन लर्निंग प्लेटफार्म के माध्यम से भारत में शिक्षा में क्रांति ला दी है, और अब यह एक डेकाकॉर्न (एक स्टार्टअप जिसकी कीमत $10 बिलियन से अधिक हो) है।

• **OYO**: Founded in 2013, OYO is one of the fastest-growing hotel chains, using technology to offer affordable and standardized accommodation across India and globally.

• **ओयो**: 2013 में स्थापित, ओयो सबसे तेज़ी से बढ़ने वाली होटल श्रृंखलाओं में से एक है, जो भारत और वैश्विक स्तर पर किफायती और मानकीकृत आवास प्रदान करने के लिए प्रौद्योगिकी का उपयोग करता है।

Global Startup Ecosystem Report 2024 (GSER 2024)

The **Global Startup Ecosystem Report 2024 (GSER 2024)**, now in its 12th year, offers a comprehensive analysis of startup ecosystems worldwide. This report is published by Global Genome, provides insights into leading ecosystems, emerging trends, and challenges faced by entrepreneurs. It is based on extensive research, analyzing data from 4.5 million startups across 300 global ecosystems, and over a decade of independent research.

Key Global Insights:

- **Top Ecosystems:** Silicon Valley retains the top position, followed by New York City and London tied at #2. Tel Aviv has moved up to tie with Los Angeles at #4. Tokyo has made a significant leap, entering the top 10 at #10, up from #15 in the previous year. Seoul has also entered the top 10, now ranked at #9. Miami has shown impressive progress, reaching #16, an improvement of seven positions from last year. Chinese

ecosystems have seen shifts: Beijing is now at #8 (down one place), Shanghai at #11 (down two places), while Shenzhen has risen seven spots to rank #28. Paris has climbed four places to reach #14. Zurich and Munich have also improved, now at #31 and #33, respectively.

Indian Startup Ecosystems:

- **Bengaluru:** Known as the Silicon Valley of India, Bengaluru's startup ecosystem has slipped to the 21st position globally in 2024, down from 20th in 2023. The city is home to over 80% of India's global IT offices, with software exports valued at ₹6.3 lakh crore ($76 billion). It contributes to 40% of India's IT exports and has produced 43 unicorns, including companies like Zerodha, Cred, PhonePe, Flipkart, and BigBasket. Bengaluru also hosts more than 400 Global Capability Centers (GCCs), employing 1.3 million workers and contributing $33.8 billion to the economy, approximately 1% of India's GDP. Recent funding highlights include Udaan raising $340 million in December 2023 and Zetwerk securing $20.4 million in March 2024.
- **Delhi and Mumbai:** Delhi is ranked 24th, while Mumbai stands at 37th in the list of top 40 global startup ecosystems. Mumbai has emerged as India's top startup hub in 2024, overtaking Bengaluru in terms of funding. The city's startup funding surged by 154% year-on-year, from $1.5 billion in 2023 to $3.7 billion in 2024. Notable funding deals include Zepto securing $665 million, PharmEasy raising $216.2 million, and Rebel Foods obtaining $210 million. Factors contributing to Mumbai's rise include its status as India's financial capital, a diverse industry presence, and supportive government initiatives like the Maharashtra Startup Week and Startup Maharashtra Yojana.
- **Hyderabad:** Considered a competitive startup hub alongside Bengaluru, Hyderabad is ranked between 41 and 50 under the emerging ecosystem category. The city has been fostering a conducive environment for startups, attracting investments and talent across various sectors.

Factors Influencing India's Startup Ecosystem:

- **Return of Tech Professionals:** A significant number of Indian tech professionals are leaving established positions in Silicon Valley to launch startups in India. This trend, accelerated by the COVID-19 pandemic, is driven by India's growing population, increasing demand for consumer products, and rising internet adoption. Government programs like Startup India have further fueled this movement, despite challenges such as bureaucratic hurdles and infrastructure issues.
- **Government Support:** Initiatives like Startup India and state-level programs provide financial aid, mentorship, and recognition to innovative startups, creating a supportive ecosystem for entrepreneurs.

Startup India Programme

- **Startup India** is a flagship initiative launched by the Government of India on **16th January, 2016** to foster a robust ecosystem for nurturing innovation and startups across the country. The programme aims to drive economic growth and generate large-scale employment opportunities.

  स्टार्टअप इंडिया भारत सरकार द्वारा **16 जनवरी 2016** को लॉन्च की गई एक प्रमुख पहल है, जिसका उद्देश्य देश में नवाचार और स्टार्टअप्स के लिए एक मजबूत पारिस्थितिकी तंत्र का निर्माण करना है। इस कार्यक्रम का उद्देश्य आर्थिक विकास को बढ़ावा देना और बड़े पैमाने पर रोजगार के अवसर उत्पन्न करना है।

- Through this initiative, the Government aims to empower startups through innovation and design to help them grow.

  इस पहल के माध्यम से, सरकार स्टार्टअप्स को नवाचार और डिज़ाइन के जरिए सशक्त बनाने का लक्ष्य रखती है ताकि वे प्रगति कर सकें।

Key Features of Startup India

Simplification and Handholding

- **Simple Compliance Regime for Startups** based on self-certification, which reduces bureaucratic procedures and facilitates easy operation.

  स्टार्टअप्स के लिए सरल अनुपालन व्यवस्था जो आत्म-प्रमाणीकरण पर आधारित है, जिससे नौकरशाही प्रक्रियाओं को कम किया गया है और संचालन को सरल बनाया गया है।

- Launch of **Mobile App and Portal** for compliance and information exchange, providing updates and connecting stakeholders efficiently.

  मोबाइल ऐप और पोर्टल का शुभारंभ अनुपालन और सूचना आदान-प्रदान के लिए, जो अद्यतन प्रदान करता है और विभिन्न हितधारकों को प्रभावी तरीके से जोड़ता है।

- **Startup India Hub** to guide startups through various stages of their development.

  स्टार्टअप इंडिया हब स्टार्टअप्स को उनके विकास के विभिन्न चरणों में मार्गदर्शन प्रदान करता है।

- Legal support and **fast-tracking patent examination** at reduced costs, benefiting startups by easing the intellectual property process.

  कानूनी सहायता और **पेटेंट परीक्षा में तेजी लाना**, जो स्टार्टअप्स को बौद्धिक संपदा प्रक्रिया को सरल बनाकर लाभ पहुंचाता है।

- **Relaxed norms of public procurement** for startups, encouraging government departments to source products and services from startups.

  सार्वजनिक खरीद के लिए आसान मानदंड, जो सरकार के विभागों को स्टार्टअप्स से उत्पाद और सेवाएं प्राप्त करने के लिए प्रोत्साहित करता है।

- **Faster exit process** for startups, allowing them to exit the market efficiently if needed.
  स्टार्टअप्स के लिए तेज़ निकासी प्रक्रिया, जो उन्हें यदि आवश्यक हो तो बाज़ार से कुशलता से बाहर निकलने की अनुमति देती है।

Funding Support and Incentives

- **Fund of Funds** with a corpus of ₹10,000 crore, which provides funding to SEBI-registered Alternative Investment Funds (AIFs), further investing in startups.
  फंड ऑफ फंड्स ₹10,000 करोड़ के कोष के साथ, जो SEBI पंजीकृत वैकल्पिक निवेश कोष (AIFs) को फंडिंग प्रदान करता है, जो फिर स्टार्टअप्स में निवेश करते हैं।
- **Credit guarantee fund** for startups, which provides assurance to financial institutions, encouraging them to extend loans to startups.
  स्टार्टअप्स के लिए क्रेडिट गारंटी फंड, जो वित्तीय संस्थानों को आश्वस्त करता है और उन्हें स्टार्टअप्स को ऋण देने के लिए प्रोत्साहित करता है।
- **Tax exemption** on capital gains invested in the Fund of Funds and a 3-year tax exemption for eligible startups.
  पूंजीगत लाभ पर कर छूट जो फंड ऑफ फंड्स में निवेश किए जाते हैं और पात्र स्टार्टअप्स के लिए 3 वर्षों की कर छूट।

Industry-Academia Partnership and Incubation

- Organizing **Startup Fests** to showcase innovations and provide a platform for collaboration among stakeholders.
  स्टार्टअप फेस्ट्स का आयोजन, ताकि नवाचारों को प्रदर्शित किया जा सके और हितधारकों के बीच सहयोग का एक मंच प्रदान किया जा सके।
- **Atal Innovation Mission (AIM)**, a government initiative to promote innovation and entrepreneurship among students, with the support of NITI Aayog.
  अटल इनोवेशन मिशन (AIM), एक सरकारी पहल है जो छात्रों के बीच नवाचार और उद्यमिता को बढ़ावा देती है, जो NITI अयोक के समर्थन से होती है।
- **Research parks** and **Technology Business Incubators (TBIs)** are set up at IITs, NITs, and IIMs to foster innovation.
  अनुसंधान पार्क और **प्रौद्योगिकी व्यवसाय इन्क्यूबेटर्स (TBIs)** IITs, NITs और IIMs में स्थापित किए गए हैं ताकि नवाचार को बढ़ावा दिया जा सके।
- **Innovation programs** for students, such as the **Annual Incubator Grand Challenge**, encouraging creative solutions and ideas.
  छात्रों के लिए नवाचार कार्यक्रम, जैसे **वार्षिक इन्क्यूबेटर ग्रांड चैलेंज**, जो रचनात्मक समाधान और विचारों को प्रोत्साहित करता है।

Credit Guarantee Fund

Address : 3rd Floor, KV Tower, Padleyganj Road, Gorakhpur
Email Id : info@patrioticias.in
Contact Number : 9971932488
Website : patrioticias.in

- Creation of a **Credit Guarantee Fund** through **SIDBI** with an annual corpus of ₹500 crore for the next four years, aiding in the growth of startups.
  SIDBI के माध्यम से **क्रेडिट गारंटी फंड** का निर्माण, जिसमें अगले चार वर्षों के लिए ₹500 करोड़ का वार्षिक कोष होगा, जो स्टार्टअप्स के विकास में मदद करेगा।

Progress on Startup India Action Plan

- Setting up **7 Research Parks** modeled on the IIT Madras Research Park across different IITs and NITs to provide infrastructure and support to startups.
  7 अनुसंधान पार्कों का निर्माण, जो IIT मद्रास अनुसंधान पार्क पर आधारित हैं, विभिन्न IITs और NITs में स्टार्टअप्स को बुनियादी ढांचा और समर्थन प्रदान करेंगे।
- **Technology Business Incubators (TBIs)** at NITs/IITs/IIMs to help startups access necessary infrastructure and mentorship.
  प्रौद्योगिकी व्यवसाय इन्क्यूबेटर्स (TBIs) NITs/IITs/IIMs में स्टार्टअप्स को आवश्यक बुनियादी ढांचा और मार्गदर्शन प्राप्त करने में मदद करेंगे।
- The creation of a **Fund of Funds** to attract private capital, which has released **₹500 crore** in FY 2015-16 and ₹600 crore in FY 2016-17 for funding innovation.
  नवाचार को वित्तीय सहायता देने के लिए **फंड ऑफ फंड्स** का निर्माण किया गया, जिसने **₹500 करोड़** FY 2015-16 में और ₹600 करोड़ FY 2016-17 में जारी किए।

MAINS PRACTICE QUESTION

Q1: Examine the effectiveness of AI and surveillance technologies in tackling wildlife poaching. **(150 words/10 Marks)**

Q2: What are the ethical concerns surrounding the implementation of AI and surveillance technologies in areas inhabited by tribal communities? **(150 words/10 Marks)**

Suspected KNA cadres among 11 militants held in Manipur

GS Paper III: Insurgency in North East

Press Trust of India
IMPHAL

Security forces have arrested 11 militants from Manipur in the past two days, including seven suspected cadres of the Kuki National Army (KNA), along with arms and ammunition, the police said on Sunday.

The "KNA cadres" were apprehended from the old Khaukual area in Churachandpur district on Friday, they said.

The KNA is a signatory to a Suspension of Operations (SoO) pact signed in 2008 among the United Peoples' Front (UPF) and the Kuki National Organisation (KNO), an umbrella of 24 insurgent groups, the Union Home Ministry, and the

Security forces have also dismantled 'illegal check posts' put in place by 'village volunteers'

Manipur government.

The Manipur government, however, withdrew from the pact in March 2023.

In another operation on Saturday at Huikap village in Imphal East district, four active members of the proscribed outfit Kangleipak Communist Party (PWG group), including two women, were arrested, the police said.

Two AK-47 rifles, pistols, live ammunition, incriminating documents and

booklets were among items recovered from their possession, they added.

Check posts cleared
Security forces have also dismantled "illegal check posts" put in place by "village volunteers" in Manipur along the Imphal-Churachandpur road, the police said. "Joint security forces dismantled volunteer check posts at Kaprang and S Kwatlian in Churachandpur District on NH-2... Security forces have taken over these locations and free movement of common vehicles is being ensured," a police officer said.

KUKI-ZO MLAs SEEK PEACE
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Suspected KNA cadres among 11 militants held in Manipur

मणिपुर में 11 उग्रवादियों में संदिग्ध केएनए कैडर भी शामिल

Security Forces Arrest 11 Militants in Manipur
मणिपुर में सुरक्षा बलों ने 11 उग्रवादियों को गिरफ्तार किया

- In the past two days, security forces arrested **11 militants** in **Manipur**, including **seven suspected cadres of the Kuki National Army (KNA)**, along with arms and ammunition.
  पिछले दो दिनों में, सुरक्षा बलों ने मणिपुर में **11 उग्रवादी** गिरफ्तार किए, जिनमें **कुकी नेशनल आर्मी (KNA)** के **सात संदिग्ध कैडर** शामिल हैं, साथ में हथियार और गोला-बारूद भी मिला।

- The KNA cadres were apprehended from the **old Khaukual area in Churachandpur district** on **Friday**.
  KNA के कैडरों को **शुक्रवार** को **चुराचंदपुर जिले के पुराने खौकुल क्षेत्र** से पकड़ा गया।

- The KNA is a signatory to a **Suspension of Operations (SoO) pact** signed in **2008** among the **United Peoples' Front (UPF)**, **Kuki National Organisation (KNO)**, an umbrella of **24 insurgent groups**, the **Union Home Ministry**, and the **Manipur government**.
  KNA **2008** में **संविधान निलंबन समझौता (SoO)** पर **संयुक्त पीपल्स फ्रंट (UPF)**, **कुकी नेशनल ऑर्गेनाइजेशन (KNO)**, जो **24 उग्रवादी समूहों** की एक छतरी है, **केंद्रीय गृह मंत्रालय** और **मणिपुर सरकार** के बीच हस्ताक्षरकर्ता है।

- The Manipur government withdrew from the pact in **March 2023**.
  मणिपुर सरकार ने **मार्च 2023** में इस समझौते से बाहर निकलने का फैसला किया।

- In another operation on **Saturday** at **Huikap village in Imphal East district**, four active members of the proscribed outfit **Kangleipak Communist Party (PWG group)**, including two women, were arrested.
  शनिवार को **इंफाल ईस्ट जिले के हुआकप गांव** में एक और ऑपरेशन में प्रतिबंधित संगठन

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कंगलेइपाक कम्युनिस्ट पार्टी (PWG समूह) के चार सक्रिय सदस्य, जिनमें दो महिलाएं भी शामिल थीं, गिरफ्तार किए गए।

- Two **AK-47 rifles**, **pistols**, **live ammunition**, incriminating documents, and booklets were recovered from their possession.
  उनके पास से दो **AK-47 राइफल्स**, **पिस्तौल**, **जिंदा गोला-बारूद**, आपत्तिजनक दस्तावेज और बुकलेट्स बरामद किए गए।

Dismantling of Illegal Check Posts
गैरकानूनी चेक पोस्ट्स को समाप्त करना

- Security forces dismantled **illegal check posts** set up by **village volunteers** in Manipur along the **Imphal-Churachandpur road**.
  सुरक्षा बलों ने मणिपुर में **इंफाल-चुराचंदपुर रोड** पर **गांव के स्वयंसेवकों** द्वारा बनाए गए **गैरकानूनी चेक पोस्ट्स** को समाप्त कर दिया।
- **Joint security forces** dismantled volunteer check posts at **Kaprang** and **S Kwatlian** in **Churachandpur district** on NH-2.
  संयुक्त सुरक्षा बलों ने चुराचंदपुर जिले में **NH-2** पर **कापरंग** और **S क्वाटलियन** में स्वयंसेवक चेक पोस्ट्स को समाप्त किया।
- Security forces have taken over these locations, ensuring free movement of vehicles.
  सुरक्षा बलों ने इन स्थानों पर कब्जा कर लिया है, जिससे वाहनों की **मुक्त आवाजाही** सुनिश्चित की जा रही है।

Tree-hugging protest against Pune riverfront project reignites development vs nature debate

GS Paper III: Environment

SPOTLIGHT

Vinaya Deshpande Pandit

"Mom, what is a Devrai?"

"Devrai means sacred grove, *beta* (child). These are untouched forests. Yes, we are in a Devrai."

"Who would ever cut down a Devrai, mom?"

This is a conversation between a schoolgirl and her mother at the February 9 'Chipko protest' in Pune against the Riverfront Development Project. The plan is to 'beautify' the 44-km riverfront of three of Pune's contiguous rivers: the Mula, Mutha, and Mula-Mutha, all at a cost of ₹4,727 crore.

At the Sunday protest, about 800 Punekars walked to Ram Nadi's sacred grove in Baner, about 13 km from the city centre. Sacred groves are patches of vegetation protected by local communities that worship deities or ancestors there. They provide ecological protection to parts of these forests.

'No tree felling'

People hugged the trees marked with red numbers. Some were overwhelmed, some angry.

Pune's 2025 Chipko protest was a throwback to the 1970s ecological movement in what is now Uttarakhand, when women clung to trees so that log-

gers could not get to them.

The Riverfront Development Project, designed on the lines of the Sabarmati Riverfront Development Project by architect Bimal Patel's consultancy, HCP Design, has faced both opposition and litigation from Pune residents.

While the Pune Municipal Corporation (PMC) has claimed that the marked trees will not be felled, people say trees are being felled on the opposite bank of the Ram river, a feeder to the three main rivers. Here, the Pimpri-Chinchwad Municipal Corporation has begun work on the project.

The corporation says the opposition to the project has no merit, and the development will, in fact, give back the river to Punekars. Currently, the river resembles a nullah.

The PMC says the rejuvenation of the river ecosystem will be carried out through sewage treatment. "Why should there be opposition to riverfront development?" says a senior PMC official.

Standing in the sacred grove on the banks of the Ram river, the site of the protest, lawyer Asim Sarode says, "The PMC and the PMRDA (Pune Metropolitan Region Development Authority) had told the National Green Tribunal (NGT) that this river does not exist."

The NGT takes on court cases relating to environ-

Protesters' concerns

Environmental groups have roped in experts and college students to geotag the trees individually, as the authorities do not later deny their presence. Citizens' groups have also suggested alternative plans for the comprehensive development of the riverfront.

"We are not against riverfront development. All we are asking for is an environmentally conscious, sensible approach, which moves beyond cosmetic measures. We want a living

river, not concrete slabs around a dead waterbody," says Shailaja Deshpande, founder-director of Jeevitnadi Living River Foundation, which works on reviving rivers.

mental protection.

"That is when petitioner Sarang Yadwadkar had to submit maps to prove to the court that the river did exist," Sarode says.

In 2019, the Ministry of Environment, Forest and Climate Change gave the riverfront project the go-ahead. Yadwadkar, an activist, had filed an environment interest litigation (EIL) petition before the NGT in 2021 challenging this. However, the Ministry gave a fresh approval in 2024. He has again filed an EIL plea against this.

'Lack of transparency'

One of the protesting voices is that of education reformist Sonam Wangchuk, who has come from Ladakh. He was the inspiration behind a character in *3 Idiots*, a Hindi movie that

received both box office and critical acclaim. As Wangchuk walks among the protesters, there is a wave of excitement.

"People's wishes and their choices need to be conveyed to the policymakers. I understand that they (the government) are trying to do this for people. But if the people are not interested in more concrete, if they are more interested in water and air, then the authorities should consider this. In a democratic country, the people's voice is supreme," Wangchuk says at the protest site.

Madhavi Kolte, who runs the non-profit Jeeva Bhavana, which works in plant-based agriculture, claims that 22,000 trees are going to be chopped for the project. "A con-

crete promenade will be constructed. The authorities are not taking our say into consideration."

The PMC, however, says that as per the approved plan, 10,800 trees will be chopped, and 11,000 relocated. "We have already planted over 5,000 trees. The trees' survival rate is 100%," says Yuvraj Deshmukh, chief engineer of the civic body.

Meanwhile, Patel's firm states, "Most of the large native existing trees along the riverbank have been retained and integrated with the proposed embankment." It is unclear how many these are.

Some of the objectives of the project are: reducing the risk of flooding, retaining and replenishing water, cleaning the river and making it pollution-

free, creating a continuous public space along the river, connecting and enhancing surrounding heritage places and buildings, integrating slums, and ensuring more responsive and context-specific development takes place.

One part of the project requires the river to be 'pinched', narrowing it down, thereby increasing its flow, similar to what architect Patel is doing on the Sabarmati.

"We want to ape what Europe does to its rivers. But the biggest difference is that European rivers are perennial. There isn't a great difference between their peak flow and lean flow. That is not the case with us," says Yadwadkar.

These parts of the river can then be used for water sports and boating activities. Environmentalists fear that the narrowed embankment will cause floods and that the four barrages to be built will slow down river cleaning.

Builders' words

At Bund Garden, where work on Stretches 10 and 11 is over 80% complete, visitors smell the river before they see it. The water is black, and a handful of migratory birds from the Salim Ali Bird Sanctuary nearby float in the sewage-heavy water that is infested with water hyacinth.

"We have been trying to

deal with the water hyacinth problem for years. Even when we clean it, it flows down from the upper side, from outside the limits of Pune," says junior engineer Vitthal Mule. He points at a concrete ramp that gives dumper trucks access to carry away the cleared water hyacinth.

Mule walks proudly down the eight-metre-wide promenade. He says there is now a three-metre-wide, soil-based running track. "Only the curb, the guide wall, the toe wall, the ghats, and the viewing decks are made of concrete. The rest is all soil and rocks," he says.

On the embankment, there are rocks put into a metal mesh to form a gabion wall, protecting the coast. "During the recent flood, not a single rock in the gabion wall moved. We were really worried during the monsoon as this was the first test for the project," Mule says.

He says despite the state of the river, people have begun to use the riverfront. "Before, these areas were not accessible to people because of illegal encroachments and anti-social elements. Now, when people smell the stench of the river, they will ask for better quality of water."

LINK TO FULL STORY
» https://bit.ly/4hWTIMY

Green warriors unite: People take part in a protest against the Pune Riverfront Development Project in Baner; (right) people hug trees numbered in red to show that they don't want them to be cut down. EMMANUAL YOGINI

Tree-hugging protest against Pune riverfront project reignites development vs nature debate

पुणे रिवरफ्रंट परियोजना के खिलाफ पेड़ों को गले लगाकर विरोध प्रदर्शन ने विकास बनाम प्रकृति की बहस को फिर से छेड़ दिया

Chipko Protest in Pune Against Riverfront Development Project
पुणे में नदी के किनारे विकास परियोजना के खिलाफ चिपको विरोध

- On **February 9**, a schoolgirl asked her mother, "What is a **Devrai**?" Her mother explained that **Devrai** means **sacred grove**, untouched forests. The protest was held in a **Devrai**.
  9 फरवरी को एक स्कूल लड़की ने अपनी मां से पूछा, "**देव्राई** क्या है?" मां ने समझाया कि **देव्राई** का मतलब है **पवित्र जंगल**, जो अप्रभावित जंगल होते हैं। विरोध एक **देव्राई** में हुआ था।

- The protest was against the **Riverfront Development Project** aimed at 'beautifying' the 44-km riverfront of Pune's **Mula, Mutha, and Mula-Mutha rivers**, costing **₹4,727 crore**.
  यह विरोध **नदी के किनारे विकास परियोजना** के खिलाफ था, जिसका उद्देश्य पुणे की **मुला, मुथा और मुला-मुथा नदियों** के 44 किमी नदी किनारे को 'सुंदर' बनाना था, जिसकी लागत **₹4,727 करोड़** है।

- About **800 Punekars** participated in the protest and walked to the **Ram Nadi's sacred grove in Baner**, about **13 km from the city center**.
  विरोध में लगभग **800 पुणेकर** शामिल हुए और **राम नदी के पवित्र जंगल, बानेर** की ओर **13 किमी** शहर केंद्र से चलकर पहुंचे।

- **Sacred groves** are protected vegetation patches worshipped by local communities. They provide **ecological protection** to parts of forests.
  पवित्र जंगल वे संरक्षित वनस्पति क्षेत्र होते हैं जिन्हें स्थानीय समुदाय पूजा करते हैं। ये जंगलों के कुछ हिस्सों को **पर्यावरणीय सुरक्षा** प्रदान करते हैं।

- Protesters hugged the **trees marked with red numbers**, expressing emotions of being overwhelmed and angry.
  विरोध करने वाले **लाल नंबरों से चिन्हित पेड़ों** को गले लगाते हुए अपने आक्रोश और भावनाओं का प्रदर्शन कर रहे थे।

- The **2025 Chipko protest** in Pune echoed the **1970s ecological movement** of Uttarakhand, where women clung to trees to prevent logging.
  2025 का चिपको विरोध पुणे में **1970 के दशक के पारिस्थितिकी आंदोलन** की याद दिलाता है, जब उत्तराखंड में महिलाएं पेड़ों से चिपक गई थीं ताकि लकड़ी काटने वाले लोग उन्हें न काट सकें।

- The **Riverfront Development Project** is designed based on the **Sabarmati Riverfront Development Project** by architect **Bimal Patel's consultancy, HCP Design**.

नदी के किनारे विकास परियोजना को वास्तुकार **बिमल पटेल की कंसल्टेंसी, HCP डिज़ाइन** द्वारा

साबरमती नदी के किनारे विकास परियोजना के आधार पर डिजाइन किया गया है।

- The project has faced **opposition and litigation** from Pune residents.

  इस परियोजना का **पुणे निवासियों** से **विरोध और मुकदमेबाजी** का सामना करना पड़ा है।

- The **Pune Municipal Corporation (PMC)** claims that the marked trees will not be felled, but people report tree cutting on the opposite bank of the **Ram river**, a feeder river to the main rivers.

  पुणे नगर निगम (PMC) का दावा है कि चिन्हित पेड़ों को नहीं काटा जाएगा, लेकिन लोग रिपोर्ट करते हैं कि **राम नदी** के दूसरी ओर पेड़ काटे जा रहे हैं, जो मुख्य नदियों का **सहायक नदी** है।

- **Pimpri-Chinchwad Municipal Corporation** has started work on the project on the opposite bank.

  पिंपरी-चिंचवड़ नगर निगम ने दूसरी किनारे पर परियोजना पर काम शुरू कर दिया है।

- The corporation argues that the opposition to the project has no merit and that the development will give the river back to Punekars, who currently see it as a nullah.

  नगर निगम का कहना है कि परियोजना के खिलाफ विरोध में कोई आधार नहीं है और यह विकास पुणेकरों को नदी वापस देगा, जिसे वर्तमान में लोग नाले के रूप में देखते हैं।

- Environmental groups have involved **experts and college students** to **geotag** trees to ensure their presence is recognized.

  पर्यावरण समूहों ने **विशेषज्ञों और कॉलेज छात्रों** को पेड़ों की **जियोग्राफिक टैगिंग** करने के लिए शामिल किया है ताकि उनकी उपस्थिति को प्रमाणित किया जा सके।

- Citizens' groups have suggested **alternative plans** for comprehensive riverfront development.

  नागरिक समूहों ने नदी के किनारे के **समग्र विकास** के लिए **वैकल्पिक योजनाएं** सुझाई हैं।

- **Shailaja Deshpande**, founder-director of **Jeevitnadi Living River Foundation**, emphasized that the protest was not against riverfront development, but called for an environmentally conscious approach.

  शैलजा देशपांडे, जीवितनदी लिविंग रिवर फाउंडेशन की संस्थापक-निदेशक ने यह बताया कि यह विरोध नदी के किनारे विकास के खिलाफ नहीं था, बल्कि पर्यावरण के प्रति संवेदनशील दृष्टिकोण की मांग की गई थी।

- **Pune Municipal Corporation (PMC)** claims that **sewage treatment** will rejuvenate the river ecosystem.

  पुणे नगर निगम (PMC) का दावा है कि **सीवेज उपचार** से नदी पारिस्थितिकी तंत्र का पुनर्नवीनीकरण किया जाएगा।

- A **senior PMC official** questioned why there should be opposition to the riverfront development.

  एक **वरिष्ठ PMC अधिकारी** ने पूछा कि नदी के किनारे विकास के खिलाफ विरोध क्यों होना चाहिए।

- **Asim Sarode**, a lawyer, pointed out that the **PMC and PMRDA** had previously claimed to the **National Green Tribunal (NGT)** that the river didn't exist.

वकील **आसिम सरोडे** ने यह बताया कि **PMC और PMRDA** ने पहले **राष्ट्रीय हरित अधिकरण (NGT)** से यह दावा किया था कि नदी अस्तित्व में नहीं है।

- **Sarang Yadwadkar**, a petitioner, had to provide maps to the court to prove that the river existed.

  सारंग यदवदकर, एक याचिकाकर्ता, को यह साबित करने के लिए अदालत में नक्शे प्रस्तुत करने पड़े थे कि नदी अस्तित्व में है।

- In **2019**, the Ministry of Environment, Forest and Climate Change gave the go-ahead for the riverfront project.

  2019 में, **पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय** ने नदी किनारे परियोजना को मंजूरी दी थी।

- **Sarang Yadwadkar** filed an **Environmental Interest Litigation (EIL)** petition in **2021** against the project. The Ministry gave fresh approval in **2024**, and Yadwadkar has filed another **EIL plea**.

  सारंग यदवदकर ने **2021** में परियोजना के खिलाफ **पर्यावरण हित याचिका (EIL)** दायर की थी। मंत्रालय ने **2024** में नई मंजूरी दी, और यदवदकर ने फिर से एक **EIL याचिका** दायर की है।

'Lack of Transparency'
'पारदर्शिता की कमी'

- One of the protesting voices is that of **education reformist Sonam Wangchuk**, who came from **Ladakh**. He inspired a character in the movie **3 Idiots**, which was a huge success.

  विरोध करने वाली आवाज़ों में से एक है **शिक्षा सुधारक सोनम वांगचुक** की, जो **लद्दाख** से आए हैं। वह फिल्म **3 इडियट्स** में एक पात्र से प्रेरित थे, जो बहुत बड़ी सफलता थी।

- As Wangchuk walked among the protesters, there was a wave of **excitement**.

  जैसे ही वांगचुक विरोध करने वालों के बीच चल रहे थे, एक **उत्साह** की लहर थी।

- Wangchuk emphasized that **people's wishes and choices** need to be conveyed to policymakers and that in a **democratic country**, the **people's voice is supreme**.

  वांगचुक ने यह जोर दिया कि **लोगों की इच्छाओं और पसंदों** को नीति निर्धारकों तक पहुंचाना जरूरी है और एक **लोकतांत्रिक देश** में **लोगों की आवाज सर्वोच्च है**।

- **Madhavi Kolte**, founder of **Jeeva Bhavana**, claimed that **22,000 trees** will be chopped for the project.

  माधवी कोलते, जो **जीवा भावना** की संस्थापक हैं, ने दावा किया कि इस परियोजना के लिए **22,000 पेड़** काटे जाएंगे।

- **PMC** claims that according to the approved plan, **10,800 trees** will be chopped, and **11,000 trees** will be relocated. Over **5,000 trees** have been planted, with a **100% survival rate**.

  PMC का दावा है कि अनुमोदित योजना के अनुसार **10,800 पेड़** काटे जाएंगे, और **11,000 पेड़**

स्थानांतरित किए जाएंगे। अब तक **5,000 से अधिक पेड़** लगाए गए हैं, जिनका **100% जीवन दर** है।

- **Patel's firm** mentions that most of the large native trees along the riverbank have been retained and integrated with the proposed **embankment**.

  पटेल की फर्म का कहना है कि नदी किनारे के अधिकांश बड़े स्थानीय पेड़ों को बनाए रखा गया है और प्रस्तावित **तटबंध** में समाहित किया गया है।

- The project's objectives include: reducing the risk of **flooding**, retaining and replenishing water, cleaning the river, making it **pollution-free**, creating **public spaces** along the river, and enhancing surrounding **heritage places**.

  परियोजना के उद्देश्य में शामिल हैं: **बाढ़** का खतरा कम करना, पानी को बनाए रखना और पुनः भरना, नदी को साफ करना, इसे **प्रदूषण-मुक्त** बनाना, नदी के किनारे **सार्वजनिक स्थान** बनाना और आसपास के **धरोहर स्थलों** को बढ़ावा देना।

- Part of the project involves 'pinching' the river, narrowing it to increase its **flow**, similar to what **architect Patel** did on the **Sabarmati riverfront**.

  परियोजना का एक हिस्सा नदी को 'संकुचित' करने में शामिल है, जिससे उसके **प्रवाह** को बढ़ाया जा सके, जैसा कि **वास्तुकार पटेल** ने **साबरमती नदी किनारे** पर किया था।

- **Sarang Yadwadkar** pointed out that **European rivers** are perennial, unlike Indian rivers, and the river narrowing could lead to **floods**.

  सारंग यदवदकर ने यह बताया कि **यूरोपीय नदियाँ** स्थायी होती हैं, जबकि भारतीय नदियाँ नहीं होतीं, और नदी के संकुचन से **बाढ़** आ सकती है।

- The narrowed embankment will also be used for **water sports** and **boating activities**, but environmentalists fear that it could slow down **river cleaning**.

  संकीर्ण तटबंध का उपयोग **पानी के खेल** और **नौका विहार** के लिए भी किया जाएगा, लेकिन पर्यावरणविदों का डर है कि इससे **नदी सफाई** में देरी हो सकती है।

- At **Bund Garden**, work on **Stretches 10 and 11** is over **80% complete**. Visitors can smell the river before they see it, as the water is **black** and polluted with **water hyacinth**.

  बुंड गार्डन में, **स्ट्रेच 10 और 11** पर काम **80% पूरा** हो चुका है। विज़िटर्स पहले नदी की गंध महसूस करते हैं, क्योंकि पानी **काला** और **जल हाइसिंथ** से प्रदूषित है।

- **Vitthal Mule**, a junior engineer, mentioned the long-standing issue of **water hyacinth** and how it flows down from outside Pune's limits.

  विठ्ठल मुळे, एक जूनियर इंजीनियर, ने **जल हाइसिंथ** की पुरानी समस्या का उल्लेख किया और बताया कि यह पुणे की सीमाओं से बाहर से बहकर आता है।

- Mule pointed to a **concrete ramp** for dumper trucks to carry away the cleared **water hyacinth**.

  मुळे ने एक **कंक्रीट रैंप** की ओर इशारा किया, जो डंपर ट्रकों को साफ किए गए **जल हाइसिंथ** को ले जाने के लिए है।

- He proudly walked down the **8-meter-wide promenade**, mentioning that only parts of it were made of concrete, such as the **curb, guide wall, toe wall, ghats**, and **viewing**

decks.

वह गर्व से **8 मीटर चौड़ी प्रदक्षिणा** पर चलकर यह बताते हैं कि इसमें से केवल कुछ हिस्से कंक्रीट से बने हैं, जैसे **करब, गाइड दीवार, टो दीवार, घाट** और **देखने के डेक**।

- On the embankment, **gabion walls** made of **rocks in metal mesh** are used to protect the coast, and they survived the recent **flood.**

  तटबंध पर, **रॉक और धातु की जाली** से बने **गैबियन दीवारों** का उपयोग तट की सुरक्षा के लिए किया गया है, और उन्होंने हाल की **बाढ़** का सामना किया।

- Despite the river's condition, people have begun using the riverfront that was previously inaccessible due to **illegal encroachments** and **anti-social elements.**

  नदी की स्थिति के बावजूद, लोग नदी किनारे का उपयोग करना शुरू कर चुके हैं, जो पहले **अवैध अतिक्रमण** और **असामाजिक तत्वों** के कारण लोगों के लिए पहुंच योग्य नहीं था।

- Now, when people smell the stench of the river, they will demand **better water quality.**

  अब, जब लोग नदी की बदबू महसूस करेंगे, तो वे **बेहतर जल गुणवत्ता** की मांग करेंगे।

Bouquets, brickbats for Tharoor over his start-up comment

Ruling LDF praises him for highlighting Kerala's 'stupendous' growth; UDF says he is 'parroting government propaganda without reality check'

GS Paper III: Start-Ups

G. Anand
THIRUVANANTHAPURAM

Congress Working Committee (CWC) member Shashi Tharoor, MP, has received praise from the ruling Left Democratic Front (LDF) for highlighting Kerala's 'stupendous' growth in the start-up sector, while facing intense flak from the Congress-led United Democratic Front (UDF) Opposition for "parroting the government propaganda without a reality check".

Evidently caught in the vortex of a seemingly snowballing controversy, Mr. Tharoor rushed to disentangle himself from the knotty dispute. In a Facebook post on Sunday, he said the latest Global Start-Up Ecosystem Report (2024) informed his comment published in a newspaper last week.

Furthermore, Mr. Tharoor said he had appended a qualification to the government's assertion regarding the 'exceptional' ease of doing business in the State. "I noted that if it is true and not merely hyperbole, this represents an astonishing development," he said.

Mr. Tharoor credited former Chief Minister Oommen Chandy and former Industries Minister and Indian Union Muslim League national general se-

cretary P.K. Kunhalikutty for placing Kerala on a steep upward growth trajectory, which he said the LDF was struggling to emulate after decades of resistance to investments. Mr. Tharoor denied he had painted Kerala as a utopian polity. He highlighted the State's high unemployment rate, burgeoning debt, and agrarian crisis.

Mr. Tharoor's attempt to put the record straight did not ward off sharp criticism from UDF convener M.M. Hassan, who said that the Congress viewed Mr. Tharoor's variance from the party line seriously. He accused Mr. Tharoor of ingesting LDF's propaganda trick hook, line, and sinker without any reality check.

Mr. Hassan and Mr. Kunhalikutty also took strong exception to Mr. Tharoor branding Prime Minister

Modi's visit to the U.S. a 'success'. Both leaders said the humiliating extradition of manacled Indian emigrants to the country on U.S. warplanes starkly contrasted Mr. Tharoor's opinion. Asked if he was gravitating from Congress politics, Mr. Hassan said the former was best placed to answer the question.

LDF leaders deluged Mr. Tharoor with praise. Communist Party of India (CPI) State secretary Binoy Viswam said Mr. Tharoor had demolished Congress propaganda that Kerala's industrial growth was on an irreversible downward spiral like a 'house of cards'. CPI(M) Central Committee member A.K. Balan lauded Mr. Tharoor for being forthright about Kerala's development with the rider that the LDF did not agree with the latter's 'other views'.

Shashi Tharoor, denying he had painted Kerala as a utopian polity, highlighted the State's burgeoning debt and agrarian crisis. ANI

बिना वास्तविकता की जांच किए दोहराने" के लिए **गंभीर आलोचना** का सामना करना पड़ा।

- Caught in a growing controversy, Mr. Tharoor rushed to clear his position, stating in a **Facebook post** that his comment was based on the **latest Global StartUp Ecosystem Report (2024)**.

  बढ़ती हुई विवाद में फंसे, श्री थरूर ने अपनी स्थिति स्पष्ट करने के लिए एक **फेसबुक पोस्ट** में कहा कि उनकी टिप्पणी **नवीनतम ग्लोबल स्टार्टअप इकोसिस्टम रिपोर्ट (2024)** पर आधारित थी।

- Mr. Tharoor clarified that he had **qualified** the government's assertion about Kerala's exceptional ease of doing business.

  श्री थरूर ने स्पष्ट किया कि उन्होंने केरल में व्यापार करने की विशेष **सुविधा** के बारे में सरकार के कथन को **योग्य** किया था।

- He praised **former Chief Minister Oommen Chandy** and **former Industries Minister P.K. Kunhalikutty** for placing Kerala on an upward growth trajectory.

  उन्होंने **पूर्व मुख्यमंत्री ओमन चांडी** और **पूर्व उद्योग मंत्री पी.के. कुण्हालिकुट्टी** की सराहना की, जिन्होंने केरल को एक ऊपर की ओर विकास यात्रा पर रखा।

- Mr. Tharoor denied presenting Kerala as a **utopian polity** and highlighted the State's **high unemployment rate, burgeoning debt**, and **agrarian crisis**.

  श्री थरूर ने केरल को एक **काल्पनिक राजनीति** के रूप में प्रस्तुत करने से इनकार किया और राज्य की **उच्च बेरोजगारी दर, बढ़ता हुआ कर्ज**, और **कृषि संकट** को उजागर किया।

- Despite his attempt to clarify, **UDF convener M.M. Hassan** sharply criticized Mr. Tharoor, stating that Congress took his deviation from the party line seriously.

  उनके स्पष्टीकरण के प्रयास के बावजूद, **UDF संयोजक एम.एम. हसन** ने श्री थरूर की तीखी आलोचना की, यह कहते हुए कि कांग्रेस उनकी पार्टी की रेखा से भटकने को गंभीरता से लेती है।

- Mr. Hassan accused Mr. Tharoor of swallowing the **LDF's propaganda** without any **reality check**.

  श्री हसन ने श्री थरूर पर **LDF के प्रचार** को बिना किसी **वास्तविकता जांच** के निगलने का आरोप लगाया।

- Both **Mr. Hassan** and **Mr. Kunhalikutty** criticized Mr. Tharoor for calling **Prime Minister Modi's visit to the U.S. a success**.

  श्री हसन और श्री कुण्हालिकुट्टी दोनों ने श्री थरूर की आलोचना की, जिन्होंने **प्रधानमंत्री मोदी की अमेरिका यात्रा को सफल** बताया।

- They pointed out that the **extradition** of manacled Indian emigrants on U.S. warplanes starkly contrasted with Mr. Tharoor's opinion.

  उन्होंने यह बताया कि **हस्तांतरण** के दौरान अमेरिकी युद्ध विमानों पर बंधे हुए भारतीय प्रवासियों का **उद्धार** श्री थरूर की राय के विपरीत था।

- When asked about his possible shift from Congress politics, Mr. Hassan stated that **only Mr. Tharoor** could answer that question.

  जब उनसे कांग्रेस राजनीति से उनके संभावित विचलन के बारे में पूछा गया, तो श्री हसन ने कहा कि **केवल श्री थरूर** इस सवाल का जवाब दे सकते हैं।

- **LDF leaders** praised Mr. Tharoor for demolishing Congress propaganda that Kerala's industrial growth was in irreversible decline.

  LDF नेताओं ने श्री थरूर की सराहना की, जिन्होंने कांग्रेस के प्रचार को नकारते हुए कहा कि केरल की औद्योगिक वृद्धि **अपरिवर्तनीय गिरावट** में नहीं है।

- **CPI State Secretary Binoy Viswam** said Mr. Tharoor had shattered Congress propaganda that Kerala's industrial growth was like a **'house of cards'**.

  CPI राज्य सचिव बिनॉय विश्वम ने कहा कि श्री थरूर ने कांग्रेस के प्रचार को नष्ट कर दिया, जिसमें कहा गया था कि केरल की औद्योगिक वृद्धि **'पत्तों के घर'** जैसी है।

- **CPI(M) Central Committee member A.K. Balan** lauded Mr. Tharoor for his straightforward approach regarding Kerala's development, but with the note that the **LDF disagreed with his other views**.

  CPI(M) केंद्रीय समिति सदस्य ए.के. बालन ने श्री थरूर की केरल के विकास पर उनकी **सीधे-साधे दृष्टिकोण** के लिए सराहना की, लेकिन यह कहा कि **LDF उनके अन्य विचारों से सहमत नहीं था।**

The silent crisis of rat-hole mining

GS Paper III: Disaster Management, Environment

On January 29, the Gauhati High Court took suo motu cognisance of the mining tragedy in Umrangso, Assam. The January 6 mine flooding in Umrangso, which trapped nine labourers and killed at least four, was yet another preventable tragedy in a series of accidents in the north-east. For instance, in Meghalaya, at least 30 miners have lost their lives in the past five years due to similar accidents. Weak enforcement has allowed these disasters to persist, with influential individuals operating illegal mines unchecked. Rather than taking preventive action, authorities respond only after lives are lost.

Why illegal mining persists

Coal mining in Meghalaya and Assam, once a small-scale practice, expanded dangerously in the 1980s due to industrial demand from West Bengal and Bangladesh. The region's terrain made mechanised extraction difficult, leading to a proliferation of rat-hole mines. This hazardous method involves digging narrow tunnels that are barely large enough for a person to crawl through, posing significant risks to miners. Rat-hole mining occurs in two forms: side-cutting, which follows coal seams along hill slopes, and box-cutting, where miners dig pits up to 400 feet deep and extract coal horizontally, forming a tunnel network. This technique, prevalent in the north-east, particularly Meghalaya and the borders of Assam, poses significant safety and environmental hazards. The mining period stretches between November and March. Migrant labourers, often trapped in cycles of debt, are lured by 'Sardars' (labour agents) under exploitative conditions that amount to bonded labour. Reports highlight that children are trafficked into these mines due to their ability to navigate the narrow tunnels, making them easy targets for abuse. There are approximately

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Stronger State laws, technological surveillance, and alternative livelihoods must replace reactionary governance

26,000 unclosed mine openings, each employing up to 200 workers in shifts, putting thousands of labourers at daily risk in hazardous conditions.

The National Green Tribunal (NGT) banned rat-hole mining on April 17, 2014, due to environmental degradation and unsafe working conditions. This decision was later upheld by the Supreme Court in *State of Meghalaya v. All Dimasa Students Union* (2019). However, enforcement remains weak, as many illegal mines operate under the influence of powerful bureaucrats and coal mafias. Whistle blowers, including local officials and activists, face threats while authorities fail to hold perpetrators accountable.

Several States indirectly enable rat-hole mining by exploiting regulatory loopholes. They are often under pressure from coal mafias and local politicians who profit from these illegal operations. For instance, the Meghalaya government has attempted to secure an exemption under Schedule 6, Paragraph 12A(b) of the Constitution to regulate coal mining on its own terms, bypassing national laws such as the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act). The State Assembly even passed a resolution seeking this exemption, but the resolution remains unapproved. Economic and political interests drive this effort – coal mining generates revenue and employment – while powerful individuals with stakes in the industry resist enforcement of the ban. However, under Section 23C of the MMDR Act, Meghalaya is obligated to prevent illegal mining. Yet, it has failed to create State-level laws to enforce the 2014 NGT ban. As a result, illegal mining continues.

Assam too has failed to prevent illegal rat-hole mining, leading to recurring tragedies. Despite the NGT ban and Supreme Court directives, the lack of stringent State regulations allows such operations to persist. If the State government is unable or unwilling to act, the Union government must step in, as it did in Karnataka's Bellary region in 2011, when large-scale illegal mining forced the Supreme Court and the Centre to impose a ban, with the latter using its powers under Section 30 of the MMDR Act.

A multi-faceted approach

Now, with the Gauhati High Court taking suo motu cognisance of the Assam tragedy, there is renewed hope for accountability and action. However, unless governments take proactive measures rather than simply reacting after lives are lost, judicial directives will remain ineffective. The failure of Assam and Meghalaya to enforce the law is not just administrative negligence but a violation of Article 21 of the Constitution (right to life).

To tackle the menace of rat-hole mining, a multi-faceted approach is essential. First, policy reforms must criminalise rat-hole mining under the MMDR Act, with stricter penalties under Section 21 and enhanced monitoring mechanisms. Ensuring compliance requires incorporating the ban into State-specific regulations under Section 23C of the Act. This would allow States to craft localised frameworks tailored to their unique challenges, establish accountability measures, and close enforcement gaps. Second, alternative livelihoods for mining-dependent communities, such as eco-tourism, must be prioritised to reduce reliance on illegal activities. Third, technology can play a transformative role. Satellite-based monitoring can track mining operations, improve transparency, and curb illegal practices. The Ministry of Mines' Mining Surveillance System could enhance enforcement, as it did in Karnataka. Empowering local communities through stronger enforcement of the Forest Rights Act, 2006, and requiring their consent for mining can promote inclusivity.

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The silent crisis of rat-hole mining
रैट-होल खनन का मौन संकट

Gauhati High Court Takes Suo Motu Cognisance of Mining Tragedy in Umrangso
गुवाहाटी उच्च न्यायालय ने उमरंगसो में खनन त्रासदी का स्वत: संज्ञान लिया

- On **January 29**, the **Gauhati High Court** took suo motu cognisance of the **mining tragedy** in **Umrangso, Assam**.
  29 जनवरी को, **गुवाहाटी उच्च न्यायालय** ने **उमरंगसो, असम** में खनन त्रासदी का स्वत: संज्ञान लिया।

- The **January 6** mine flooding in Umrangso trapped **nine labourers** and killed at least **four**.
  6 जनवरी को उमरंगसो में खनन बाढ़ ने **नौ श्रमिकों** को फंसा लिया और कम से कम **चार** की मौत हो गई।

- This tragedy is part of a series of preventable accidents in the **north-east** region, including **Meghalaya**, where **30 miners** have lost their lives in the past **five years**.
  यह त्रासदी **उत्तर-पूर्व** क्षेत्र में होने वाली **रोकथाम योग्य** दुर्घटनाओं की एक कड़ी है, जिसमें **मेघालय** में पिछले **पाँच वर्षों** में **30 खनिकों** की जान गई है।

- Weak enforcement of regulations has allowed **illegal mining** to continue, with influential individuals operating illegal mines unchecked.
  नियमों का कमजोर पालन **अवैध खनन** को जारी रखने की अनुमति देता है, जिसमें प्रभावशाली व्यक्तियाँ अवैध खदानों का संचालन बिना किसी जांच के कर रही हैं।

- Authorities respond only after lives are lost, rather than taking **preventive action**.
  प्राधिकरण केवल तब प्रतिक्रिया देते हैं जब **जिंदगियाँ खो जाती हैं**, बजाय इसके कि **रोकथाम** की कार्रवाई की जाए।

Why Illegal Mining Persists
अवैध खनन क्यों जारी रहता है

- **Coal mining** in **Meghalaya** and **Assam**, once a small-scale practice, expanded dangerously in the **1980s** due to industrial demand from **West Bengal** and **Bangladesh**.
  मेघालय और **असम** में **कोयला खनन**, जो पहले एक छोटे स्तर का अभ्यास था, **1980 के दशक** में **पश्चिम बंगाल** और **बांग्लादेश** से औद्योगिक मांग के कारण खतरनाक रूप से बढ़ गया।

- The region's **terrain** made mechanized extraction difficult, leading to the rise of **rat-hole mines**.
  क्षेत्र का **भूभाग** यांत्रिक निष्कर्षण को कठिन बनाता था, जिसके परिणामस्वरूप **रैट-होल खदानों** का उदय हुआ।

- Rat-hole mining involves digging narrow tunnels barely wide enough for a person to crawl, posing significant risks to miners.

  रैट-होल खनन में संकरी सुरंगों की खुदाई होती है, जो मुश्किल से एक व्यक्ति के Crawl करने के लिए पर्याप्त होती है, जिससे खनिकों के लिए **महत्वपूर्ण जोखिम** उत्पन्न होता है।

- Rat-hole mining occurs in two forms: **side-cutting** and **box-cutting**, the latter forming a tunnel network.

  रैट-होल खनन दो रूपों में होता है: **साइड-कटिंग** और **बॉक्स-कटिंग**, जिसमें दूसरा सुरंग नेटवर्क बनाता है।

- The mining period stretches from **November to March**.

  खनन की अवधि **नवंबर से मार्च** तक होती है।

- **Migrant labourers**, often trapped in debt, are exploited by **Sardars** (labour agents), working under bonded labour conditions.

  मजदूर प्रवासी, जो अक्सर कर्ज में फंसे होते हैं, **सार्डारों** (मजदूरी एजेंटों) द्वारा **बंधन मजदूरी** की स्थितियों में शोषित होते हैं।

- Children are often trafficked into these mines due to their ability to navigate the narrow tunnels.

  बच्चों को अक्सर इन खदानों में तस्करी कर भेजा जाता है क्योंकि वे संकीर्ण सुरंगों में आसानी से जा सकते हैं।

- There are approximately **26,000 unclosed mine openings**, employing up to **200 workers** in shifts, putting thousands at risk.

  लगभग **26,000 खुली खदानों** के गड्ढे हैं, जो शिफ्टों में **200 श्रमिकों** को रोजगार देते हैं, जिससे हजारों लोगों को खतरे में डाला जाता है।

- The **National Green Tribunal (NGT)** banned rat-hole mining on **April 17, 2014**, citing **environmental degradation** and **unsafe working conditions**.

  नेशनल ग्रीन ट्रिब्यूनल (NGT) ने 17 अप्रैल 2014 को रैट-होल खनन पर प्रतिबंध लगाया, जिसमें **पर्यावरणीय गिरावट** और **असुरक्षित कार्य परिस्थितियों** का हवाला दिया गया।

- The ban was upheld by the **Supreme Court** in **State of Meghalaya v. All Dimasa Students Union (2019)**.

  प्रतिबंध को **सुप्रीम कोर्ट** ने **राज्य मेघालय बनाम ऑल डिमासा स्टूडेंट्स यूनियन (2019)** में मंजूरी दी।

- Despite the ban, **enforcement remains weak**, and illegal mines operate under the influence of powerful bureaucrats and coal maffias.

  प्रतिबंध के बावजूद, **पालन कमजोर है**, और अवैध खदानें शक्तिशाली अधिकारियों और कोयला माफियाओं के प्रभाव में संचालित होती हैं।

- **Whistleblowers**, including local officials and activists, face **threats**, while authorities fail to hold perpetrators accountable.

  सूचना देने वाले, जिनमें स्थानीय अधिकारी और कार्यकर्ता शामिल हैं, को **धमकियाँ** मिलती हैं, जबकि प्राधिकरण अपराधियों को जवाबदेह ठहराने में विफल रहते हैं।

- Several states indirectly enable rat-hole mining by exploiting **regulatory loopholes**.
  कई राज्य **नियामक खामियों** का फायदा उठाकर रैट-होल खनन को अप्रत्यक्ष रूप से सक्षम करते हैं।

- For instance, the **Meghalaya government** has attempted to secure an **exemption** under **Schedule 6, Paragraph 12A(b)** of the Constitution to regulate coal mining.
  उदाहरण के लिए, **मेघालय सरकार** ने संविधान के **अनुच्छेद 6, पैरा 12A(b)** के तहत कोयला खनन को नियंत्रित करने के लिए **छूट** प्राप्त करने का प्रयास किया है।

- The **Meghalaya State Assembly** passed a resolution seeking this exemption, but the resolution remains **unapproved**.
  मेघालय राज्य विधानसभा ने इस छूट की मांग करते हुए एक प्रस्ताव पारित किया, लेकिन यह प्रस्ताव **अस्वीकृत** रहा है।

- Economic and political interests drive efforts to bypass the **MMDR Act**, with powerful individuals resisting enforcement of the ban.
  आर्थिक और राजनीतिक हित **MMDR अधिनियम** को दरकिनार करने के प्रयासों को प्रेरित करते हैं, और शक्तिशाली व्यक्ति प्रतिबंध के लागू होने का विरोध करते हैं।

- **Meghalaya** has failed to create **state-level laws** to enforce the **2014 NGT ban**.
  मेघालय 2014 NGT प्रतिबंध को लागू करने के लिए **राज्य-स्तरीय कानून** बनाने में विफल रहा है।

- As a result, **illegal mining continues**.
  इसके परिणामस्वरूप, **अवैध खनन जारी रहता है**।

- **Assam** has also failed to prevent illegal rat-hole mining, leading to recurring **tragedies**.
  असम ने भी अवैध रैट-होल खनन को रोकने में असफलता दिखाई है, जिसके कारण **आवर्ती त्रासदियाँ** होती हैं।

- If the state government is unable or unwilling to act, the **Union government** must intervene, as it did in **Karnataka's Bellary region in 2011**.
  यदि राज्य सरकार कार्रवाई करने में असमर्थ या अनिच्छुक है, तो **केंद्रीय सरकार** को हस्तक्षेप करना चाहिए, जैसा कि उसने **2011 में कर्नाटक के बेल्लारी क्षेत्र** में किया था।

A Multi-Faceted Approach
एक बहु-आयामी दृष्टिकोण

- To tackle **rat-hole mining**, a multi-faceted approach is necessary.
  रैट-होल खनन से निपटने के लिए एक **बहु-आयामी दृष्टिकोण** आवश्यक है।

- First, **policy reforms** must criminalize rat-hole mining under the **MMDR Act** with **stricter penalties** and enhanced monitoring.
  पहला, **नीति सुधारों** को रैट-होल खनन को **MMDR अधिनियम** के तहत अपराध घोषित करना चाहिए, जिसमें **कठोर दंड** और उन्नत निगरानी शामिल हो।

- States must incorporate the ban into **state-specific regulations** to enhance compliance.
  राज्यों को **राज्य-विशिष्ट नियमों** में प्रतिबंध को शामिल करना चाहिए ताकि अनुपालन बढ़ सके।

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- Second, **alternative livelihoods** for mining-dependent communities, such as **eco-tourism**, must be prioritized to reduce reliance on illegal activities.

  दूसरा, खनन-निर्भर समुदायों के लिए **वैकल्पिक आजीविकाओं**, जैसे कि **इको-पर्यटन**, को प्राथमिकता दी जानी चाहिए ताकि अवैध गतिविधियों पर निर्भरता कम हो सके।

- Third, **technology** can play a transformative role, with **satellite-based monitoring** and enhanced enforcement systems.

  तीसरा, **प्रौद्योगिकी** एक परिवर्तनकारी भूमिका निभा सकती है, जैसे कि **सैटेलाइट-आधारित निगरानी** और बढ़ी हुई प्रवर्तन प्रणालियाँ।

- Empowering local communities through stronger enforcement of the **Forest Rights Act, 2006**, and requiring their consent for mining can promote inclusivity.

  स्थानीय समुदायों को **वन अधिकार अधिनियम, 2006** के कड़े पालन के माध्यम से सशक्त बनाना और खनन के लिए उनकी सहमति प्राप्त करना समावेशिता को बढ़ावा दे सकता है।

Will U.S.'s F-35 stealth fighter jets fit into IAF's future plans?

GS Paper III: Defence

NEWS ANALYSIS

Dinakar Peri
NEW DELHI

Early last week, the fifth-generation fighter aircraft (FGFA) of both Russia and the U.S. – the Su-57 and the F-35, respectively – were on display at the Aero India airshow in Bengaluru. Later that week, U.S. President Donald Trump, standing next to Prime Minister Narendra Modi, who was on a visit to Washington DC, announced that the U.S. would be increasing military sales to India "by many billions of dollars" and was also paving the way to "ultimately" provide India with the F-35 stealth fighters.

The announcement has created a flutter in India about the possible procurement of the jet for the Indian Air Force (IAF), and it comes at a time when the country faces a huge gap in fighter induction and modernisation. However, responding to questions, Foreign Secretary Vikram Misri was quick to point out that there is a process to be followed for military procurement and that the formal process in this regard has not started "as yet".

The biggest question is how will it impact India's own fighter development programmes, which, though behind schedule, are crucial for achieving self-reliance.

The F-35 is a tri-service, multinational, single-seat, single-engine strike fighter aircraft expected to be in service well into the 2080s. It has three variants – the F-35A conventional take-off and landing for the Air Force, the F-35B short take-off/vertical landing for the Marine Corps, and the F-35C aircraft carrier variant for the Navy and the Marine Corps.

"It is too early to say anything very definitively, but whatever the decision may be, it must be ensured that the indigenous programmes are shielded and their timely realisation prioritised," one official said on the condition of anonymity. A similar view was expressed by many.

Key challenges

While the offer of F-35 means the U.S. is no longer concerned with the Russian S-400 air defence system that India operates, the jet will present significant challenges in integration in India's military architecture, which is a mix of Indian, Russian, French, Israeli, and other systems.

To date, the F-35 programme has delivered over 990 aircraft to the U.S. services, international partners, and foreign military sales customers, according to a 2024 report of the U.S. Governmental Accountability Office. "The programme is also more than a decade delayed and has cost $209 billion more than originally planned," the report said, highlighting that none of the F-35 variants are meeting availability targets.

The jet, like the LCA-Mk1, is powered by the GE F404 engine and deliveries have been delayed by two years. At Aero India, officials said that GE has resolved its supply chain issue and deliveries are expected from March.

A key point is that the F-35 is a single-seater aircraft, contrary to the IAF's preference for twin-seater jets. One of the reasons the earlier attempt at co-development of the FGFA with Russia was dropped was that the jet had been developed in a single-seat configuration and the Russian proposal for the development of a twin-seater variant came with a hefty price tag. So how will the F-35 proposal, if and when that takes shape, fit the IAF's operational profile?

Currently, the indigenous Light Combat Aircraft (LCA)-Mk1A project – 83 jets have been ordered and order for 97 more are in the pipeline – has been delayed partly due to developmental issues and engine delays.

Further, there is the LCA-Mk2, a much larger and more capable aircraft, the first prototype of which is expected to roll out by 2025-end and make first flight in the first quarter of 2026, according to Jitendra J. Jadhav, Director-General, Aeronautical Development Agency.

Then there is India's own FGFA in the pipeline, the Advanced Medium Combat Aircraft, which is envisaged to be ready for induction by 2034-35.

Apart from the indigenous programmes, there is the Multi-Role Fighter Aircraft (MRFA) tender for the acquisition of 114 foreign jet to be manufactured in India under licence.

Given this long line-up, it remains to be seen how the F-35 will fit into the IAF's future plans. India has never operated a U.S. fighter and the F-35, being the apex of U.S. technology threshold, will also bring with it stringent U.S. regulations and oversight.

Mean machine: The U.S. F-35 stealth fighter during Aero India in Bengaluru last week. MURALI KUMAR K.

Will U.S.'s F-35 stealth fighter jets fit into IAF's future plans?

क्या अमेरिका के एफ-35 स्टील्थ लड़ाकू जेट विमान भारतीय वायुसेना की भविष्य की योजनाओं में शामिल नहीं होंगे?

Display of Fighter Aircrafts at Aero India
एरो इंडिया में फाइटर एयरक्राफ्ट्स का प्रदर्शन

- Early last week, the **fifth-generation fighter aircraft** (FGFA) of both Russia and the U.S. — the **Su-57** and the **F-35**, respectively — were on display at the **Aero India airshow** in **Bengaluru**.

  पिछले सप्ताह की शुरुआत में, **रूस** और **यू.एस.** के **पाँचवीं पीढ़ी के लड़ाकू विमान** (FGFA) — **Su-57** और **F-35**, क्रमशः – **एरो इंडिया एयरशो** में **बेंगलुरु** में प्रदर्शित किए गए थे।

- Later that week, **U.S. President Donald Trump**, standing next to **Prime Minister Narendra Modi**, who was on a visit to **Washington DC**, announced that the U.S. would be increasing **military sales to India** "by many billions of dollars" and was also paving the way to "ultimately" provide **India** with the **F-35 stealth fighters**.

  उसी सप्ताह के अंत में, **यू.एस. राष्ट्रपति डोनाल्ड ट्रंप**, जो **प्रधानमंत्री नरेंद्र मोदी** के साथ खड़े थे, जो **वाशिंगटन डी.सी.** यात्रा पर थे, ने घोषणा की कि **यू.एस.** भारत को "कई **बिलियन डॉलर**" के हिसाब से **सैन्य बिक्री** बढ़ाने जा रहा है और साथ ही **भारत** को **F-35 स्टेल्थ फाइटर** प्रदान करने की दिशा में काम कर रहा है।

Possible Procurement of F-35 Fighter for Indian Air Force (IAF)
भारतीय वायुसेना (IAF) के लिए F-35 फाइटर की संभावित खरीद

- The announcement has created a flutter in India about the possible **procurement of the jet** for the **Indian Air Force (IAF)**, and it comes at a time when the country faces a huge **gap in fighter induction** and **modernisation**.

  इस घोषणा ने भारत में **भारतीय वायुसेना (IAF)** के लिए **जेट की संभावित खरीद** को लेकर हलचल मचा दी है, और यह उस समय आई है जब देश को **लड़ाकू विमानों के सम्मिलन** और **आधुनिकीकरण** में एक **विशाल अंतर** का सामना है।

- However, responding to questions, **Foreign Secretary Vikram Misri** was quick to point out that there is a process to be followed for **military procurement** and that the formal process in this regard has not started "as yet".

  हालांकि, सवालों का जवाब देते हुए, **विदेश सचिव विक्रम मिस्री** ने यह स्पष्ट किया कि **सैन्य खरीद** के लिए एक प्रक्रिया का पालन करना होता है और इस संदर्भ में **औपचारिक प्रक्रिया** अभी तक "शुरू नहीं हुई है।"

Impact on India's Own Fighter Development Programs
भारत के अपने लड़ाकू विमान विकास कार्यक्रमों पर प्रभाव

- The biggest question is how will it impact India's own **fighter development programmes**, which, though behind schedule, are crucial for achieving **self-reliance**.

  सबसे बड़ा सवाल यह है कि यह भारत के अपने **लड़ाकू विमान विकास कार्यक्रमों** पर कैसे असर डालेगा, जो कि, भले ही समय से पीछे हैं, **आत्मनिर्भरता** हासिल करने के लिए महत्वपूर्ण हैं।

About F-35 Fighter Aircraft
F-35 फाइटर विमान के बारे में

- The **F-35** is a **tri-service**, multinational, **single-seat**, **single-engine strike fighter aircraft** expected to be in service well into the **2080s**.
  F-35 एक **त्रि-सेवा**, बहुराष्ट्रीय, **सिंगल-सीट**, **सिंगल-इंजन स्ट्राइक फाइटर विमान** है, जो **2080s** तक सेवा में रहने की उम्मीद है।

- It has three variants — the **F-35A** conventional takeoff and landing for the **Air Force**, the **F-35B** short take-off/vertical landing for the **Marine Corps**, and the **F-35C** aircraft carrier variant for the **Navy** and the **Marine Corps**.
  इसमें तीन प्रकार हैं – **F-35A** पारंपरिक टेकऑफ़ और लैंडिंग **वायुसेना** के लिए, **F-35B** शॉर्ट टेकऑफ़/वर्टिकल लैंडिंग **मरीन कॉर्प्स** के लिए, और **F-35C** एरक्राफ्ट कैरियर वेरिएंट **नौसेना** और **मरीन कॉर्प्स** के लिए।

Challenges for IAF and Aircraft Integration
IAF के लिए चुनौतियाँ और विमान एकीकरण

- The F-35 will present significant challenges in **integration** in India's military architecture, which is a mix of **Indian**, **Russian**, **French**, **Israeli**, and other systems.
  F-35 भारत के सैन्य ढांचे में **एकीकरण** में महत्वपूर्ण चुनौतियाँ पेश करेगा, जो **भारतीय**, **रूस**, **फ्रांसीसी**, **इजरायली**, और अन्य प्रणालियों का मिश्रण है।

- To date, the **F-35 programme** has delivered over **990 aircraft** to the U.S. services, international partners, and foreign military sales customers, according to a **2024 report** of the **U.S. Governmental Accountability Office**.
  अब तक, **F-35 प्रोग्राम** ने **990 से अधिक विमान** यू.एस. **सेवाओं**, अंतरराष्ट्रीय साझेदारों, और विदेशी सैन्य बिक्री ग्राहकों को वितरित किए हैं, जैसा कि **2024 की रिपोर्ट** में **यू.एस. सरकारी लेखा परीक्षा कार्यालय** द्वारा बताया गया है।

Delays and Cost Overruns in F-35 Program
F-35 प्रोग्राम में देरी और लागत में वृद्धि

- The report highlighted that none of the F-35 variants are meeting **availability targets**.
  रिपोर्ट में यह बताया गया कि F-35 के किसी भी प्रकार ने **उपलब्धता लक्ष्यों** को पूरा नहीं किया है।

- A key point is that the **F-35** is a **single-seater aircraft**, contrary to the IAF's preference for **twin-seater jets**.
  एक महत्वपूर्ण बिंदु यह है कि **F-35** एक **सिंगल-सीटर विमान** है, जो **IAF** की **डबल-सीटर जेट्स** की पसंद के विपरीत है।

LCA-Mk1A and LCA-Mk2 Development
LCA-Mk1A और LCA-Mk2 विकास

- Currently, the indigenous **Light Combat Aircraft (LCA)-Mk1A** project — **83 jets** have been ordered and order for **97 more** are in the pipeline — has been delayed partly due to developmental issues and **engine delays**.

  वर्तमान में, स्वदेशी **लाइट कॉम्बैट एयरक्राफ्ट (LCA)-Mk1A** परियोजना – **83 जेट्स** का आदेश दिया गया है और **97 और** का आदेश पाइपलाइन में है – आंशिक रूप से विकासात्मक समस्याओं और **इंजन में देरी** के कारण विलंबित हो गई है।

- The jet, like the **LCA-Mk1**, is powered by the **GE F404 engine** and deliveries have been delayed by two years.

  यह विमान, जैसे **LCA-Mk1**, **GE F404 इंजन** से संचालित है और आपूर्ति में दो साल की देरी हुई है।

- At **Aero India**, officials said that **GE** has resolved its **supply chain issue** and deliveries are expected from **March**.

  एरो इंडिया में, अधिकारियों ने कहा कि **GE** ने अपनी **सप्लाई चेन समस्या** को हल कर लिया है और आपूर्ति **मार्च** से शुरू होने की उम्मीद है।

India's Own FGFA – Advanced Medium Combat Aircraft
भारत का अपना FGFA – एडवांस्ड मीडियम कॉम्बैट एयरक्राफ्ट

- Then there is **India's own FGFA** in the pipeline, the **Advanced Medium Combat Aircraft**, which is envisaged to be ready for induction by **2034-35**.

  फिर **भारत का अपना FGFA** पाइपलाइन में है, **एडवांस्ड मीडियम कॉम्बैट एयरक्राफ्ट**, जिसे **2034-35** तक **इंडक्शन** के लिए तैयार होने का अनुमान है।

MRFA Tender for 114 Foreign Jets
114 विदेशी जेट्स के लिए MRFA निविदा

- Apart from the indigenous programmes, there is the **Multi-Role Fighter Aircraft (MRFA)** tender for the acquisition of **114 foreign jets** to be manufactured in India under license.

  स्वदेशी कार्यक्रमों के अलावा, **मल्टी-रोल फाइटर एयरक्राफ्ट (MRFA)** निविदा है, जिसमें **114 विदेशी जेट्स** की खरीद भारत में लाइसेंस के तहत निर्मित की जानी है।

F-35 in India's Future Air Force Plans
F-35 भारत के भविष्य के वायुसेना योजनाओं में

- Given this long line-up, it remains to be seen how the **F-35** will fit into the IAF's future plans.

  इस लंबी सूची को देखते हुए, यह देखना बाकी है कि **F-35** कैसे IAF की भविष्य की योजनाओं में फिट होगा।

- India has never operated a **U.S. fighter** and the **F-35**, being the apex of **U.S. technology**, will also bring with it stringent **U.S. regulations and oversight**.

भारत ने कभी भी **यू.एस. फाइटर** का संचालन नहीं किया है और **F-35**, जो **यू.एस. प्रौद्योगिकी** की उच्चतम सीमा है, इसके साथ कड़ी **यू.एस. विनियमों और निगरानी** को भी लेकर आएगा।

AI-enabled cameras in Similipal Tiger Reserve send poaching plummeting

GS Paper III: Use of S&T to protect environment

The devices are tucked away in the reserve's thick vegetation. When they sense movement, they capture an image, and then use a built-in chip to sort between object classes such as 'animals,' 'humans,' and 'vehicles' in the image. If the chip deems it necessary, a camera can transmit the image to an end-user in 40 seconds

Nikhil Sreekandan

"Last year, we lost two of our men to poachers," Samrat Gowda, deputy director of the Similipal Tiger Reserve in Odisha, said. "Every time we come across them, the poachers are armed with a loaded gun."

But such encounters have become much less common of late. As part of an early alert system called TrailGuard AI, the Similipal Tiger Reserve was fitted with 100-150 cameras loaded with an artificial intelligence (AI) model. The cameras relay images of people and wildlife entering the forest to the model, which looks for poachers among them.

"Earlier, we didn't know when poachers entered. Now we have clear information about the area the poachers are in, so our people are prepared," Gowda said.

In the last 10 months, TrailGuard AI has helped wildlife officials at Similipal arrest 96 poachers and seize more than 86 country-made guns. In December alone, the team arrested over 40 poachers.

"House raids based on photo identification have given very good results," according to Gowda. "If this trend continues, I'm hopeful poaching can be reduced by at least 80%. Once that happens, naturally, our people will be safer, along with the forest and wildlife."

Proactive enforcement

The AI-enabled cameras are tucked away in the reserve's thick vegetation. They operate on a low-power mode by default but switch to a high-power mode when they sense movement, and capture an image. The camera then performs AI inference on the edge, meaning it uses the chip inside to sort between various object classes such as 'animals,' 'humans,' and 'vehicles' in the image. If the AI deems it necessary, it autonomously transmits an image using the cellular system attached to the camera to an end-user in 30-40 seconds.

"We have set up a control room in our headquarters, with a big screen, where we are alerted whenever there is a photo update," Gowda said. "We then immediately transmit the information on our WhatsApp groups and VHF radio."

Catching poachers in the forest still isn't straightforward. Wildlife officials use intelligence sources to identify the poachers caught on camera. These sources include their regular staff, who go undercover with poachers to collect information about who they are, the villages they hail from, and other details.

"Once we get 100% confirmation that these are the people that entered the forest, we will raid their house or village and arrest the person and forward them to the court with proper documentation," according to Gowda.

He also stressed the importance of proactive enforcement mechanisms backing up the inputs provided by TrailGuard. "Getting photos is the easy part, but after that what you do is most important. We are actively going and raiding [houses] and bringing people in. So both the technology and our on-ground efforts complement each other to give us good results," he added.

According to the latest department report, the arrests in 2024 led to one conviction, obtained within six months – fast, according to Gowda. His colleagues are hoping for two or three more convictions soon.

Smaller, cheaper, durable

TrailGuard AI was conceived and made by Nightjar Technologies, a social impact enterprise in Gurgaon that develops remote surveillance devices for conservation settings.

Its founder Piyush Yadav singled the TrailGuard camera systems out for praise. "There are two units," he explained. "One is the camera unit, the size of a pen, and the other is the battery/communication unit, the size of a notepad. They are attached using a two-metre-long cable. So it's not bulky but is rather a spread out design."

But according to Gowda, TrailGuard's best feature is its battery life. He said it

Catching poachers still isn't straightforward. Officials use intelligence sources to identify the poachers. Sources include their staff, who go undercover with poachers to collect information about who they are and the villages they hail from

lasts for "six months to one year based on the number of photos it sends," meaning officials don't have to make regular trips to replace batteries – a blessing in the challenging terrain of Similipal.

According to Yadav, TrailGuard AI cameras cost roughly ₹ 50,000-53,000 per unit.

Access to tribal communities

The villages in and around Similipal are occupied by tribal communities. Hunting is part of their culture, even if many of them have moved away to other forms of sustenance. They need to be able to access the forest, too.

"The tiger reserve has traditionally had a lot of incursions from neighbouring communities around Similipal," said Aditya Panda, a naturalist, wildlife conservationist, and the honorary wildlife warden of Satkosia Tiger Reserve in the same State. "People come in large numbers to engage in bushmeat poaching."

Apart from TrailGuard cameras, the

forest department uses regular camera traps in areas with no network, rendering it almost impossible for anyone in the forest to not be caught on camera.

But one result of this surveillance is that many villagers have stopped going into the forest for fear of being mistaken for poachers and arrested. Their ability to collect firewood and other non-timber forest products has concomitantly declined.

"We are discussing with the [local] people and facilitating safer ways to access the forest, because it shouldn't be that because of one poacher everyone is restricted," Gowda said.

Wider use-case, adoption

The TrailGuard system has been an effective anti-poaching tool and Panda believes it can do more. "I think this sort of technology can be a gamechanger when it comes to patrolling and monitoring our protected areas, not only to intercept illegal entry and incursions but also in monitoring wildlife," he said.

"We have deployment ongoing in five States right now, at more than 14 sites," Yadav said of TrailGuard. It has also been implemented in the Kanha Tiger Reserve in Madhya Pradesh and Dudhwa National Park in Uttar Pradesh with 20 and 10 cameras respectively, as part of efforts to mitigate human-wildlife conflict.

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A TrailGuard AI camera unit seen at Similipal Tiger Reserve. SPECIAL ARRANGEMENT

THE GIST

Over the last 10 months, TrailGuard AI has helped wildlife officials arrest 96 poachers and seize more than 86 country-made guns. In December alone, over 40 poachers were arrested. Officials say, 'House raids based on photos have provided very good results'

The TrailGuard system comprises two units: a camera unit, the size of a pen, and a battery/communication unit, the size of a notepad. They are attached using a two-metre-long cable. The battery has a life of six months to one year based on the number of photos it sends

The technology is being deployed in five States at more than 14 sites. It has been implemented in the Kanha Tiger Reserve in Madhya Pradesh and Dudhwa National Park in Uttar Pradesh with 20 and 10 cameras, respectively, as part of efforts to mitigate human-wildlife conflict

AI-enabled cameras in Similipal Tiger Reserve send poaching plummeting

सिमिलिपाल टाइगर रिजर्व में एआई-सक्षम कैमरों से अवैध शिकार में भारी गिरावट

The devices are tucked away in the reserve's thick vegetation. When they sense movement, they capture an image, and then use a built-in chip to sort between object classes such as 'animals,' 'humans', and 'vehicles' in the image. If the chip deems it necessary, a camera can transmit the image to an end-user in 40 seconds

ये उपकरण रिजर्व की घनी वनस्पतियों में छिपे हुए हैं। जब वे हलचल महसूस करते हैं, तो वे एक छवि कैप्चर करते हैं, और फिर छवि में 'जानवर', 'मनुष्य' और 'वाहन' जैसे ऑब्जेक्ट वर्गों के बीच छाँटने के लिए एक अंतर्निहित चिप का उपयोग करते हैं। यदि चिप इसे आवश्यक समझती है, तो एक कैमरा 40 सेकंड में छवि को अंतिम उपयोगकर्ता तक पहुंचा सकता है

Loss of Two Men to Poachers
शिकारियों द्वारा दो लोगों की मौत

- "Last year, we lost two of our men to **poachers**," **Samrat Gowda**, deputy director of the **Similipal Tiger Reserve** in **Odisha**, said.
  "पिछले साल, हम अपने दो लोगों को **शिकारियों** के हाथों खो चुके हैं," **सम्राट गोवदा**, **ओडिशा** के **सिमिलीपल टाइगर रिजर्व** के उप निदेशक ने कहा।
- "Every time we come across them, the poachers are armed with a **loaded gun**."
  "हर बार जब हम उनसे मिलते हैं, शिकारियों के पास **लोडेड गन** होती है।"

Reduction in Poaching Encounters
शिकार के मामलों में कमी

- But such encounters have become much **less common** of late.
  लेकिन हाल के दिनों में ऐसे मुठभेड़ बहुत कम आम हो गए हैं।

Implementation of TrailGuard AI System
ट्रेलगार्ड एआई सिस्टम का कार्यान्वयन

- As part of an early **alert system** called **TrailGuard AI**, the **Similipal Tiger Reserve** was fitted with **100-150 cameras** loaded with an **artificial intelligence (AI)** model.
  एक प्रारंभिक **अलर्ट सिस्टम** के रूप में, जिसे **ट्रेलगार्ड एआई** कहा जाता है, **सिमिलीपल टाइगर रिजर्व** में **100-150 कैमरे** लगाए गए थे, जो एक **कृत्रिम बुद्धिमत्ता (एआई)** मॉडल से लैस थे।

- The cameras relay images of **people** and **wildlife** entering the forest to the model, which looks for **poachers** among them.
  कैमरे **लोगों** और **वन्यजीवों** की तस्वीरें जंगल में प्रवेश करते समय मॉडल को भेजते हैं, जो उनमे से **शिकारियों** को पहचानता है।

Improved Preparedness for Poaching Activities
शिकार गतिविधियों के लिए बेहतर तैयारी

- "Earlier, we didn't know when poachers entered. Now we have **clear information** about the area the poachers are in, so our people are prepared," Gowda said.
  "पहले, हमें यह नहीं पता था कि शिकारी कब प्रवेश करते हैं। अब हमारे पास **स्पष्ट जानकारी** है कि शिकारी किस इलाके में हैं, इसलिए हमारे लोग तैयार हैं," गोवदा ने कहा।

Impact of TrailGuard AI in Poacher Arrests
ट्रेलगार्ड एआई का शिकारी गिरफ्तारी पर प्रभाव

- In the last **10 months**, **TrailGuard AI** has helped wildlife officials at **Similipal** arrest **96 poachers** and seize more than **86 country-made guns**.
  पिछले **10 महीनों** में, **ट्रेलगार्ड एआई** ने **सिमिलीपल** में वन्यजीव अधिकारियों को **96 शिकारियों** को गिरफ्तार करने और **86 से अधिक देसी बनी बंदूकें** जब्त करने में मदद की है।
- In **December** alone, the team arrested over **40 poachers**.
  सिर्फ **दिसंबर** में, टीम ने **40 से अधिक शिकारी** गिरफ्तार किए।

AI-Assisted House Raids and Results
एआई सहायता प्राप्त घर में छापेमारी और परिणाम

- "**House raids** based on **photo identification** have given very good results," according to Gowda.
  "**फोटो पहचान** पर आधारित **घर में छापेमारी** ने बहुत अच्छे परिणाम दिए हैं," गोवदा के अनुसार।
- "If this trend continues, I'm hopeful poaching can be reduced by at least **80%**. Once that happens, naturally, our people will be safer, along with the **forest and wildlife**."
  "अगर यह रुझान जारी रहा, तो मुझे उम्मीद है कि शिकार को कम से कम **80%** तक घटाया जा सकता है। एक बार ऐसा हो गया, तो स्वाभाविक रूप से, हमारे लोग **जंगल और वन्यजीवों** के साथ सुरक्षित होंगे।"

Proactive Enforcement with AI-Enabled Cameras
एआई सक्षम कैमरों के साथ सक्रिय प्रवर्तन

- The **AI-enabled cameras** are tucked away in the reserve's **thick vegetation**.
  एआई सक्षम कैमरे रिजर्व के **घने वनस्पति** में छिपे हुए हैं।

- They operate on a **low-power mode** by default but switch to a **high-power mode** when they sense movement, and capture an image.
  ये डिफ़ॉल्ट रूप से **लो-पावर मोड** में काम करते हैं, लेकिन जब ये किसी **संचलन** को महसूस करते हैं, तो ये **हाई-पावर मोड** में स्विच कर जाते हैं और एक चित्र कैप्चर करते हैं।

- The camera then performs **AI inference** on the edge, meaning it uses the chip inside to sort between various object classes such as '**animals**', '**humans**', and '**vehicles**' in the image.
  फिर कैमरा **एआई इनफेरेंस** करता है, जिसका मतलब है कि यह अंदर के चिप का उपयोग करके चित्र में विभिन्न वस्तु वर्गों जैसे '**जानवर**', '**मनुष्य**', और '**वाहन**' के बीच भेद करता है।

- If the AI deems it necessary, it autonomously transmits an image using the **cellular system** attached to the camera to an end-user in **30-40 seconds**.
  अगर एआई इसे आवश्यक समझता है, तो यह स्वायत्त रूप से एक चित्र को कैमरे से जुड़ी **सेलुलर सिस्टम** का उपयोग करके **30-40 सेकंड** में अंतिम उपयोगकर्ता को भेज देता है।

Control Room Setup and Information Sharing
कंट्रोल रूम सेटअप और जानकारी का आदान-प्रदान

- "We have set up a **control room** in our headquarters, with a big screen, where we are alerted whenever there is a photo update," Gowda said.
  "हमने अपने मुख्यालय में एक **कंट्रोल रूम** स्थापित किया है, जिसमें एक बड़ा स्क्रीन है, जहां हमें हर बार फोटो अपडेट होने पर अलर्ट किया जाता है," गोवदा ने कहा।

- "We then immediately transmit the information on our **WhatsApp groups** and **VHF radio**."
  "हम फिर तुरंत इस जानकारी को अपने **व्हाट्सएप समूहों** और **VHF रेडियो** पर भेजते हैं।"

Challenges in Poacher Identification and Arrest
शिकारी पहचान और गिरफ्तारी में चुनौतियाँ

- Catching poachers in the forest still isn't straightforward.
  जंगल में शिकारियों को पकड़ना अब भी सीधा नहीं है।

- Wildlife officials use **intelligence sources** to identify the poachers caught on camera.
  वन्यजीव अधिकारी कैमरे में पकड़े गए शिकारियों की पहचान करने के लिए **गुप्त सूचना स्रोतों** का उपयोग करते हैं।

- These sources include their regular staff, who go undercover with poachers to collect information about who they are, the villages they hail from, and other details.
  इन स्रोतों में उनका नियमित स्टाफ शामिल होता है, जो शिकारियों के साथ गुप्त रूप से काम करता है ताकि उनके बारे में जानकारी एकत्र कर सके, जैसे कि वे कौन हैं, वे किस गांव से आते हैं, और अन्य विवरण।

- "Once we get **100% confirmation** that these are the people that entered the forest, we will raid their house or village and arrest the person and forward them to the court with

proper documentation," according to Gowda.

"एक बार हमें **100% पुष्टि** मिल जाने पर कि ये वही लोग हैं जिन्होंने जंगल में प्रवेश किया था, हम उनके घर या गांव में छापेमारी करेंगे और उस व्यक्ति को गिरफ्तार कर उचित दस्तावेज़ के साथ **अदालत** में भेज देंगे," गोवदा के अनुसार।

portance of Proactive Enforcement Mechanisms
सक्रिय प्रवर्तन तंत्र का महत्व

- He also stressed the importance of **proactive enforcement mechanisms** backing up the inputs provided by **TrailGuard**.
  उन्होंने **ट्रेलगार्ड** द्वारा प्रदान की गई सूचनाओं के समर्थन में **सक्रिय प्रवर्तन तंत्र** के महत्व पर भी जोर दिया।

- "Getting **photos** is the easy part, but after that what you do is most important. We are actively going and raiding [houses] and bringing people in. So both the technology and our on-ground efforts complement each other to give us good results," he added.
  "**फोटो** प्राप्त करना आसान हिस्सा है, लेकिन उसके बाद जो आप करते हैं, वही सबसे महत्वपूर्ण है। हम सक्रिय रूप से [घरों] में छापेमारी कर रहे हैं और लोगों को पकड़ रहे हैं। इसलिए **प्रौद्योगिकी** और हमारे **जमीन पर प्रयास** एक दूसरे का पूरक हैं, जिससे हमें अच्छे परिणाम मिल रहे हैं," उन्होंने जोड़ा।

Conviction Rate in 2024
2024 में सजा की दर

- According to the latest department report, the **arrests** in **2024** led to one **conviction**, obtained within **six months** — fast, according to Gowda.
  ताज़ा विभागीय रिपोर्ट के अनुसार, **2024** में की गई **गिरफ्तारियों** में एक **सजा** हुई, जो **छह महीनों** के भीतर प्राप्त हुई — गोवदा के अनुसार, यह तेज़ है।

- His colleagues are hoping for **two or three** more convictions soon.
  उनके सहयोगी जल्दी ही **दो या तीन** और सजा की उम्मीद कर रहे हैं।

TrailGuard AI's Cost and Durability
ट्रेलगार्ड एआई की लागत और स्थायित्व

- **TrailGuard AI** was conceived and made by **Nightjar Technologies**, a **social impact enterprise** in **Gurgaon** that develops remote surveillance devices for conservation settings.
  ट्रेलगार्ड एआई को **नाइटजार टेक्नोलॉजीज** द्वारा कल्पित और बनाया गया था, जो **गुरुग्राम** में स्थित एक **सामाजिक प्रभाव उद्यम** है जो संरक्षण सेटिंग्स के लिए रिमोट निगरानी उपकरण विकसित करता है।

- Its founder **Piyush Yadav** singled the **TrailGuard camera systems** out for praise.
  इसके संस्थापक **पियूष यादव** ने **ट्रेलगार्ड कैमरा सिस्टम** की सराहना की।

- "There are **two units**," he explained. "One is the **camera unit**, the size of a pen, and the other is the **battery/communication unit**, the size of a notepad. They are attached using a **two-metre-long cable**. So it's not bulky but is rather a spread out design."
  "यहां **दो इकाइयां** हैं," उन्होंने समझाया। "एक है **कैमरा यूनिट**, जो एक पेन के आकार का है, और दूसरी है **बैटरी/संचार यूनिट**, जो एक नॉटपैड के आकार की है। इन्हें एक **दो मीटर लंबे केबल** से जोड़ा जाता है। तो यह भारी नहीं है बल्कि एक विस्तृत डिजाइन है।"

Battery Life of TrailGuard AI
ट्रेलगार्ड एआई की बैटरी लाइफ

- But according to Gowda, **TrailGuard's best feature** is its **battery life**.
  लेकिन गोवदा के अनुसार, **ट्रेलगार्ड की सबसे अच्छी विशेषता** इसकी **बैटरी लाइफ** है।

- He said it lasts for "**six months to one year** based on the number of photos it sends," meaning officials don't have to make regular trips to replace batteries — a **blessing** in the challenging terrain of **Similipal**.
  उन्होंने कहा कि यह "**छह महीने से एक साल** तक चलता है, जो कि भेजी गई तस्वीरों की संख्या पर निर्भर करता है," इसका मतलब है कि अधिकारियों को नियमित रूप से बैटरियां बदलने के लिए यात्रा करने की आवश्यकता नहीं है – यह **सिमिलीपल** के चुनौतीपूर्ण इलाके में एक **आशीर्वाद** है।

Cost of TrailGuard AI Cameras
ट्रेलगार्ड एआई कैमरों की लागत

- According to Yadav, **TrailGuard AI cameras** cost roughly ₹ **50,000-53,000** per unit.
  यादव के अनुसार, **ट्रेलगार्ड एआई कैमरे** की लागत लगभग ₹ **50,000-53,000** प्रति इकाई है।

Access to Tribal Communities
आदिवासी समुदायों की पहुँच

- The villages in and around **Similipal** are occupied by **tribal communities**.
  सिमिलीपल के आसपास और उसके भीतर के गांव **आदिवासी समुदायों** द्वारा आबाद हैं।

- Hunting is part of their culture, even if many of them have moved away to other forms of sustenance.
  शिकार उनकी संस्कृति का हिस्सा है, भले ही उनमें से कई लोग अन्य प्रकार की जीविका की ओर बढ़ चुके हों।

- They need to be able to access the forest, too.
  उन्हें भी जंगल तक पहुँचने की आवश्यकता है।

Concerns Over Bushmeat Poaching

झाड़ी मांस शिकार पर चिंता

- "The **tiger reserve** has traditionally had a lot of incursions from neighbouring communities around Similipal," said **Aditya Panda**, a naturalist, wildlife conservationist, and the honorary wildlife warden of **Satkosia Tiger Reserve** in the same State.

  "**बाघ रिजर्व** पारंपरिक रूप से सिमिलीपल के आसपास के पड़ोसी समुदायों से बहुत से घुसपैठ का सामना करता रहा है," **आदित्य पांडा**, एक प्रकृतिवादी, वन्यजीव संरक्षक और **सातकोसिया टाइगर रिजर्व** के मानद वन्यजीव प्रहरी ने कहा।

- "People come in large numbers to engage in **bushmeat poaching**."

  "लोग बड़ी संख्या में **झाड़ी मांस शिकार** में शामिल होने आते हैं।"

Surveillance and Its Impact on Villagers

निगरानी और इसके आदिवासियों पर प्रभाव

- Apart from **TrailGuard cameras**, the forest department uses regular **camera traps** in areas with no network, rendering it almost impossible for anyone in the forest to not be caught on camera.

  ट्रेलगार्ड कैमरों के अलावा, वन विभाग उन क्षेत्रों में नियमित **कैमरा ट्रैप्स** का उपयोग करता है, जहां नेटवर्क नहीं होता, जिससे यह लगभग असंभव हो जाता है कि जंगल में कोई भी कैमरे में न पकड़ा जाए।

- But one result of this surveillance is that many villagers have stopped going into the forest for fear of being mistaken for **poachers** and arrested.

  लेकिन इस निगरानी का एक परिणाम यह है कि कई आदिवासियों ने **शिकारियों** के रूप में गलत पहचान जाने और गिरफ्तार होने के डर से जंगल में जाना बंद कर दिया है।

- Their ability to collect **firewood** and other **non-timber forest products** has concomitantly declined.

  उनकी **लकड़ी** और अन्य **गैर-लकड़ी वन उत्पाद** इकट्ठा करने की क्षमता साथ ही घट गई है।

Efforts to Facilitate Safe Forest Access

जंगल तक सुरक्षित पहुँच के लिए प्रयास

- "We are discussing with the [local] people and are facilitating safer ways to access the forest, because it shouldn't be that because of one poacher everyone is restricted," Gowda said.

  "हम [स्थानीय] लोगों से चर्चा कर रहे हैं और जंगल तक सुरक्षित पहुँच के तरीके प्रदान कर रहे हैं, क्योंकि ऐसा नहीं होना चाहिए कि एक शिकारी की वजह से सभी को प्रतिबंधित किया जाए," गोवदा ने कहा।

Wider Use-Case and Adoption of TrailGuard
ट्रेलगार्ड का व्यापक उपयोग और स्वीकृति

- The **TrailGuard system** has been an effective **anti-poaching tool** and **Panda** believes it can do more.

  ट्रेलगार्ड सिस्टम एक प्रभावी **शिकार विरोधी उपकरण** है और **पांडा** का मानना है कि यह और अधिक कर सकता है।

- "I think this sort of technology can be a **gamechanger** when it comes to **patrolling** and **monitoring** our protected areas, not only to intercept illegal entry and incursions but also in monitoring wildlife," he said.

  "मुझे लगता है कि इस प्रकार की प्रौद्योगिकी **गुप्त निगरानी** और **सुरक्षित क्षेत्रों की निगरानी** में एक **खिलाड़ी परिवर्तनकर्ता** साबित हो सकती है, न केवल अवैध प्रवेश और घुसपैठ को रोकने के लिए, बल्कि वन्यजीवों की निगरानी में भी," उन्होंने कहा।

- "We have deployment ongoing in **five States** right now, at more than **14 sites**," Yadav said of **TrailGuard**.

  "हम अभी **पाँच राज्यों** में **14 से अधिक स्थलों** पर **ट्रेलगार्ड** का कार्यान्वयन कर रहे हैं," यादव ने कहा।

- It has also been implemented in the **Kanha Tiger Reserve** in **Madhya Pradesh** and **Dudhwa National Park** in **Uttar Pradesh** with **20** and **10** cameras respectively, as part of efforts to mitigate **human-wildlife conflict**.

  यह **मध्य प्रदेश** के **कन्हा टाइगर रिजर्व** और **उत्तर प्रदेश** के **दुधवा नेशनल पार्क** में भी लागू किया गया है, जिसमें क्रमशः **20** और **10** कैमरे लगाए गए हैं, जो **मानव-वन्यजीव संघर्ष** को कम करने के प्रयास का हिस्सा हैं।

Carbon capture: a pricey fix?

GS Paper III: Environmental Conservation

Vasudevan Mukunth

Global warming is the result of certain greenhouse gases — but especially carbon dioxide (CO2) — building up in the air and preventing the planet from cooling as quickly as it would without them. Although some natural processes emit these gases, their build-up to dangerous levels is entirely due to emissions from human industrial activity, including the combustion of fossil fuels like coal and petrol.T

The human response to climate change has two prongs: adaptation and mitigation. Adaptation deals with how the world, its people, and their activities can adjust to an increasingly warming world. Mitigation is concerned with reducing CO2 emissions.

An important type of technology that straddles both these efforts is carbon capture and sequestration (CCS). Here, a device sucks carbon or CO2 out of an emission source, like the chimneys of a power plant, or the atmosphere itself, converts it to a different form, and stores it in a sealed container.

Representative image of a refinery. BRO TAKES PHOTOS

CCS has been controversial: among others, researchers have said it could create more 'room' to pollute by removing CO2 from the air.

A study published on February 9 in the journal *Environmental Science & Technology* has now reported that deploying CCS technologies will also be more expensive than switching to renewable energy. According to the paper, policies that promote CCS "to reduce or offset CO2 emissions" in 149 countries will incur 9-12-times the social cost of those countries switching entirely to wind, water, and solar power.

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Carbon capture: a pricey fix?
कार्बन कैप्चर: एक महंगा समाधान?

Global Warming and Greenhouse Gases
वैश्विक गर्मी और ग्रीनहाउस गैसें

- Global warming is the result of certain **greenhouse gases** — but especially **carbon dioxide (CO2)** — building up in the air and preventing the planet from cooling as quickly as it would without them.

वैश्विक गर्मी कुछ **ग्रीनहाउस गैसों** के कारण होती है – लेकिन विशेष रूप से **कार्बन डाइऑक्साइड (CO2)** — जो वायुमंडल में इकट्ठा हो जाती हैं और ग्रह को उतनी जल्दी ठंडा होने से रोकती हैं जितना कि बिना इनके होता।

- Although some natural processes emit these gases, their build-up to dangerous levels is entirely due to emissions from **human industrial activity**, including the combustion of **fossil fuels** like **coal** and **petrol**.

हालाँकि कुछ प्राकृतिक प्रक्रियाएँ इन गैसों का उत्सर्जन करती हैं, लेकिन इनके खतरनाक स्तर तक इकट्ठा होने का कारण पूरी तरह से **मानव औद्योगिक गतिविधियाँ** हैं, जिनमें **कोयला** और **पेट्रोल** जैसे **जीवाश्म ईंधन** का दहन शामिल है।

Human Response to Climate Change
जलवायु परिवर्तन के प्रति मानवीय प्रतिक्रिया

- The human response to climate change has two prongs: **adaptation** and **mitigation**.
  जलवायु परिवर्तन के प्रति मानवीय प्रतिक्रिया के दो पहलू हैं: **अनुकूलन** और **निवारण**।
- **Adaptation** deals with how the world, its people, and their activities can adjust to an increasingly warming world.
  - **अनुकूलन** यह देखता है कि दुनिया, उसके लोग और उनकी गतिविधियाँ कैसे बढ़ती गर्मी वाले विश्व के अनुरूप ढाल सकती हैं।
- **Mitigation** is concerned with reducing **CO2 emissions**.
  - **निवारण CO2 उत्सर्जन** को कम करने से संबंधित है।

Carbon Capture and Sequestration (CCS)
कार्बन कैप्चर और सीक्वेस्ट्रेशन (CCS)

- An important type of technology that straddles both these efforts is **carbon capture and sequestration (CCS)**.

  एक महत्वपूर्ण प्रकार की प्रौद्योगिकी जो इन दोनों प्रयासों को जोड़ती है, वह है **कार्बन कैप्चर और सीक्वेस्ट्रेशन (CCS)**।

- Here, a device sucks carbon or **CO2** out of an emission source, like the **chimneys** of a power plant, or the atmosphere itself, converts it to a different form, and stores it in a sealed container.

  यहाँ, एक उपकरण **CO2** या कार्बन को उत्सर्जन स्रोत से निकालता है, जैसे कि एक पावर प्लांट के **चिमनियों** से, या स्वयं वायुमंडल से, इसे एक अलग रूप में बदलता है, और इसे एक सील किए गए कंटेनर में संग्रहित करता है।

Controversy Surrounding CCS
CCS के आसपास विवाद

- CCS has been controversial: among others, researchers have said it could create more 'room' to pollute by removing **CO2** from the air.

  CCS विवादास्पद रहा है: अन्य बातों के अलावा, शोधकर्ताओं ने कहा है कि यह **CO2** को वायुमंडल से हटाकर प्रदूषण करने के लिए और अधिक 'स्थान' बना सकता है।

CCS vs Renewable Energy Costs
CCS बनाम नवीकरणीय ऊर्जा लागत

- A study published on **February 9, 2024** in the journal **Environmental Science & Technology** has now reported that deploying **CCS technologies** will also be more expensive than switching to **renewable energy**.

  9 फरवरी 2024 को **एंवायर्नमेंटल साइंस एंड टेक्नोलॉजी** जर्नल में प्रकाशित एक अध्ययन ने अब रिपोर्ट किया है कि **CCS प्रौद्योगिकियों** का उपयोग करना **नवीकरणीय ऊर्जा** में स्विच करने से भी महँगा होगा।

- According to the paper, policies that promote **CCS** "to reduce or offset **CO2 emissions**" in **149 countries** will incur **9-12-times** the **social cost** of those countries switching entirely to **wind**, **water**, and **solar power**.

  पत्र के अनुसार, जो नीतियाँ **CO2 उत्सर्जन** को कम करने या उसे संतुलित करने के लिए **CCS** को बढ़ावा देती हैं, वे **149 देशों** में उन देशों के **पवन**, **जल**, और **सौर ऊर्जा** पर पूरी तरह स्विच करने की **सामाजिक लागत** का **9-12 गुना** खर्च करेंगी।