



PATRIOTIC IAS: Near Rajbanshi Hospital, Paidleyganj Road, Gorakhpur

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09_12_2024 DAILY CURRENT AFFAIRS

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सीरिया में विद्रोहियों ने दमिश्क पर कब्जा किया, असद फरार (GS Paper-II)
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- 3. Syria Crisis: Syriac Orthodox Church Head Cuts Short Kerala Visit, to Fly Back Tomorrow / सीरिया संकट: सिरिएक ऑर्थोडॉक्स चर्च के प्रमुख ने केरल यात्रा को छोटा किया, कल वापस लौटेंगे** (GS Paper-I: A&C)
- 4. Challenges in Providing Safe Drinking Water / सुरक्षित पीने के पानी की आपूर्ति में चुनौतियां** (GS Paper-II: Governance)
- 5. The Issue of India's Economic Growth Versus Emissions / भारत की आर्थिक वृद्धि बनाम उत्सर्जन का मुद्दा** (GS Paper-III: Environment)
- 6. Gamify India's Skilling Initiatives / भारत की कौशल योजनाओं को गेमिफाई करना** (GS Paper-III: Unemployment)
- 7. Sathanur Dam Floods / सथानूर बांध में बाढ़** (GS Paper-I: Geography)
- 8. The place of charity in an unequal society / असमान समाज में दान का स्थान** (GS Paper-IV: Ethics)





9. **Delay in Forming a Government in Austria / ऑस्ट्रिया में सरकार गठन में देरी (GS Paper-II: IR)**
10. **Should AI be blamed for sporadic layoffs in Big Tech? / क्या sporadic layoffs के लिए AI को दोष देना चाहिए? (GS Paper-III: S&T)**
11. **Trump's Return a Nightmare for China and Europe ट्रम्प की वापसी: चीन और यूरोप के लिए एक बुरा सपना (GS Paper-II: Global World Order)**
12. **Chandigarh Leads in Enforcing Criminal Laws चंडीगढ़ ने आपराधिक कानूनों को लागू करने में बढ़त बनाई (GS Paper-II: Three New Laws)**
13. **Burkina Faso's Military Junta Appoints New Prime Minister / बुर्किना फासो की सैन्य जुंटा ने नए प्रधानमंत्री की नियुक्ति की (GS Paper-II: IR)**
14. **Ghana's Former Leader Mahama Wins Presidential Election / घाना के पूर्व नेता महामा ने राष्ट्रपति चुनाव जीता (GS Paper-II: IR)**
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16. **Sudan Rescuers Say 28 Killed in Shelling of Khartoum Fuel Station / सूडानी बचावकर्ताओं ने खार्तूम ईंधन स्टेशन पर गोलाबारी में 28 लोगों के मारे जाने की सूचना दी (GS Paper-II: IR)**
17. **Australia PM terms synagogue fire an act of 'terrorism' ऑस्ट्रेलिया के प्रधानमंत्री ने आराधनालय पर हमला करने को 'आतंकवाद' की कार्रवाई बताया (PCS)**





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18. Study Brings Indian Star Tortoise to Evidence-Based Conservation / भारतीय तारा कछुए को साक्ष्य-आधारित संरक्षण में लाने का अध्ययन (GS Paper-III: Environment)



Samridh Narishakti, Viksit Bharat

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Militants in Syria capture Damascus as Assad flees

No sign of Army deployment as militants enter capital; Prime Minister calls for free elections

GS Paper II



Tense situation: Flames sweeping through the criminal security branch of Syria's Interior Ministry in Damascus on Sunday. AFP

Reuters
AMMAN/BEIRUT/CAIRO

The militant group Hayat Tahrir al-Sham (HTS) in Syria declared President Bashar al-Assad's ouster after seizing control of Damascus on Sunday, ending his family's iron-fisted rule after more than 13 years of civil war in a seismic moment for West Asia.

Mr. Assad fled out of Damascus for an unknown destination earlier on Sunday, two senior Army members said, as militants said they had entered the capital with no sign of Army deployments. Hours later Russian news agencies, citing a Kremlin source, said that Mr. Assad and his family are in Moscow.

The Islamist militants also dealt a major blow to the influence of Russia and Iran in the region, key allies who propped up Mr. Assad during critical moments in the conflict.

As Syrians expressed joy, Prime Minister Mo-

'Indian embassy in Syrian capital operational'

NEW DELHI
Officials of the Indian embassy in Damascus are safe and are in contact with Indians in the strife-hit country, sources here said. "Our embassy continues to remain operational in Damascus. Embassy is in touch with all Indian nationals, and they are safe," said a source in the Ministry of External Affairs.

hammad Ghazi al-Jalali called for free elections so the people could choose who they want.

The HTS was formerly an al-Qaeda affiliate known as the Nusra Front until its leader Abu Mohammed al-Jolani, severed ties with the global jihadist movement in 2016.

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Militants in Syria Capture Damascus as Assad Flees

सीरिया में विद्रोहियों ने दमिश्क पर कब्जा किया, असद फरार

The militant group Hayat Tahrir al-Sham (HTS) declared President Bashar al-Assad's ouster after seizing control of Damascus on Sunday, marking the end of his 13-year rule.

हयात तहरीर अल-शाम (HTS) नामक उग्रवादी समूह ने रविवार को दमिश्क पर कब्जा करने के बाद राष्ट्रपति बशर अल-असद को सत्ता से बेदखल करने की घोषणा की, जिससे उनके 13 वर्षों के शासन का अंत हुआ।

• Mr. Assad fled Damascus to an unknown destination, and later reports indicated he might be in Moscow, as per Russian news agencies.

श्री असद दमिश्क से अज्ञात स्थान पर भाग गए, और बाद में रूसी समाचार एजेंसियों के अनुसार उनके मॉस्को में होने की संभावना जताई गई।

• The HTS dealt a major blow to the influence of Russia and Iran, who had supported Assad throughout the civil war.

HTS ने रूस और ईरान के प्रभाव पर बड़ा आघात किया, जिन्होंने असद का गृहयुद्ध के दौरान समर्थन किया था।

• Syrians celebrated in Damascus, with thousands chanting "Freedom" after the half-century Assad family rule.

सीरियाई लोगों ने दमिश्क में जश्न मनाया, और आधा शताब्दी असद परिवार के शासन के बाद हजारों लोगों ने "आज़ादी" के नारे लगाए।

Call for Free Elections

मुक्त चुनावों की मांग

• Prime Minister Mohammad Ghazi al-Jalali called for free elections to allow Syrians to choose their leaders.

प्रधानमंत्री मोहम्मद गाज़ी अल-जलाली ने मुक्त चुनावों की मांग की ताकि सीरियाई लोग अपने नेता चुन सकें।

• HTS was formerly an al-Qaeda affiliate named Nusra Front but severed ties in 2016 under Abu Mohammed al-Jolani.





HTS पहले अल-कायदा से जुड़ा हुआ समूह था, जिसे नुसरा फ्रंट कहा जाता था, लेकिन इसने 2016 में अबू मोहम्मद अल-जोलेनी के नेतृत्व में संबंध तोड़ लिए।

Prisoners Freed and Regional Impact

कैदियों की रिहाई और क्षेत्रीय प्रभाव

- HTS announced the **end of injustice** in **Sednaya prison**, freeing many prisoners. HTS ने **सदनाया जेल** में अन्याय के अंत और कई कैदियों को रिहा करने की घोषणा की।
- Militants stormed the **Iranian embassy** in Damascus, marking a significant blow to Iran's influence in the region. उग्रवादियों ने दमिश्क में **ईरानी दूतावास** पर हमला किया, जो क्षेत्र में ईरान के प्रभाव के लिए बड़ा झटका था।

Military and Western Response

सैन्य और पश्चिमी प्रतिक्रिया

- The **Syrian Army** announced that Assad's rule had ended but continued operations in **Hama, Homs, and the Deraa countryside**. **सीरियाई सेना** ने घोषणा की कि असद का शासन समाप्त हो गया है, लेकिन **हामा, होम्स और डेरा गामीण क्षेत्र** में अभियान जारी रखे।
- The **U.S.** confirmed its presence in **eastern Syria** to prevent an **ISIS resurgence**, as per Deputy Assistant Secretary of Defense **Daniel Shapiro**. **अमेरिका** ने **पूर्वी सीरिया** में अपनी उपस्थिति बनाए रखने और **आईएसआईएस के पुनरुत्थान** को रोकने की पुष्टि की, जैसा कि उप रक्षा सचिव **डैनियल शापिरो** ने बताया।

Future Challenges

भविष्य की चुनौतियाँ

- Stabilizing western Syria under HTS control will be crucial, with concerns about potential **draconian Islamist rule**. HTS के नियंत्रण में पश्चिमी सीरिया को स्थिर करना महत्वपूर्ण होगा, जिसमें **कट्टरपंथी इस्लामी शासन** की संभावनाओं को लेकर चिंता है।
- Countries like the **UAE and Egypt**, which view **Islamist militant groups** as existential threats, might resist the HTS administration. **यूएई और मिस्र** जैसे देश, जो **इस्लामी उग्रवादी समूहों** को अस्तित्व के लिए खतरा मानते हैं, HTS प्रशासन का विरोध कर सकते हैं।
- **HTS militants have also launched attacks on U.S.-backed Kurdish-led forces in Manbij, signaling potential further instability.** HTS उग्रवादियों ने **मंजिब** में **अमेरिका समर्थित कुर्द नेतृत्व वाली सेनाओं** पर भी हमले शुरू कर दिए हैं, जो संभावित अस्थिरता का संकेत देता है।



Gujarat court acquits ex-IPS officer Sanjiv Bhatt in 1997 case

GS Paper IV: Ethics

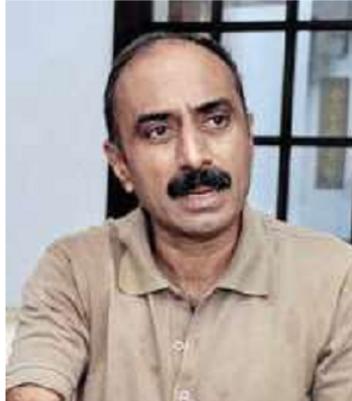
Press Trust of India

PORBANDAR

A court in Porbandar district of Gujarat has acquitted former IPS officer Sanjiv Bhatt in a 1997 custodial torture case, observing that the prosecution could not “prove the case beyond reasonable doubt”.

Additional Chief Judicial Magistrate Mukesh Pandya on Saturday acquitted Mr. Bhatt, the then Superintendent of Police of Porbandar, in a case registered against him under Sections of the Indian Penal Code pertaining to causing grievous hurt to obtain confession and other provisions, by giving him the benefit of the doubt.

He was sentenced to life imprisonment in a 1990 custodial death case in Jamnagar and 20 years in jail in a 1996 case relating



Sanjiv Bhatt

to planting drugs to frame a lawyer in Palanpur. He is lodged in the Rajkot Central Jail.

He is also an accused in a case of alleged fabrication of evidence in connection with the 2002 Gujarat riots cases along with activist Teesta Setalvad and former Gujarat Director-General of Police R.B. Sreekumar.

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imprisonment in a 1990 custodial death case in Jamnagar and 20 years in jail in a 1996 case related to planting drugs to frame a lawyer in Palanpur.

संजीव भट्ट को 1990 के जामनगर हिरासत में मौत के मामले में आजीवन कारावास और 1996 के पलनपुर में एक वकील को फंसाने के लिए ड्रग्स लगाने के मामले में 20 साल की जेल की सजा सुनाई गई थी।

- He is currently lodged in the Rajkot Central Jail. वह वर्तमान में राजकोट सेंट्रल जेल में बंद हैं।

Acquittal of Ex-IPS Officer Sanjiv Bhatt in 1997 Case

1997 के मामले में पूर्व

आईपीएस अधिकारी संजीव

भट्ट की बरी

- A court in Porbandar district of Gujarat acquitted former IPS officer Sanjiv Bhatt in a 1997 custodial torture case, citing the prosecution's failure to “prove the case beyond reasonable doubt.”

गुजरात के पोरबंदर जिले की एक अदालत ने 1997 के हिरासत में प्रताड़ना मामले में पूर्व आईपीएस अधिकारी संजीव भट्ट को बरी कर दिया, यह कहते हुए कि अभियोजन पक्ष “संदेह से परे मामला साबित करने में विफल रहा।”

- Additional Chief Judicial Magistrate Mukesh Pandya acquitted Mr. Bhatt, who was then Superintendent of Police, granting him the benefit of the doubt.

अतिरिक्त मुख्य न्यायिक मजिस्ट्रेट मुकेश पंड्या ने संजीव भट्ट, जो उस समय पुलिस अधीक्षक थे, को संदेह का लाभ देकर बरी कर दिया।

- He was accused under Sections of the Indian Penal Code related to causing grievous hurt to obtain confession and other provisions.

उन पर भारतीय दंड संहिता की धाराओं के तहत स्वीकारोक्ति प्राप्त करने के लिए गंभीर चोट पहुंचाने और अन्य प्रावधानों के तहत आरोप लगाए गए थे।

- Mr. Bhatt was sentenced to life





- He is also an accused in a case of **alleged fabrication of evidence** in the 2002 Gujarat riots cases, along with **activist Teesta Setalvad** and former Gujarat DGP **R.B. Sreekumar**.

वह 2002 के गुजरात दंगों के मामलों में **सबूत गढ़ने के आरोप** में, कार्यकर्ता **तीस्ता सीतलवाड़** और गुजरात के पूर्व डीजीपी **आर.बी. श्रीकुमार** के साथ भी आरोपी हैं।

- The court held that the prosecution could not **prove the complainant was forced to confess** or made to surrender by inflicting pain using **dangerous weapons and threats**.

अदालत ने माना कि अभियोजन पक्ष यह **साबित नहीं कर सका** कि शिकायतकर्ता को **जबरन स्वीकारोक्ति** दिलाई गई या **खतरनाक हथियारों और धमकियों का उपयोग** करके **आत्मसमर्पण करने के लिए मजबूर किया गया**।

- The court noted that the **sanction required to prosecute a public servant had not been obtained in the case**.

अदालत ने यह भी कहा कि **सार्वजनिक सेवक पर मुकदमा चलाने के लिए आवश्यक अनुमति** मामले में प्राप्त नहीं की गई थी।

- The case stemmed from a complaint by **Naran Jadav**, who alleged physical and mental torture in custody.

यह मामला **नरन जादव** की शिकायत से संबंधित था, जिन्होंने हिरासत में **शारीरिक और मानसिक प्रताड़ना का आरोप लगाया था**।

- An FIR was filed following a court's direction on **July 6, 1997**.

अदालत के निर्देश पर **6 जुलाई 1997** को प्राथमिकी दर्ज की गई थी।

- The incident involved **alleged electric shocks** given to Mr. Jadav and his son after being brought to Mr. Bhatt's residence in Porbandar.

घटना में, **नरन जादव और उनके बेटे को कथित रूप से बिजली के झटके दिए गए थे**, जब उन्हें **पोरबंदर में संजीव भट्ट के निवास पर लाया गया**।

- A case was registered on **December 31, 1998**, and a summons was issued to Mr. Bhatt and constable Vajubhai Chau.

31 दिसंबर 1998 को मामला दर्ज किया गया और **संजीव भट्ट और कांस्टेबल वाजुभाई चौ** को **समन जारी किया गया**।

- On **April 15, 2013**, the court ordered an FIR against the duo.

15 अप्रैल 2013 को अदालत ने इस जोड़ी के खिलाफ प्राथमिकी दर्ज करने का आदेश दिया।



Syria crisis: Syriac Orthodox Church head cuts short Kerala visit, to fly back tomorrow

GS Paper I: A&C
The Hindu Bureau

KOCHI

The Patriarch of Antioch and head of the Syriac Orthodox Church Ignatius Aphrem II has cut short a visit to Kerala to fly back to Lebanon in view of the civil war that has engulfed Syria.

The Patriarch, who arrived on Saturday, was earlier scheduled to remain in Kerala up to December 17. But Jacobite Church sources said the Patriarch will



Patriarch of Antioch had arrived in Kochi on Saturday.

now leave Kerala on Tuesday.

Church sources also said

that though a new Catholicos Joseph Mor Gregorios has been declared to head the Jacobite Syrian Orthodox Church in India, he will be consecrated at a later date.

The Patriarch quashed rumours that the new Catholicos may be consecrated before the Patriarch leaves for Lebanon. Joseph Mor Gregorios will succeed Catholicos Baselios Thomas I, former head of the Jacobite Church in India, who

passed away on October 31.

The main reason for the Patriarch's visit to Kerala, was to participate in the 40th day memorial of Catholicos Baselios Thomas I.

Memorial services

The memorial services are scheduled for Monday. The Patriarch will deliver the keynote address at the memorial meeting after a solemn memorial mass at the Patriarchal Centre in Puthenkuris near Kochi.

Syria Crisis: Syriac Orthodox Church Head Cuts Short Kerala Visit, to Fly Back Tomorrow

सीरिया संकट: सिरिएक ऑर्थोडॉक्स चर्च के प्रमुख ने केरल यात्रा को छोटा किया, कल वापस लौटेंगे

- The **Patriarch of Antioch** and head of the **Syriac Orthodox Church, Ignatius Aphrem II**, has shortened his visit to **Kerala** and will fly back to **Lebanon** due to the civil war in **Syria**.
एंटीओक के पितृसत्ता और सिरिएक ऑर्थोडॉक्स चर्च के प्रमुख इग्नाटियस अफ्रेम द्वितीय ने सीरिया में गृह युद्ध के कारण केरल यात्रा को छोटा कर लेबनान वापस लौटने का निर्णय लिया।
- The **Patriarch**, who arrived on **Saturday**, was initially scheduled to stay in **Kerala** until **December 17**, but now he will leave on **Tuesday**.
पितृसत्ता, जो शनिवार को आए थे, पहले केरल में 17 दिसंबर तक रुकने वाले थे, लेकिन अब वे मंगलवार को वापस लौटेंगे।
- **Jacobite Church** sources confirmed that although **Joseph Mor Gregorios** has been declared as the new **Catholicos**, his consecration will take place at a later date.
जैकोबाइट चर्च के सूत्रों ने पुष्टि की कि जोसेफ मोर ग्रेगोरियस को नए कैथोलिकोस के रूप में घोषित किया गया है, लेकिन उनका अभिषेक बाद में किया जाएगा।
- The **Patriarch** dismissed rumors that **Joseph Mor Gregorios** might be consecrated before he departs for **Lebanon**.





पितृसत्ता ने इन अफवाहों को खारिज कर दिया कि जोसेफ मोर ग्रेगोरियस का अभिषेक उनके लेबनान रवाना होने से पहले किया जाएगा।

- **Joseph Mor Gregorios will succeed Catholicos Baselios Thomas I, who passed away on October 31.**

जोसेफ मोर ग्रेगोरियस कैथोलिकोस बेसलियोस थॉमस प्रथम के उत्तराधिकारी होंगे, जिनका निधन 31 अक्टूबर को हुआ था।

- The primary reason for the **Patriarch's visit to Kerala** was to attend the **40th day memorial service of Catholicos Baselios Thomas I.**

पितृसत्ता की केरल यात्रा का मुख्य कारण कैथोलिकोस बेसलियोस थॉमस प्रथम की 40वीं दिन की स्मृति सेवा में भाग लेना था।

Memorial Services

स्मृति सेवा

- The **memorial services** are scheduled for **Monday**.
स्मृति सेवा सोमवार को आयोजित की जाएगी।
- The **Patriarch** will deliver the keynote address at the **memorial meeting** after the **solemn memorial mass** at the **Patriarchal Centre in Puthenkurusu near Kochi**.
पितृसत्ता स्मृति सभा में मुख्य भाषण देंगे, जो कोच्चि के पास पुथेनकुरिसु के पितृसत्ता केंद्र में आयोजित होगी।

The **Syriac Orthodox Church**, also known as the **Syrian Orthodox Church**, is one of the world's oldest Christian denominations, tracing its origins to the early Christian community in Antioch, where followers of Jesus were first called Christians (Acts 11:26).

सीरियाक ऑर्थोडॉक्स चर्च, जिसे **सिरियन ऑर्थोडॉक्स चर्च** भी कहा जाता है, दुनिया के सबसे पुराने ईसाई संप्रदायों में से एक है। इसकी उत्पत्ति एंटीओक (जहां यीशु के अनुयायियों को पहली बार ईसाई कहा गया) में प्रारंभिक ईसाई समुदाय से हुई (प्रेरितों के काम 11:26)।

It is part of the Oriental Orthodox communion and has a rich heritage rooted in the ancient traditions of Eastern Christianity.

यह ओरिएंटल ऑर्थोडॉक्स संघ का हिस्सा है और इसकी विरासत प्राचीन पूर्वी ईसाई परंपराओं में गहराई से निहित है।

Historical Background

- **Foundation and Early History:** The church's foundation is traditionally attributed to **St. Peter**, who established the patriarchate in Antioch around **A.D. 37**. This makes it one of the earliest Christian communities.

चर्च की स्थापना परंपरागत रूप से **संत पीटर** को मानी जाती है, जिन्होंने लगभग **37 ईस्वी** में एंटीओक में पैट्रिआर्केट की स्थापना की। यह इसे प्रारंभिक ईसाई समुदायों में से एक बनाता है।

- **Councils and Schisms:** The Syriac Orthodox Church adheres to the teachings of the first three ecumenical councils: **Nicea (A.D. 325)**, **Constantinople (A.D. 381)**, and





Ephesus (A.D. 431). However, it rejected the **Council of Chalcedon (A.D. 451)**, leading to a significant schism and the formation of the Oriental Orthodox communion. सीरियाक ऑर्थोडॉक्स चर्च पहले तीन महासभाओं की शिक्षाओं का पालन करता है: **नाइसिया (325 ईस्वी)**, **कॉन्स्टेंटिनोपल (381 ईस्वी)** और **एफेसस (431 ईस्वी)**। हालांकि, इसने **काउंसिल ऑफ चैल्सेडन (451 ईस्वी)** को अस्वीकार कर दिया, जिससे एक बड़ा विभाजन और ओरिएंटल ऑर्थोडॉक्स संघ का निर्माण हुआ।

Doctrine and Liturgy

- **Christology:** The church upholds **Miaphysitism**, teaching that in the one person of Jesus Christ, divinity and humanity are united in one "nature" (physis) without separation, confusion, or alteration.

चर्च **मियाफिसिज्म** को मानता है, जो यह सिखाता है कि यीशु मसीह के एक व्यक्ति में दिव्यता और मानवता बिना किसी अलगाव, भ्रम या परिवर्तन के एक "स्वभाव" (फिसिस) में संयुक्त हैं।

- **Liturgy:** The Syriac Orthodox Church uses the **West Syriac Rite**, with the **Liturgy of Saint James** being central to its worship. Services are traditionally conducted in **Classical Syriac**, a dialect of Aramaic, though vernacular languages are also used in various regions.

सीरियाक ऑर्थोडॉक्स चर्च **वेस्ट सीरियाक रीति** का उपयोग करता है, जिसमें **संत जेम्स की पूजा पद्धति** इसकी आराधना का केंद्र है। सेवाएं परंपरागत रूप से **क्लासिकल सीरियाक**, अरामाइक की एक बोली, में आयोजित की जाती हैं, हालांकि विभिन्न क्षेत्रों में स्थानीय भाषाओं का भी उपयोग होता है।

Global Presence

- The church's historical stronghold includes regions of present-day **Syria, Iraq, Turkey, and Lebanon**. However, due to political turmoil and conflicts, many adherents have emigrated.

चर्च का ऐतिहासिक केंद्र आज के **सीरिया, इराक, तुर्की, और लेबनान** क्षेत्रों में है। हालांकि, राजनीतिक उथल-पुथल और संघर्षों के कारण, कई अनुयायी पलायन कर चुके हैं।

- In India, the **Jacobite Syrian Christian Church** is an integral part of the Syriac Orthodox Church, with the **Patriarch of Antioch** as its supreme head. The local head in Malankara (Kerala) is **Baselios Thomas I**, ordained in 2002. The headquarters is located at **Puthencruz**, near Ernakulam, Kerala.

भारत में, **जैकोबाइट सिरियन क्रिश्चियन चर्च** सीरियाक ऑर्थोडॉक्स चर्च का एक अभिन्न हिस्सा है, जिसमें **एंटीओक के पैट्रिआर्क** इसके सर्वोच्च प्रमुख हैं। मलांकरा (केरल) में स्थानीय प्रमुख **बेसलियाँस थॉमस I** हैं, जिन्हें 2002 में अभिषेकित किया गया था। इसका मुख्यालय केरल के एर्नाकुलम के पास **पुथेनकुरुज़** में स्थित है।

- Significant Syriac Orthodox communities exist in **Europe, North America, and Australia**, established primarily due to migration in the 20th and 21st centuries.





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यूरोप, उत्तर अमेरिका, और ऑस्ट्रेलिया में महत्वपूर्ण सीरियाक ऑर्थोडॉक्स समुदाय हैं, जो मुख्य रूप से 20वीं और 21वीं सदी में प्रवास के कारण स्थापित हुए।

Recent Developments

- The current Patriarch of Antioch and head of the Syriac Orthodox Church is **Ignatius Aphrem II**, enthroned in **2014**.
एंटीओक के वर्तमान पैट्रिआर्क और सीरियाक ऑर्थोडॉक्स चर्च के प्रमुख **इग्नाटियस अफ्रेम II** हैं, जिनका सिंहासनारोहण **2014** में हुआ।
- The church actively engages in ecumenical dialogues with other Christian denominations to promote unity and address common challenges.
चर्च अन्य ईसाई संप्रदायों के साथ एकता को बढ़ावा देने और सामान्य चुनौतियों का समाधान करने के लिए सक्रिय रूप से वार्ता में शामिल है।





Death by water

Governments need to ensure safety of piped water while widening coverage

As policymakers prioritise universal access to potable water, the death of three persons last week in Chennai due to suspected consumption of contaminated piped water is a reminder that coverage is not the only problem: even urban centres with a long history of piped supply are still not assured of potable water that is free from dangerous contamination. The incident, which involved drinking water supplied through the State agency in suburban Pallavaram, also sent 34 people to hospital with complaints of diarrhoea. The laboratory test reports of local water samples are yet to be made public, and it may be too early to blame the agency. Nonetheless, the remarks of State Minister T.M. Anbarasan, accusing the affected people of not maintaining hygiene in their surroundings, come across as insensitive and irresponsible. Irrespective of the cause, it is concerning that severe contamination of water continues to occur with greater periodicity in cities in India. In the past six months, large-scale outbreaks of health episodes due to consumption of water containing *E.coli* have been reported in cities including Bengaluru, Kochi, Noida and Vizianagaram. This exposes the challenge of catering to the basic needs of people, who are increasingly shifting to cities and living in congested environs, putting the water and drainage infrastructure under strain.

Governments face a challenge in providing safe drinking water in a tropical country such as India. Data from the Jal Shakti Ministry show that arsenic has been detected in groundwater in parts of 230 districts in 25 States and fluoride in 469 districts in 27 States. In 2022, according to the World Health Organization, at least 1.7 billion people, globally, used a drinking water source contaminated with faeces. Worldwide, an estimated one million people die annually from diarrhoea caused by unsafe drinking water, sanitation and hand hygiene. In 2010, the United Nations General Assembly had explicitly recognised the human right to water and sanitation. Towards this end, addressing the issue of chemical pollution of groundwater is also non-negotiable. Tamil Nadu Chief Minister M.K. Stalin is cognisant of this. Ahead of the last Assembly elections, he had unveiled his 10-year vision statement for seven priority areas to facilitate development of Tamil Nadu. This included promises to increase the annual per capita drinking water supply from nine lakh litres to 10 lakh litres; reduce wastage of water from 50% to 15%; and increase distribution of recycled water from 5% to 20%. Now, he needs to walk the talk, especially in terms of supplying safe drinking water.

Death by Water

पानी से मौत

• As policymakers prioritise universal access to **potable water**, the death of three persons last week in **Chennai** due to suspected consumption of contaminated piped water highlights that coverage is not the only problem.

जैसे-जैसे नीति-निर्माता सभी के लिए पीने के पानी की उपलब्धता को प्राथमिकता देते हैं, चेन्नई में पिछले हफ्ते दूषित पाइप जल के कारण तीन व्यक्तियों की मौत यह दर्शाती है कि कवरेज ही एकमात्र समस्या नहीं है।

• Even urban centres with a long history of piped supply are still not assured of potable water free from dangerous contamination.

यहां तक कि जिन शहरी क्षेत्रों में लंबे समय से पाइप जल आपूर्ति है, वहां भी सुरक्षित और दूषित-मुक्त पानी की गारंटी नहीं है।

• The incident in suburban **Pallavaram** also sent **34 people** to hospital with **diarrhoea** complaints.

पल्लवरम के उपनगर में हुई इस घटना से 34 लोग दस्त की शिकायत के साथ अस्पताल में भर्ती हुए।

• Laboratory test reports of local water samples are yet to be made public, and it may be too early to blame the agency.

स्थानीय जल नमूनों की प्रयोगशाला रिपोर्ट अभी सार्वजनिक नहीं हुई है, और एजेंसी को दोष देना अभी जल्दबाजी होगी।

• State Minister **T.M. Anbarasan's** remarks blaming the affected people for not maintaining hygiene in their surroundings were insensitive and irresponsible.

राज्य मंत्री टी.एम. अंबारासन द्वारा प्रभावित लोगों को उनके आसपास सफाई न रखने के लिए दोष देना संवेदनहीन और गैर-जिम्मेदाराना था।

• Severe contamination of water occurs frequently in cities across India, as seen in the past six months in **Bengaluru, Kochi, Noida, and Vizianagaram**, where *E.coli* outbreaks were reported.

भारत के शहरों में पानी का गंभीर प्रदूषण अक्सर होता है, जैसा कि पिछले छह महीनों में बंगलुरु, कोच्चि, नोएडा, और विजयनगरम में ई.कोलाई संक्रमण के मामलों से देखा गया।

• **Congested urban environments** put water and drainage infrastructure under strain, highlighting the challenges of providing basic needs.

भीड़-भाड़ वाले शहरी क्षेत्रों में पानी और जल निकासी के बुनियादी ढांचे पर दबाव बढ़ता है, जिससे बुनियादी आवश्यकताएं प्रदान करना चुनौतीपूर्ण हो जाता है।





Diarrhoea

- Diarrhoea is a common medical condition characterized by the frequent passage of loose, watery stools.
- It is both a health and social concern due to its high prevalence and potential for severe outcomes, especially among children in developing countries like India.
- Diarrhoea is defined as the passage of three or more loose or liquid stools per day.
दस्त को दिन में तीन या उससे अधिक बार ढीले या तरल मल त्याग के रूप में परिभाषित किया जाता है।

- **Types:**

- Acute Diarrhoea: Lasts for a few days and is typically caused by infections.
- Persistent Diarrhoea: Persists for more than 14 days.
- Chronic Diarrhoea: Lasts longer than a month and may indicate underlying conditions like irritable bowel syndrome (IBS) or inflammatory bowel disease (IBD).

प्रकार:

- तीव्र दस्त: कुछ दिनों तक रहता है और आमतौर पर संक्रमण के कारण होता है।
- लगातार दस्त: 14 दिनों से अधिक समय तक रहता है।
- क्रोनिक दस्त: एक महीने से अधिक समय तक रहता है और आंतों की समस्याओं जैसे इरिटेबल बॉवेल सिंड्रोम (IBS) या इंफ्लेमेटरी बॉवेल डिजीज (IBD) का संकेत हो सकता है।

Causes of Diarrhoea

- **Infections:** Caused by bacteria (e.g., E. coli, Salmonella), viruses (e.g., rotavirus), or parasites (e.g., Giardia).
संक्रमण: बैक्टीरिया (जैसे, ई. कोलाई, सालमोनेला), वायरस (जैसे, रोटावायरस), या परजीवी (जैसे, जिआर्डिया) के कारण।
- **Contaminated Water and Food:** Consumption of unsafe water or improperly cooked food.
प्रदूषित पानी और भोजन: असुरक्षित पानी या सही तरीके से पकाए गए भोजन का सेवन।
- **Malabsorption Disorders:** Conditions like lactose intolerance or celiac disease.
कुपोषण संबंधी विकार: जैसे लैक्टोज असहिष्णुता या सीलिएक रोग।
- **Medications:** Side effects of antibiotics or certain drugs.
दवाइयाँ: एंटीबायोटिक्स या कुछ दवाओं के साइड इफेक्ट।
- **Underlying Diseases:** Conditions like Crohn's disease or cancer.
मूलभूत रोग: जैसे क्रोहन रोग या कैंसर।

Symptoms and Complications

- **Symptoms:** Watery stools, abdominal pain, fever, and dehydration.
लक्षण: तरल मल, पेट दर्द, बुखार, और निर्जलीकरण।





- **Complications:** Severe dehydration, malnutrition, and in extreme cases, death.
जटिलताएँ: गंभीर निर्जलीकरण, कुपोषण, और गंभीर मामलों में मृत्यु।

Epidemiology and Global Impact

- According to WHO, diarrhoea is the second leading cause of death among children under five.
डब्ल्यूएचओ के अनुसार, दस्त पाँच साल से कम उम्र के बच्चों में मृत्यु का दूसरा प्रमुख कारण है।
- In India, diarrhoea accounted for **13% of deaths among children under five** in 2020 (UNICEF Report).
भारत में, दस्त ने 2020 में पाँच साल से कम उम्र के बच्चों में **13% मौतों** के लिए योगदान दिया (यूनिसेफ रिपोर्ट)।

Prevention and Management

- **Hygiene and Sanitation:** Use of clean water, improved sanitation, and handwashing with soap.
स्वच्छता और स्वच्छता: स्वच्छ पानी का उपयोग, बेहतर स्वच्छता, और साबुन से हाथ धोना।
- **Vaccination:** **Rotavirus vaccines** are effective in reducing diarrhoea-related deaths.
टीकाकरण: रोटावायरस के टीके दस्त से संबंधित मौतों को कम करने में प्रभावी हैं।
- **Oral Rehydration Therapy (ORT):** Administering **oral rehydration salts (ORS)** with clean water.
ओरल रिहाइडेशन थेरेपी (ORT): स्वच्छ पानी के साथ ओआरएस देना।
- **Zinc Supplementation:** Recommended during diarrhoea episodes to enhance recovery.
जिंक अनुपूरण: दस्त के दौरान तेजी से सुधार के लिए अनुशंसित।

Recent Updates and Initiatives

- **National Diarrhoea Control Programme:** A government initiative under the Ministry of Health and Family Welfare, aiming to reduce diarrhoea-related child mortality.
राष्ट्रीय दस्त नियंत्रण कार्यक्रम: स्वास्थ्य और परिवार कल्याण मंत्रालय के तहत एक सरकारी पहल, जिसका उद्देश्य बच्चों में दस्त से संबंधित मृत्यु दर को कम करना है।
- **Intensified Diarrhoea Control Fortnight (IDCF):** Launched annually in India to raise awareness and provide interventions like ORS and zinc tablets.
गहन दस्त नियंत्रण पखवाड़ा (IDCF): भारत में सालाना शुरू किया गया जागरूकता अभियान जिसमें ओआरएस और जिंक टैबलेट्स जैसी सहायता प्रदान की जाती है।
- **Swachh Bharat Mission:** Contributed significantly to reducing diarrhoea cases by improving sanitation facilities.
स्वच्छ भारत मिशन: स्वच्छता सुविधाओं में सुधार करके दस्त के मामलों को कम करने में महत्वपूर्ण योगदान दिया।





Challenges in Providing Safe Drinking Water सुरक्षित पीने के पानी की आपूर्ति में चुनौतियां

India faces challenges in ensuring safe drinking water due to its tropical climate.

उष्णकटिबंधीय जलवायु के कारण भारत में सुरक्षित पेयजल सुनिश्चित करने में चुनौतियां हैं।

- **Arsenic contamination affects groundwater in 230 districts across 25 States, and fluoride affects groundwater in 469 districts across 27 States (Jal Shakti Ministry).**
आर्सेनिक प्रदूषण भारत के 25 राज्यों के 230 जिलों के भूजल को प्रभावित करता है और फ्लोराइड 27 राज्यों के 469 जिलों के भूजल को प्रभावित करता है (जल शक्ति मंत्रालय)।
- The **World Health Organization (WHO)** reported in **2022** that **1.7 billion people globally used drinking water contaminated with faeces.**
विश्व स्वास्थ्य संगठन (WHO) ने 2022 में बताया कि विश्वभर में 1.7 अरब लोग मल से प्रदूषित पेयजल का उपयोग कर रहे थे।
- Annually, **one million people die globally from diarrhoea caused by unsafe drinking water, sanitation, and hygiene.**
हर साल, असुरक्षित पीने के पानी, स्वच्छता, और सफाई के कारण 10 लाख लोगों की मृत्यु होती है।
- In **2010**, the **United Nations General Assembly** explicitly recognised **water and sanitation as a human right.**
2010 में, संयुक्त राष्ट्र महासभा ने पानी और स्वच्छता को मानव अधिकार के रूप में मान्यता दी।

Tamil Nadu's Vision for Safe Drinking Water तमिलनाडु का सुरक्षित पेयजल के लिए दृष्टिकोण

- Tamil Nadu CM **M.K. Stalin** promised in his **10-year vision statement** to:
तमिलनाडु के मुख्यमंत्री एम.के. स्टालिन ने अपने 10-वर्षीय दृष्टिकोण बयान में वादा किया:
 - Increase **annual per capita drinking water supply** from **9 lakh litres** to **10 lakh litres.**
वार्षिक प्रति व्यक्ति पेयजल आपूर्ति को 9 लाख लीटर से 10 लाख लीटर तक बढ़ाना।
 - Reduce **water wastage** from **50%** to **15%.**
जल अपव्यय को 50% से घटाकर 15% करना।
 - Increase distribution of **recycled water** from **5%** to **20%.**
पुनर्नवीनीकरण जल वितरण को 5% से बढ़ाकर 20% करना।
- Now, the Tamil Nadu government must **walk the talk**, ensuring the supply of safe drinking water.
अब, तमिलनाडु सरकार को अपने वादों को पूरा करना होगा, और सुरक्षित पेयजल की आपूर्ति सुनिश्चित करनी होगी।



The issue of India's economic growth versus emissions

GS Paper III: Environment

The Indian economy has consistently showcased its robust growth over the past few decades. But higher economic growth is believed to have come with increasing environmental pressure, notably through higher greenhouse gas (GHG) emissions. However, India's Economic Survey (2023-24) claims that India has decoupled its economic growth from GHG emissions, as between 2005 and 2019, India's GDP grew at a compound annual growth rate (CAGR) of 7%, while emissions rose at a CAGR of just 4%. This raises a crucial question: has India really decoupled its economic growth from GHG emissions? And, what does this mean for sustainable development?

What it means

Decoupling refers to breaking the link between economic growth and environmental degradation. Historically, economic growth is found to be positively related with environmental degradation, as this growth is believed to be a driver of GHG emissions. However, with the growing climate crisis, the imperative to reduce emissions while ensuring continued economic growth has gained global traction.

Decoupling has largely been classified into two types: absolute decoupling and relative decoupling. Absolute decoupling occurs when the economy grows, while emissions decrease. This is the ideal form of decoupling, where countries grow economically without increasing environmental harm. However, relative decoupling happens when both GDP and emissions grow, but the rate of GDP growth surpasses the rate of emissions growth. While this signifies progress, at the same time, it acknowledges that emissions continue to rise.

Decoupling of economic growth and GHG emissions is important. On one hand, it offers a



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A look at the claim made in the Economic Survey (2023-24), of India having decoupled its economic growth from greenhouse gas emissions

path to sustainable growth and development, a way for nations to grow and improve living standards without exacerbating climate change. On the other, it comes as a response to rising demand for degrowth and sparks the ongoing debate between green growth and degrowth. Proponents of green growth argue that it is possible to maintain or even increase economic growth while reducing environmental harm. In contrast, degrowth advocates suggest that economic growth itself is the primary driver of ecological degradation and should be curbed in favour of reducing resource consumption. But proponents of degrowth overlook the fact that countries, in addition to tackling rising GHG emissions and the climate change, are also required to tackle low standards of living, energy poverty and ensure a decent life, which could be taken care of through economic growth.

The claim

The claim of India's decoupling made in the Economic Survey comes from comparing GDP and emissions growth rates between 2005 and 2019. The Survey does not specify whether this represents absolute or relative decoupling. Using various decoupling indicators discussed in OECD (2002), we examine the status of the economy-wide and sector-wise decoupling status for India. Since the 1990s, with significant trade liberalisation, India has been experiencing steady and stable economic growth. Hence, we are examining how GDP and emission generation are growing in India with respect to the levels of 1990. While there has been no absolute decoupling in India, since 1990, GDP in India has grown at a much higher pace than the GHG emissions in the country, indicating economy-wide relative decoupling. Since, the agriculture and manufacturing sectors are among

the major contributors of emission generation in India, it is also important to understand whether these sectors have also achieved decoupling or not, which has been assessed by comparing rate of growth of GVA of the respective sector with the rate of growth of GHGs emitted by the sector. From 1990, India's GDP has grown six-fold, while GHG emissions have only tripled.

Efforts must continue

From the data, it seems that India may have achieved relative decoupling, where emissions are still rising but at a slower pace than the economy. This achievement, while commendable, falls short of the ultimate goal of absolute decoupling, where economic growth can continue even as emissions fall. While most countries fall short of achieving absolute decoupling and still experience rising emissions as GDP increases, many countries have at least managed to achieve a declining rate of growth of emissions. Given that India is a developing country which has not even peaked its emissions yet, emissions are expected to increase with economic growth. Hence, achieving absolute decoupling is not going to happen anytime soon. While India's relative decoupling is a step in the right direction, the path to absolute decoupling is still a long and complex journey. Efforts must still be taken and it will be a significant challenge. This remains a necessary target if India is to meet its long-term climate commitments. Policies and measures that support renewable energy, emission mitigation, and sustainable development will be crucial in ensuring that economic growth and environmental preservation can coexist, ensuring a prosperous and sustainable future for India.

The views expressed are personal

The Issue of India's Economic Growth Versus Emissions

भारत की आर्थिक वृद्धि बनाम उत्सर्जन का मुद्दा

The Indian economy has consistently showcased its robust growth over the past few decades.

भारतीय अर्थव्यवस्था ने पिछले कुछ दशकों में लगातार अपनी मजबूत वृद्धि का प्रदर्शन किया है।

- Higher economic growth is believed to have come with increasing environmental pressure, notably through higher greenhouse gas (GHG) emissions. उच्च आर्थिक वृद्धि के साथ पर्यावरणीय दबाव, विशेष रूप से ग्रीनहाउस गैस (GHG) उत्सर्जन में वृद्धि के माध्यम से, जुड़ा माना जाता है।
- India's Economic Survey (2023-24) claims that India has decoupled its economic growth from GHG emissions. Between 2005 and 2019, India's GDP grew at a compound annual growth rate (CAGR) of 7%, while emissions rose at a CAGR of 4%.





भारत के आर्थिक सर्वेक्षण (2023-24) में दावा किया गया है कि भारत ने अपनी आर्थिक वृद्धि को GHG उत्सर्जन से अलग कर दिया है। 2005 से 2019 के बीच, भारत की GDP ने 7% की संवृद्धि वार्षिक वृद्धि दर (CAGR) दर्ज की, जबकि उत्सर्जन की वृद्धि दर 4% रही।

- **This raises a crucial question: has India really decoupled its economic growth from GHG emissions? And, what does this mean for sustainable development?** यह एक महत्वपूर्ण सवाल उठाता है: क्या भारत ने वास्तव में अपनी आर्थिक वृद्धि को GHG उत्सर्जन से अलग कर लिया है? और, इसका सतत विकास के लिए क्या अर्थ है?

What It Means

इसका क्या मतलब है

- **Decoupling refers to breaking the link between economic growth and environmental degradation.** डिकपलिंग का अर्थ आर्थिक वृद्धि और पर्यावरणीय क्षरण के बीच संबंध को तोड़ना है।
- **Historically, economic growth is positively related to environmental degradation, as this growth is believed to drive GHG emissions.** ऐतिहासिक रूप से, आर्थिक वृद्धि का पर्यावरणीय क्षरण से सकारात्मक संबंध पाया गया है क्योंकि यह वृद्धि GHG उत्सर्जन को बढ़ावा देती है।
- **With the growing climate crisis, reducing emissions while ensuring economic growth has gained global traction.** जलवायु संकट बढ़ने के साथ, उत्सर्जन को कम करना और आर्थिक वृद्धि सुनिश्चित करना वैश्विक ध्यान का विषय बन गया है।

Types of Decoupling

डिकपलिंग के प्रकार

- **Absolute Decoupling:** The economy grows, while emissions decrease. **संपूर्ण डिकपलिंग:** अर्थव्यवस्था बढ़ती है, जबकि उत्सर्जन घटता है।
- **Relative Decoupling:** Both GDP and emissions grow, but GDP grows at a faster rate than emissions. **सापेक्ष डिकपलिंग:** GDP और उत्सर्जन दोनों बढ़ते हैं, लेकिन GDP की वृद्धि दर उत्सर्जन की वृद्धि दर से अधिक होती है।

Importance of Decoupling

डिकपलिंग का महत्व

- **Decoupling offers a path to sustainable growth, allowing nations to grow economically without exacerbating climate change.** डिकपलिंग सतत वृद्धि का मार्ग प्रदान करता है, जिससे राष्ट्र आर्थिक रूप से बढ़ सकते हैं बिना जलवायु परिवर्तन को बढ़ाए।





- It also addresses the ongoing debate between **green growth and degrowth**.
यह हरित वृद्धि और अवृद्धि के बीच चल रही बहस को भी संबोधित करता है।
- **Proponents of green growth** argue that it is possible to maintain or even increase economic growth while reducing environmental harm.
हरित वृद्धि के समर्थकों का तर्क है कि पर्यावरणीय हानि को कम करते हुए आर्थिक वृद्धि बनाए रखना या बढ़ाना संभव है।
- **Degrowth advocates** suggest curbing economic growth in favor of reducing resource consumption.
अवृद्धि के समर्थक संसाधन खपत को कम करने के पक्ष में आर्थिक वृद्धि को रोकने की बात करते हैं।
- However, **degrowth proponents overlook the need to tackle low living standards and energy poverty, which require economic growth**.
हालांकि, अवृद्धि समर्थक निम्न जीवन स्तर और ऊर्जा गरीबी जैसी समस्याओं को नजरअंदाज करते हैं, जिन्हें आर्थिक वृद्धि के माध्यम से संबोधित किया जा सकता है।

The Claim

दावा

- The claim of India's decoupling is made in the **Economic Survey (2023-24)** by comparing GDP and emissions growth rates between **2005 and 2019**.
भारत के डिकप्लिंग का दावा **आर्थिक सर्वेक्षण (2023-24)** में **2005 और 2019** के बीच जीडीपी और उत्सर्जन की वृद्धि दरों की तुलना करके किया गया है।
- The survey does not specify whether this represents **absolute or relative decoupling**.
सर्वेक्षण यह स्पष्ट नहीं करता कि यह **पूर्ण या सापेक्ष डिकप्लिंग** को दर्शाता है।
- Using decoupling indicators from **OECD (2002)**, the **economy-wide and sector-wise decoupling status for India was assessed**.
OECD (2002) के डिकप्लिंग संकेतकों का उपयोग करके भारत की अर्थव्यवस्था और क्षेत्रीय डिकप्लिंग की स्थिति का मूल्यांकन किया गया।
- Since the **1990s**, with significant **trade liberalisation**, India has experienced steady economic growth, and GDP has grown at a much higher pace than GHG emissions.
1990 के दशक से, प्रमुख व्यापार उदारीकरण के साथ, भारत ने स्थिर आर्थिक विकास का अनुभव किया है, और जीडीपी की वृद्धि ग्रीनहाउस गैस उत्सर्जन की तुलना में अधिक तेजी से हुई है।
- **From 1990, India's GDP has grown six-fold, while GHG emissions have only tripled**.
1990 से, भारत का जीडीपी छह गुना बढ़ा है, जबकि ग्रीनहाउस गैस उत्सर्जन केवल तीन गुना हुआ है।

Efforts Must Continue

प्रयास जारी रखने होंगे

- India may have achieved **relative decoupling**, where emissions are still rising but at a slower pace than the economy.





भारत ने सापेक्ष डिकप्लिंग हासिल किया हो सकता है, जहां उत्सर्जन अभी भी बढ़ रहा है लेकिन अर्थव्यवस्था की तुलना में धीमी गति से।

- This is commendable but falls short of **absolute decoupling**, where economic growth continues even as emissions decline.

यह प्रशंसनीय है लेकिन पूर्ण डिकप्लिंग से कम है, जहां आर्थिक विकास उत्सर्जन में गिरावट के बावजूद जारी रहता है।

- Most countries, including India, experience rising emissions with GDP growth, but some have achieved a **declining rate of emissions growth**.

भारत सहित अधिकांश देशों में जीडीपी वृद्धि के साथ उत्सर्जन बढ़ता है, लेकिन कुछ ने उत्सर्जन वृद्धि दर में गिरावट हासिल की है।

- **India, as a developing country, has not peaked its emissions yet, and they are expected to increase with economic growth.**

एक विकासशील देश के रूप में भारत ने अभी तक अपने उत्सर्जन में चरम सीमा हासिल नहीं की है, और यह आर्थिक विकास के साथ बढ़ने की उम्मीद है।

- Achieving **absolute decoupling** will take significant time and effort but is necessary for meeting long-term **climate commitments**.

पूर्ण डिकप्लिंग प्राप्त करने में काफी समय और प्रयास लगेगा, लेकिन यह दीर्घकालिक जलवायु प्रतिबद्धताओं को पूरा करने के लिए आवश्यक है।

- Policies that support **renewable energy**, **emission mitigation**, and **sustainable development** are crucial for balancing economic growth with environmental preservation.

नवीकरणीय ऊर्जा, उत्सर्जन न्यूनीकरण, और सतत विकास का समर्थन करने वाली नीतियां आर्थिक विकास और पर्यावरण संरक्षण के संतुलन के लिए महत्वपूर्ण हैं।





Gamify India's skilling initiatives

GS Paper III: Unemployment

The problem of unemployment has become a contentious issue in economic policy discussions in India in recent times. Economic Survey 2023-24 estimated that India needs to create 78.5 lakh new jobs in the non-farm sector annually until 2030 to meet the demands of the rising workforce. One of the policy prescriptions often suggested to overcome the unemployment challenge is to close the growing gap between the skill sets of job seekers and the skill requirements of the industry.

India's skilling challenge

Over time, India has established a comprehensive institutional and policy framework for training and skilling. However, the success of this is somewhat limited. The Periodic Labour Force Survey 2022-23 identified that only 21% of the Indian youth aged 15-29 years had received vocational/technical training through formal and informal sources. The share of youth who had received formal vocational/technical training was 4.4% in 2022-23. The Chief Economic Advisor, V. Anantha Nageswaran, recently stated that only 51% of India's graduates are employable. These facts raise concerns regarding the reach, quality, and industry relevance of existing skilling programmes. Incidentally, one of the focus areas of the Prime Minister's package for employment and skilling announced in the 2024-25 Budget was improving the outcome and quality of skilling and aligning the training content and design to the skill needs of the industry.

The enormity of India's skilling challenge is further aggravated by the need to equip the workforce with skills and knowledge that meet the requirements of industry 4.0 (I4.0), which entails integrating advanced technologies such as artificial intelligence, robotics, the internet of things, and big data to do smart manufacturing. Over two-thirds of Indian manufacturers are expected to embrace digital

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Gamified and simulation-based learning and training modules can potentially improve the quality and outcome of workforce training

transformation by 2025.

Government policy support has been given to prepare the industry for I4.0 through the SAMARTH Udyog Bharat 4.0 initiative. But according to estimates, only 1.5% of Indian engineers possess the skills for new-age jobs. Sixty percent of the Indian MSME workforce lacks the new-age digital skills. So, it becomes crucial to skill and upskill our workforce according to I4.0 needs.

A new initiative

India could consider incorporating gamified and simulation-based learning and training modules. While gamified learning incorporates game elements into skill training, simulation-based learning uses virtual environments that mimic real-world scenarios, allowing learners to practice and apply skills in a safe and controlled setting. Using game mechanics makes skill training interactive and enjoyable, leading to higher participant engagement and knowledge retention than traditional learning methods. Also, the rewards and recognition through points and badges can motivate learners to complete training tasks and strive for excellence. Gamified systems often provide instant feedback to help trainees understand their progress and areas for improvement. Features such as 'Leaderboards and challenges' can foster a sense of competition, thereby encouraging trainees to perform better. Clear goals and milestones in gamified learning help trainees stay focused.

Simulation-based learning provides hands-on experience in a controlled environment and allows trainees to experiment, make mistakes, and learn from them without bothering about real-world consequences. Simulations also help trainees understand complex systems and develop critical thinking, problem-solving, and practical skills. Also, the immersive nature of the simulations allows learners to retain the knowledge gained for longer. Singapore and Germany

have adopted gamified and simulation-based learning into their education, vocational, and skill training systems.

Adopting such a module in government skilling programmes can potentially improve the quality and outcome of workforce training. The module can be customised by identifying areas where skill sets are lacking. Trainees can be presented with challenges during training that will be adjusted based on their progress. The platform can feature training modules that simulate actual professional circumstances, enabling trainees to apply their knowledge practically. Simulations can assess the trainee's decision-making abilities and demonstrate the outcomes resulting from their decisions. At a decentralised level, the module can be extended to education institutes of higher learning by providing the students with a platform to work on real-world projects. Students can be given opportunities to intern on live projects and demonstrate their skills, and industry can use this talent pool while hiring.

The SWAYAM and Skill India Digital Hub (SIDH), the two online platforms for skill education and training initiated by the Indian government, can host the gamified and simulation training module. The SWAYAM platform hosts more than 4,000 courses. Since its inception, over 40 million participants have enrolled in the platform and a lion's share (93.45%) of successful course completions in the platform were under the engineering and physical sciences stream. As of June 2024, 7.63 lakh candidates were enrolled in SIDH's 752 online courses. The platform offers 7.37 lakh minutes of digital content, making it a potentially rich resource for learners. The response to SWAYAM and SIDH demonstrates the huge demand for technical education and training in India and further strengthens the idea of offering gamified and simulation-based skill training on such platforms.





Gamify India's Skilling Initiatives

भारत की कौशल योजनाओं को गेमिफाई करना

- The problem of **unemployment** has become a contentious issue in economic policy discussions in India in recent times.
बेरोजगारी भारत में हाल के समय में आर्थिक नीति चर्चाओं का एक विवादास्पद मुद्दा बन गया है।
- **Economic Survey 2023-24** estimated that India needs to create **78.5 lakh** new jobs in the **non-farm sector** annually until **2030** to meet the demands of the rising workforce.
आर्थिक सर्वेक्षण 2023-24 ने अनुमानित किया कि भारत को बढ़ती हुई कार्यबल की आवश्यकताओं को पूरा करने के लिए 2030 तक 78.5 लाख नए रोजगार गैर-कृषि क्षेत्र में प्रतिवर्ष बनाने होंगे।
- One of the policy prescriptions often suggested to overcome the **unemployment challenge** is to **close the growing gap between the skill sets of job seekers and the skill requirements of the industry**.
बेरोजगारी की चुनौती को दूर करने के लिए अक्सर सुझाई जाने वाली एक नीति यह है कि नौकरी ढूँढने वालों के कौशल सेट और उद्योग की कौशल आवश्यकताओं के बीच बढ़ती खाई को बंद किया जाए।

India's Skilling Challenge

भारत की कौशल चुनौती

- Over time, India has established a comprehensive **institutional and policy framework** for **training and skilling**. However, the success of this is somewhat limited.
समय के साथ, भारत ने प्रशिक्षण और कौशल विकास के लिए एक व्यापक संस्थागत और नीति ढांचा स्थापित किया है। हालांकि, इसका सफलता कुछ हद तक सीमित है।
- The **Periodic Labour Force Survey 2022-23** identified that only **21%** of the Indian youth aged **15-29 years** had received **vocational/technical training** through formal and informal sources.
पीरियाडिक लेबर फोर्स सर्वे 2022-23 ने यह पहचाना कि भारत के 15-29 वर्ष आयु वर्ग के केवल 21% युवाओं ने औपचारिक और अनौपचारिक स्रोतों से व्यावसायिक/तकनीकी प्रशिक्षण प्राप्त किया है।
- The **share of youth who had received formal vocational/technical training was 4.4% in 2022-23**.
जो युवा औपचारिक व्यावसायिक/तकनीकी प्रशिक्षण प्राप्त कर चुके थे, उनकी हिस्सेदारी 2022-23 में 4.4% थी।
- The **Chief Economic Advisor, V. Anantha Nageswaran**, recently stated that only **51%** of India's graduates are employable.
मुख्य आर्थिक सलाहकार, वी. आनंद नागेश्वरन, ने हाल ही में कहा कि भारत के केवल 51% स्नातक रोजगार योग्य हैं।





- These facts raise concerns regarding the **reach, quality, and industry relevance** of existing **skilling programmes**.

इन तथ्यों से मौजूदा कौशल कार्यक्रमों की पहुँच, गुणवत्ता, और उद्योग के लिए प्रासंगिकता को लेकर चिंता उत्पन्न होती है।

- One of the focus areas of the **Prime Minister's package for employment and skilling** announced in the **2024-25 Budget** was improving the **outcome and quality** of skilling and aligning the training content and design to the skill needs of the industry.

प्रधानमंत्री के पैकेज का एक प्रमुख क्षेत्र रोज़गार और कौशल के लिए **2024-25 के बजट** में यह था कि कौशल प्रशिक्षण के परिणाम और गुणवत्ता में सुधार किया जाए और प्रशिक्षण सामग्री और डिज़ाइन को उद्योग की कौशल आवश्यकताओं के अनुसार समन्वित किया जाए।

The Enormity of India's Skilling Challenge

भारत की कौशल चुनौती की विशालता

- The enormity of India's skilling challenge is further aggravated by the need to equip the workforce with skills and knowledge that meet the **requirements of industry 4.0 (I4.0)**, which entails integrating advanced technologies such as **artificial intelligence, robotics, the internet of things, and big data** to do smart manufacturing.

भारत की कौशल चुनौती की विशालता **उद्योग 4.0 (I4.0)** की आवश्यकताओं को पूरा करने के लिए कार्यबल को कौशल और ज्ञान से लैस करने की आवश्यकता से और बढ़ जाती है, जिसमें कृत्रिम बुद्धिमत्ता, रोबोटिक्स, इंटरनेट ऑफ थिंग्स, और बिग डेटा जैसी उन्नत प्रौद्योगिकियों को स्मार्ट निर्माण के लिए एकीकृत करना शामिल है।

- Over **two-thirds** of Indian manufacturers are expected to embrace **digital transformation** by **2025**.

2025 तक भारत के दो-तिहाई निर्माता **डिजिटल परिवर्तन** को अपनाने की उम्मीद है।

- Government policy support has been given to prepare the industry for **I4.0** through the **SAMARTH Udyog Bharat 4.0 initiative**.

सरकार की नीति सहायता **I4.0** के लिए उद्योग को तैयार करने के लिए **SAMARTH उद्योग भारत 4.0 पहल** के माध्यम से दी गई है।

- But according to estimates, **only 1.5%** of Indian engineers possess the skills for new-age jobs.

लेकिन अनुमानों के अनुसार, केवल **1.5%** भारतीय इंजीनियरों के पास **नई उम्र** के नौकरियों के लिए आवश्यक कौशल हैं।

- **Sixty percent** of the Indian **MSME workforce** lacks the new-age digital skills.

भारत के **MSME कार्यबल का 60%** नए जमाने के **डिजिटल कौशल** की कमी से जूझ रहा है।

- So, it becomes crucial to skill and **upskill** our workforce according to **I4.0 needs**.

इसलिए, यह अत्यंत महत्वपूर्ण हो जाता है कि हम अपने कार्यबल को **I4.0 की आवश्यकताओं** के अनुसार कौशल प्रदान करें और उन्नति करें।





A New Initiative

नई पहल

- India could consider incorporating **gamified and simulation-based learning and training modules**.
भारत को गेमिफाइड और सिमुलेशन-आधारित शिक्षा और प्रशिक्षण मॉड्यूल को शामिल करने पर विचार करना चाहिए।
- While **gamified learning** incorporates game elements into skill training, **simulation-based learning** uses virtual environments that mimic real-world scenarios, allowing learners to practice and apply skills in a safe and controlled setting.
जबकि गेमिफाइड शिक्षा कौशल प्रशिक्षण में खेल तत्वों को शामिल करती है, सिमुलेशन-आधारित शिक्षा वास्तविक दुनिया के परिदृश्यों की नकल करने वाले वर्चुअल वातावरण का उपयोग करती है, जिससे learners को सुरक्षित और नियंत्रित सेटिंग में कौशल का अभ्यास और आवेदन करने का अवसर मिलता है।
- Using **game mechanics** makes skill training **interactive and enjoyable**, leading to **higher participant engagement and knowledge retention** than traditional learning methods.
गेम मैकेनिक्स का उपयोग कौशल प्रशिक्षण को इंटरैक्टिव और आनंददायक बनाता है, जिससे पारंपरिक शिक्षा विधियों की तुलना में उच्च भागीदारी और ज्ञान की स्थायित्व प्राप्त होती है।
- Also, the **rewards and recognition through points and badges** can motivate learners to complete training tasks and strive for excellence.
इसके अलावा, अंक और बैज के माध्यम से पुरस्कार और मान्यता learners को प्रशिक्षण कार्यों को पूरा करने और उत्कृष्टता की ओर प्रेरित कर सकते हैं।
- **Gamified systems** often provide **instant feedback** to help trainees understand their progress and areas for improvement.
गेमिफाइड सिस्टम अक्सर तत्काल प्रतिक्रिया प्रदान करते हैं जिससे प्रशिक्षु अपनी प्रगति और सुधार के क्षेत्रों को समझ सकें।
- Features such as **'Leaderboards and challenges'** can foster **a sense of competition, thereby encouraging trainees to perform better**.
'लीडरबोर्ड और चुनौतियाँ' जैसी विशेषताएं प्रतिस्पर्धा की भावना को बढ़ावा दे सकती हैं, इस प्रकार प्रशिक्षुओं को बेहतर प्रदर्शन करने के लिए प्रेरित कर सकती हैं।
- Clear goals and milestones in gamified learning help trainees stay focused.
गेमिफाइड शिक्षा में स्पष्ट लक्ष्य और मील के पत्थर प्रशिक्षुओं को ध्यान केंद्रित रखने में मदद करते हैं।
- **Simulation-based learning provides hands-on experience in a controlled environment and allows trainees to experiment, make mistakes, and learn from them without bothering about real-world consequences**.
सिमुलेशन-आधारित शिक्षा एक नियंत्रित वातावरण में व्यावहारिक अनुभव प्रदान करती है और प्रशिक्षुओं को प्रयोग करने, गलतियाँ करने और उनसे सीखने की अनुमति देती है बिना वास्तविक दुनिया के परिणामों की चिंता किए।
- Simulations also **help trainees understand complex systems and develop critical thinking, problem-solving, and practical skills**.
सिमुलेशन प्रशिक्षुओं को जटिल प्रणालियों को समझने और आलोचनात्मक सोच, समस्या-समाधान, और व्यावहारिक कौशल विकसित करने में भी मदद करते हैं।





- Also, the **immersive nature of the simulations allows learners to retain the knowledge gained for longer.**
इसके अलावा, सिमुलेशन की **इमर्सिव प्रकृति** learners को अर्जित ज्ञान को लंबे समय तक बनाए रखने की अनुमति देती है।
- **Singapore and Germany** have adopted gamified and simulation-based learning into their education, vocational, and skill training systems.
सिंगापुर और जर्मनी ने अपनी शिक्षा, व्यावसायिक, और कौशल प्रशिक्षण प्रणालियों में गेमिफाइड और सिमुलेशन-आधारित शिक्षा को अपनाया है।
- Adopting such a module in government skilling programmes can potentially improve the quality and outcome of workforce training.
सरकारी कौशल कार्यक्रमों में ऐसे मॉड्यूल को अपनाने से श्रमिक प्रशिक्षण की गुणवत्ता और परिणामों में सुधार हो सकता है।
- The module can be customised by identifying areas where skill sets are lacking.
मॉड्यूल को उन क्षेत्रों की पहचान करके अनुकूलित किया जा सकता है जहां कौशल सेट की कमी है।
- Trainees can be presented with challenges during training that will be adjusted based on their progress.
प्रशिक्षुओं को प्रशिक्षण के दौरान ऐसे चुनौतियों का सामना कराया जा सकता है जो उनकी प्रगति के आधार पर समायोजित की जाएं।
- The platform can feature training modules that simulate actual professional circumstances, enabling trainees to apply their knowledge practically.
प्लेटफॉर्म में ऐसे प्रशिक्षण मॉड्यूल हो सकते हैं जो वास्तविक पेशेवर परिस्थितियों का **सिमुलेशन** करते हैं, जिससे प्रशिक्षु अपने ज्ञान का **व्यावहारिक रूप** से उपयोग कर सकें।
- **Simulations can assess the trainee's decision-making abilities and demonstrate the outcomes resulting from their decisions.**
सिमुलेशन प्रशिक्षु की **निर्णय लेने की क्षमताओं** का मूल्यांकन कर सकते हैं और उनके निर्णयों के परिणामों को प्रदर्शित कर सकते हैं।
- **At a decentralised level, the module can be extended to education institutes of higher learning by providing the students with a platform to work on real-world projects.**
एक **विकेंद्रीकृत स्तर** पर, मॉड्यूल को उच्च शिक्षा संस्थानों में विस्तारित किया जा सकता है जहां छात्रों को वास्तविक दुनिया के प्रोजेक्ट्स पर काम करने के लिए एक मंच प्रदान किया जाए।
- Students can be given **opportunities to intern on live projects and demonstrate their skills**, and industry can use this talent pool while hiring.
छात्रों को लाइव प्रोजेक्ट्स पर **इंटरनशिप** करने और अपनी **कौशल** को प्रदर्शित करने के अवसर दिए जा सकते हैं, और उद्योग इस **प्रतिभा पूल** का उपयोग करते हुए भर्ती कर सकता है।
- The **SWAYAM and Skill India Digital Hub (SIDH)**, the two online platforms for skill education and training initiated by the Indian government, can host the gamified and simulation training module.
SWAYAM और **Skill India Digital Hub (SIDH)**, ये दो ऑनलाइन प्लेटफॉर्म जो भारतीय सरकार द्वारा कौशल शिक्षा और प्रशिक्षण के लिए शुरू किए गए हैं, **गेमिफाइड और सिमुलेशन प्रशिक्षण मॉड्यूल** की मेज़बानी कर सकते हैं।
- The **SWAYAM platform hosts more than 4,000 courses.**
SWAYAM प्लेटफॉर्म 4,000 से अधिक **पाठ्यक्रमों** की मेज़बानी करता है।





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- Since its inception, over **40 million** participants have enrolled in the platform and a lion's share (**93.45%**) of successful course completions in the platform were under the engineering and physical sciences stream.
इसके प्रारंभ से, **40 मिलियन** से अधिक प्रतिभागियों ने प्लेटफॉर्म में नामांकन किया है और प्लेटफॉर्म में सफल पाठ्यक्रम पूर्ण करने का एक बड़ा हिस्सा (**93.45%**) इंजीनियरिंग और भौतिक विज्ञान धारा में था।
- As of **June 2024**, **7.63 lakh** candidates were enrolled in SIDH's **752 online courses**.
जून 2024 तक, **7.63 लाख** उम्मीदवार **SIDH** के **752 ऑनलाइन पाठ्यक्रमों** में नामांकित थे।
- The platform offers **7.37 lakh minutes** of digital content, making it a potentially rich resource for learners.
प्लेटफॉर्म **7.37 लाख मिनट** का **डिजिटल सामग्री** प्रदान करता है, जिससे यह learners के लिए एक संभावित समृद्ध संसाधन बन जाता है।
- The response to SWAYAM and SIDH demonstrates the huge demand for **technical education** and training in India and further strengthens the idea of offering gamified and simulation-based skill training on such platforms.
SWAYAM और **SIDH** की प्रतिक्रिया भारत में **तकनीकी शिक्षा** और प्रशिक्षण की भारी मांग को प्रदर्शित करती है और ऐसे प्लेटफॉर्मों पर **गेमिफाइड** और **सिमुलेशन-आधारित कौशल प्रशिक्षण** देने के विचार को और मजबूत करती है।

Website: patrioticias.in

Telegram Channel: <https://t.me/patrioticIAS>



चक्रवात फेंगल ने 70 वर्षों में सबसे अधिक वर्षा सथानूर बांध के तिरुवन्नामलई जिले, तमिलनाडु के उपरी क्षेत्रों में लाई।

- The dam was close to **full capacity** days before receiving water from the rainfall, leading to downstream flooding.

बांध पूर्ण क्षमता के करीब था, इससे पहले कि वर्षा से पानी आता, जिससे निचले क्षेत्रों में बाढ़ आई।

- AIADMK** general secretary **Edappadi K. Palaniswami** alleged that the **release of water without notice** caused the floods.

AIADMK के महासचिव **एदप्पादी के. पलानीस्वामी** ने आरोप लगाया कि बिना सूचना के पानी छोड़े जाने से बाढ़ आई।

- PMK** president **Anbumani Ramadoss** said if water had been released gradually, the catastrophe could have been avoided.
- PMK** के अध्यक्ष **अनबुमानी रामदोस** ने कहा कि अगर पानी को धीरे-धीरे छोड़ा जाता तो आपदा टल सकती थी।

- DMK government** denied these claims, stating that proper protocol was followed.

DMK सरकार ने इन आरोपों का खंडन करते हुए कहा कि उचित प्रोटोकॉल का पालन किया गया था।

- On **December 2, 2023**, **Harur** recorded **251mm** of rainfall, the highest in **70 years**.
- 2 दिसंबर 2023** को **हरूर** में **251 मिमी** वर्षा दर्ज की गई, जो **70 वर्षों** में सबसे अधिक थी।

- Uthangarai** recorded **185mm** of rainfall on the same day, the second highest in the period.

उथंगाराई में उसी दिन **185 मिमी** वर्षा दर्ज की गई, जो इस अवधि में दूसरी सबसे अधिक थी।

- Chengam** recorded **115mm** of rainfall, the seventh highest in the area.

चेंगम में **115 मिमी** वर्षा दर्ज की गई, जो उस क्षेत्र में सातवीं सबसे अधिक थी।

- Downstream areas such as **Thandampattu** and **Tiruvannamalai** recorded high rainfall, with **Sankarapuram** receiving **255mm** on **December 2**, the highest in **70 years**.
- निचले क्षेत्रों जैसे **थंदरामपट्टु** और **तिरुवन्नामलई** में भारी वर्षा हुई, **सांकरापुरम** में **2 दिसंबर** को **255 मिमी** वर्षा हुई, जो **70 वर्षों** में सबसे अधिक थी।

- The dam was **95% full** by **December 2023**, after heavy rainfall.
- दिसंबर 2023** तक बांध **95% भर चुका था**, भारी वर्षा के बाद।

- Between **December 2 and 5, 2023**, the dam recorded an inflow of **1.3 lakh cusecs** and a similar outflow.

2 से 5 दिसंबर 2023 के बीच, बांध में **1.3 लाख क्यूसेक** पानी की आवक और समान बहाव दर्ज किया गया।



- With the dam already filled to **95%**, storing and releasing water gradually was not possible.

चूंकि बांध पहले ही **95%** भर चुका था, पानी को स्टोर करने और धीरे-धीरे छोड़ने का विकल्प नहीं था।

- **Heavy rainfall downstream** worsened the situation, leading to severe flooding.

निचले क्षेत्रों में भारी वर्षा ने स्थिति को और बिगाड़ दिया, जिससे गंभीर बाढ़ आई।

The place of charity in an unequal society

Billionaire Warren Buffet has given away an amount of almost 52 billion dollars to various charities. While such a move is no doubt commendable, one must also question the processes generating the concentration of such wealth in the first place, regardless of whether it is to be used for philanthropy or not

GS Paper IV: Ethics

ECONOMIC NOTES

Rahul Menon

Billionaire Warren Buffet, with a net worth of almost \$121 billion by some estimates, has maintained his pledge of giving away his wealth. In a recent message to shareholders of Berkshire Hathaway, he has mentioned a transfer of his wealth to foundations overseen by his children, a total amount of around 870 million dollars. In all, it is estimated that he has given away an amount of \$52 billion.

Mr. Buffet's recent message has captured the attention of mainstream discourse as it has outlined his social philosophy with regard to wealth and its place in society. Mr. Buffet believes that wealth should be used to equalise opportunities, that the luck that favoured certain individuals and helped them get rich should be extended after one's death in order to help those less fortunate. While it is not wrong to amass and accumulate wealth during one's lifetime, allowing it to build across generations is a problem for society. While it is no doubt commendable that Mr. Buffet wishes to give away his fortune, one must also question the processes generating the concentration of such wealth in the first place, regardless of whether it is to be used for philanthropy or not. Inequality is not a question of luck, but of specific policy institutions determined by society. In a world of spiralling inequality, both private philanthropy and the problems it tries to solve are two sides of the same coin, emerging from the very same set of social processes.

On luck and equal opportunity

Mr. Buffet's ideas with regard to wealth and welfare can be seen in the context of a philosophical idea called "luck egalitarianism", which states that no-one should have to suffer the consequences of inequality owing to bad luck or adverse situations. As Mr. Buffet repeatedly



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stresses in his letter, he credits much of his personal fortune to fortuitous circumstances, such as being born as a white male in the U.S. Opportunities were open to him that would not be open to women or African-Americans, and the growth of the U.S. over the years caused his wealth to grow significantly through the power of compound interest.

Some might accuse Mr. Buffet of false modesty, claiming that his fortune has been generated through his own diligent efforts and his understanding of markets. But there is truth in what he says. As Branko Milanovic has shown, a significant factor driving global inequality is the differences in income between countries. Where one is born determines how wealthy one might be relative to the global population. In that regard, Mr. Buffet does display a strong egalitarian zeal. If fortune played a huge role in the differences between Mr. Buffet and

others, there is no moral justification for him to pass on his wealth to his descendants. The only moral response is to ensure his wealth can be used to boost the opportunities of those less fortunate. What matters is the equalising of opportunities, and allowing individuals a level playing field in the beginning, rather than trying to equalise final outcomes.

What about charity?

However, there are some important questions that need to be addressed. The distribution of private wealth through charity may help to equalise well-being between individuals, but the process by which this wealth was generated and concentrated has led to the differences in opportunities in the first place. In the developed world, wealth distribution was largely equal during the post World War II period. Widespread deregulation and a turn towards neo-liberal economics saw

an explosion of wealth inequality from the 1980s onwards, with the 'trickle-down' economics of Ronald Reagan and Margaret Thatcher leading to the concentration of gains for a tiny sliver of individuals and stagnant wages for the majority. In India as well, the liberalisation of the economy may have led to faster growth, but has dramatically increased inequality and skewed the distribution of opportunities.

Differences in opportunities are not merely a question of luck, but of specific policy choices and interventions. Bill Gates' and Jeff Bezos' wealth came from the monopolies they enjoyed in the marketplace; this is less luck than the failure of policy to ensure competitive market practices. Mckenzie Bezos might be doing important work in giving away much of her wealth, but one must ask how it was that Amazon generated so much money for its owners while its workers suffered through stagnant wages and harmful working conditions. Mr. Buffet earned much of his wealth through the compounding of his initial equity holdings, but the widespread financialisation of the U.S. economy – concomitant with the reduction in the power of unions and stagnant wage growth – greatly aided this process.

In the face of rising inequality, societies face a choice: to either do nothing and hope that private charity increases, or devise policy to counter the negative effects of rising wealth concentration. Thomas Piketty advocates for a system of taxation and redistribution backed by the State to ensure equalisation of opportunities, rather than relying on private philanthropy. Interventionist thinkers and those on the left advocate for higher minimum wages and constraints on billionaire compensation. The use of state policy ensures that one does not have to rely on billionaire conscience to ameliorate the very processes that gave rise to their wealth in the first place.

Rahul Menon is Associate Professor in the Jindal School of Government and Public Policy at O.P. Jindal Global University.

THE GIST

▼ Mr. Buffet believes that wealth should be used to equalise opportunities, that the luck that favoured certain individuals and helped them get rich should be extended after one's death in order to help those less fortunate.

▼ Mr. Buffet's ideas with regard to wealth and welfare can be seen in the context of a philosophical idea called "luck egalitarianism", which states that no-one should have to suffer the consequences of inequality owing to bad luck or adverse situations.

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The place of charity in an unequal society

असमान समाज में चैरिटी का स्थान

Billionaire Warren Buffett has given away an amount of **almost \$52 billion** to various charities.

Website: patrioticias.in

Telegram Channel: <https://t.me/patrioticIAS>





billionaire Warren Buffett ने विभिन्न चैरिटी को लगभग \$52 बिलियन दान किए हैं।

- He has pledged to **give away his wealth, with a recent transfer of \$870 million to foundations overseen by his children.**
उन्होंने अपनी संपत्ति दान करने की शपथ ली है, जिसमें हाल ही में **\$870 मिलियन** का हस्तांतरण उनके बच्चों द्वारा देखे जाने वाले फाउंडेशनों को किया गया है।
- Mr. Buffett's recent message captured mainstream attention, outlining his **social philosophy** regarding wealth.
Mr. Buffett का हालिया संदेश मुख्यधारा का ध्यान आकर्षित किया, जिसमें उन्होंने संपत्ति के संदर्भ में अपनी **सामाजिक दर्शन** को रेखांकित किया।
- He believes that wealth should be used to **equalize opportunities** and that luck helped him get rich.
उनका मानना है कि संपत्ति का उपयोग **अवसरों को समान बनाने** के लिए होना चाहिए और यह कि भाग्य ने उन्हें अमीर बनने में मदद की।
- The **concentration of wealth across generations is problematic for society, even if it's used for philanthropy.**
संपत्ति का पीढ़ी दर पीढ़ी संकेंद्रण समाज के लिए समस्याजनक है, चाहे वह धर्मार्थ कार्य के लिए ही क्यों न इस्तेमाल हो।
- Inequality is not a matter of luck, but of **specific policy institutions determined by society.**
असमानता किस्मत का मामला नहीं है, बल्कि यह **विशिष्ट नीति संस्थाओं** का परिणाम है, जो समाज द्वारा निर्धारित की जाती हैं।
- Private philanthropy and the problems it addresses are two sides of the same coin, arising from the same set of **social processes.**
निजी धर्मार्थ कार्य और जो समस्याएं वह हल करता है, वह एक ही सिक्के के दो पहलू हैं, जो एक ही **सामाजिक प्रक्रियाओं** से उत्पन्न होते हैं।

On luck and equal opportunity

भाग्य और समान अवसर पर

- **Luck egalitarianism** is a philosophical idea stating that no one should suffer from inequality due to **bad luck.**
भाग्य समानतावाद एक दार्शनिक विचार है जो कहता है कि कोई भी व्यक्ति **खराब किस्मत** के कारण असमानता का शिकार नहीं होना चाहिए।
- Mr. Buffett credits much of his fortune to **fortuitous circumstances**, such as being born as a **white male** in the U.S.
Mr. Buffett अपनी अधिकांश संपत्ति को **भाग्यशाली परिस्थितियों** का श्रेय देते हैं, जैसे कि **यू.एस.** में एक **श्वेत पुरुष** के रूप में जन्म लेना।





- Opportunities were open to him that wouldn't be available to **women** or **African-Americans**.
उन्हें वे अवसर मिले जो **महिलाओं** या **अफ्रीकी-अमेरिकियों** को नहीं मिलते।
- **Growth of the U.S. over the years helped his wealth grow significantly through the power of compound interest.**
यू.एस. का वर्षों में विकास उनकी संपत्ति को **संयुग्म ब्याज की शक्ति** के माध्यम से महत्वपूर्ण रूप से बढ़ने में मदद करता है।
- Mr. Buffett's statement about his wealth can be viewed as aligning with **Branko Milanovic's findings that differences in income between countries are a major factor driving global inequality.**
Mr. Buffett का अपनी संपत्ति के बारे में बयान **ब्रान्को मिलानोविक के निष्कर्षों** के साथ मेल खाता है कि **देशों के बीच आय में अंतर वैश्विक असमानता को बढ़ाने वाला एक प्रमुख कारक है।**
- The country of birth plays a significant role in determining how wealthy a person can be globally.
जन्म का देश यह निर्धारित करने में महत्वपूर्ण भूमिका निभाता है कि कोई व्यक्ति वैश्विक स्तर पर कितना संपन्न हो सकता है।
- If fortune played a huge role in his wealth, there is no moral justification for passing it down to **descendants**.
यदि भाग्य ने उनकी संपत्ति में बड़ी भूमिका निभाई, तो इसे **वंशजों** को पारित करने के लिए कोई नैतिक औचित्य नहीं है।
- The moral response is to ensure wealth boosts the opportunities of those **less fortunate**.
नैतिक प्रतिक्रिया यह है कि संपत्ति उन लोगों के अवसरों को बढ़ाने के लिए सुनिश्चित की जाए जो **कम भाग्यशाली** हैं।
- The goal is to **equalize opportunities rather than final outcomes**.
लक्ष्य **अवसरों को समान बनाना** है, न कि **अंतिम परिणामों** को।

What about charity?

चैरिटी के बारे में क्या?

- The distribution of **private wealth** through charity may help equalise well-being between individuals, but the process by which this wealth was generated and concentrated has led to the differences in opportunities in the first place.
निजी संपत्ति के वितरण के माध्यम से चैरिटी व्यक्तिगतों के बीच भलाई को समान बना सकता है, लेकिन यह संपत्ति किस प्रक्रिया द्वारा उत्पन्न और संकेंद्रित हुई, उसने पहले स्थान पर अवसरों में अंतर पैदा किया है।
- In the **developed world**, wealth distribution was largely equal during the **post-World War II period**. Widespread **deregulation** and a turn towards **neo-liberal economics** saw an explosion of wealth inequality from the **1980s onwards**, with the **'trickle-down'** economics of **Ronald Reagan** and **Margaret Thatcher** leading to the concentration of gains for a tiny sliver of individuals and stagnant wages for the majority.
विकसित दुनिया में, **द्वितीय विश्व युद्ध** के बाद संपत्ति वितरण काफी हद तक समान था।





व्यापक निरसंगठन और नियो-लिबरल अर्थशास्त्र की ओर रुख करने के बाद, 1980 के दशक से संपत्ति असमानता में विस्फोट हुआ, जिसमें 'ट्रिकल-डाउन' अर्थशास्त्र ने रोनाल्ड रीगन और मार्गरेट थैचर के तहत कुछ व्यक्तियों के लिए लाभों के संकेंद्रण और अधिकांश के लिए वेतन स्थिर किया।

- **In India, the liberalisation of the economy** may have led to faster growth, but has dramatically increased inequality and skewed the distribution of opportunities.
भारत में, आर्थिक उदारीकरण शायद तेज़ विकास का कारण बना हो, लेकिन इसने असमानता को नाटकीय रूप से बढ़ा दिया और अवसरों के वितरण को विकृत कर दिया।
- **Differences in opportunities** are not merely a question of **luck**, but of **specific policy choices and interventions**.
अवसरों में भिन्नताएँ केवल किस्मत का सवाल नहीं हैं, बल्कि विशेष नीति विकल्पों और हस्तक्षेपों का मामला हैं।
- **Bill Gates' and Jeff Bezos'** wealth came from the **monopolies they enjoyed in the marketplace**; this is **less luck than the failure of policy to ensure competitive market practices**.
बिल गेट्स और जेफ बेजोस की संपत्ति उस बाज़ार में उनके द्वारा अनुभव किए गए एकाधिकार से आई; यह किस्मत कम है और नीति की विफलता है जो प्रतिस्पर्धी बाज़ार प्रथाओं को सुनिश्चित नहीं कर पाई।
- **McKenzie Bezos** might be doing important work in giving away much of her wealth, but one must ask **how it was that Amazon generated so much money for its owners while its workers suffered through stagnant wages and harmful working conditions**.
मैकेन्जी बेजोस अपनी संपत्ति का एक बड़ा हिस्सा दान में दे रही हों, लेकिन एक सवाल उठता है कि अमेज़न ने अपने मालिकों के लिए इतना पैसा कैसे उत्पन्न किया जबकि इसके श्रमिक स्थिर वेतन और हानिकारक कार्य स्थितियों में पीड़ित हो रहे थे।
- **Mr. Buffett** earned much of his wealth through the compounding of his initial equity holdings, but the widespread **financialisation of the U.S. economy** — concomitant with the **reduction in the power of unions and stagnant wage growth** — greatly aided this process.
श्री बफे ने अपनी संपत्ति का अधिकांश भाग अपनी प्रारंभिक शेयरधारिता के संचयीकरण के माध्यम से अर्जित किया, लेकिन यू.एस. अर्थव्यवस्था के व्यापक वित्तीयकरण ने — यूनियनों की शक्ति में कमी और वेतन वृद्धि के स्थिर होने के साथ — इस प्रक्रिया में बहुत मदद की।
- In the face of rising inequality, societies face a choice: to either do nothing and hope that private charity increases, or devise policy to counter the negative effects of rising wealth concentration.
बढ़ती असमानता के बीच, समाजों के पास एक विकल्प होता है: या तो कुछ न करें और उम्मीद करें कि निजी चैरिटी बढ़ेगी, या बढ़ती संपत्ति संकेंद्रण के नकारात्मक प्रभावों का मुकाबला करने के लिए नीति तैयार करें।
- **Thomas Piketty** advocates for a system of **taxation and redistribution backed by the State to ensure equalisation of opportunities**, rather than relying on private philanthropy.
थॉमस पिकेटी अवसरों के समानकरण को सुनिश्चित करने के लिए राज्य द्वारा समर्थित कराधान और पुनर्वितरण प्रणाली का समर्थन करते हैं, न कि निजी चैरिटी पर निर्भर रहने के बजाय।





- **Interventionist thinkers** and those on the left advocate for higher **minimum wages** and constraints on **billionaire compensation**.

हस्तक्षेपकारी विचारक और वामपंथी लोग उच्च न्यूनतम वेतन और अरबपतियों के मुआवजे पर प्रतिबंध लगाने का समर्थन करते हैं।

- The use of state policy ensures that one does not have to rely on **billionaire conscience** to ameliorate the very processes that gave rise to their wealth in the first place.

राज्य नीति का उपयोग यह सुनिश्चित करता है कि किसी को भी अरबपतियों की भावना पर निर्भर नहीं रहना पड़े, ताकि वे प्रक्रियाओं को सुधार सकें जिन्होंने उनकी संपत्ति को पहली जगह उत्पन्न किया।

What is the delay in forming a government in Austria?

Why are Austria's mainstream parties refusing to enter into a coalition with the far-right Freedom Party? Why did the Austrian President refuse to invite the FPO to lead the country?

GS Paper II: IR

Garimella Subramaniam

The story so far:

The Austrian chancellor Karl Nehammer's ruling People's Party (ÖVP) has inched closer to heading Vienna's next coalition government. The party was the runner-up in the September 29 elections and its vote slump, compared with the 2019 polls, was the biggest loss any ruling party has sustained. The ÖVP's prospective coalition partner, the Social Democrats (SPÖ) put up their worst ever electoral showing since World War II. Conversely, the far-right, xenophobic, Eurosceptic, anti-Muslim and pro-Russian Freedom Party (FPÖ), emerged the largest entity, albeit without a majority.

Why is the FPÖ being shunned?

All of Austria's mainstream parties have refused to form a government with the

FPÖ. The only ground the ultra-right party has gained since the polls is the election of one of its members as the parliament's speaker. Among the reasons for parties' antipathy towards the FPÖ are the latter's backing for Russia in its full-scale aggression against Ukraine. The FPÖ has veered further to the extreme right under its current leader Herbert Kickl, who styles himself as the 'people's chancellor,' in a not so oblique reference to Adolf Hitler, and regards Hungary's autocratic President Viktor Orban as his role model. As interior minister in the short-lived 2017-2019 ÖVP-FPÖ coalition government, Mr. Kickl shut down mosques in a crackdown against the "Islamisation" of Austria. His infamous raids on the nation's intelligence services severely compromised collaboration with international agencies. He continues to advocate for the re-migration of citizens of foreign origin as part of the mission to

create a homogenous Austrian society.

Why is FPÖ not forming the gov't?

Departing from convention, the Austrian President Alexander Van der Bellen opted not to invite the FPÖ to form a government, even though it had emerged the largest party in the parliament's lower house. President Van der Bellen has previously stressed that the practice hitherto followed by the head of the state was a tradition, not a requirement under the Austrian constitution. As such, on October 9, he gathered the three largest parties in the new legislature in an effort to facilitate consultations on the prospects for a new government. With no signs of a resolution, he tasked chancellor Nehammer with the responsibility.

The President has indicated definite red lines that ought not to be crossed under his watch by any government. Most notable of these is Vienna's European

Union (EU) membership, which the FPÖ has steadfastly opposed.

What explains the FPÖ's appeal?

The FPÖ has participated in three federal governments since the 1980s. There was a minor ripple across Europe at the turn of the century, when the FPÖ's Jorg Haider joined a ruling alliance with the ÖVP, as EU capitals threatened bilateral boycotts on the country. However, in a measure of the far-right's greater acceptability in Austria and across the EU, the reaction to the party's cohabitation in a coalition with the ÖVP between 2017-2019 was markedly muted. The FPÖ's growing appeal has much to do with popular disenchantment with decades of centrist coalitions, a Europe-wide phenomenon, which in the aftermath of the Holocaust, was seen as a bulwark against political extremism. In reality however, the ÖVP and SPÖ coalitions have over the years been tainted with divvying up key positions in government and business between themselves.

The prospective coalition among the ÖVP, SPÖ and the liberal NEOS will undoubtedly have its share of ideological differences to contend with. The longer they take to strike a deal, the greater the potential within the FPÖ to pressure its leader Mr. Kickl to step aside to allow the party to join a coalition with the ÖVP.

The writer is Director, Strategic Initiatives, AgnoShin Technologies.

THE GIST

Among the reasons for parties' antipathy towards the FPÖ are the latter's backing for Russia in its full-scale aggression against Ukraine. The FPÖ has veered further to the extreme right under its current leader Herbert Kickl.

Departing from convention, the Austrian President Alexander Van der Bellen opted not to invite the FPÖ to form a government, even though it had emerged the largest party in the parliament's lower house.

The prospective coalition among the ÖVP, SPÖ and the liberal NEOS will undoubtedly have its share of ideological differences to contend with.

Delay in Forming a Government in Austria

ऑस्ट्रिया में सरकार गठन में देरी

The Austrian chancellor Karl Nehammer's ruling People's Party (ÖVP) is nearing forming Vienna's next coalition government despite being the runner-up in the September 29 elections.

ऑस्ट्रिया के चांसलर कार्ल नेहमर की पीपुल्स पार्टी (ÖVP) 29 सितंबर के चुनावों में दूसरे स्थान पर रहने के बावजूद वियना की अगली गठबंधन सरकार बनाने के करीब है।





- The ÖVP experienced its biggest vote loss compared to the **2019 polls**, while its coalition partner, the **Social Democrats (SPO)**, faced their worst electoral performance since **World War II**.
ÖVP को 2019 के चुनावों की तुलना में सबसे बड़ा वोट नुकसान हुआ, जबकि इसके गठबंधन सहयोगी सोशल डेमोक्रेट्स (SPO) ने द्वितीय विश्व युद्ध के बाद से सबसे खराब चुनावी प्रदर्शन किया।
- The **far-right Freedom Party (FPO)** emerged as the largest party but failed to secure a majority.
दक्षिणपंथी फ्रीडम पार्टी (FPO) सबसे बड़ी पार्टी के रूप में उभरी, लेकिन बहुमत हासिल करने में विफल रही।

Why is the FPO Being Shunned?

FPO को क्यों दरकिनार किया जा रहा है?

- **Mainstream parties refused to form a government with the FPO due to its pro-Russian stance and extreme-right ideologies under leader Herbert Kickl.**
मुख्यधारा की पार्टियों ने FPO के साथ सरकार बनाने से इनकार कर दिया क्योंकि इसका झुकाव रूस समर्थक और चरम दक्षिणपंथी विचारधाराओं की ओर है, जो इसके नेता हर्बर्ट किकल के नेतृत्व में है।
- **Kickl regards Hungary's President Viktor Orbán as his role model and has been criticized for shutting down mosques and advocating "re-migration" to create a homogenous Austrian society.**
किकल ने हंगरी के राष्ट्रपति विक्टर ऑरबान को अपना आदर्श माना और मस्जिदों को बंद करने और "पुनः प्रवासन" का समर्थन करने के लिए आलोचना का सामना किया।
- The FPO's policies under the 2017–2019 ÖVP-FPO coalition, such as raids on intelligence agencies, compromised international collaborations.
2017-2019 ÖVP-FPO गठबंधन के तहत FPO की नीतियों, जैसे खुफिया एजेंसियों पर छापेमारी, ने अंतरराष्ट्रीय सहयोग को प्रभावित किया।

Why is FPO Not Forming the Government?

FPO सरकार क्यों नहीं बना रही है?

- Austrian President **Alexander Van der Bellen** did not invite the FPO to form the government despite it being the largest party, citing it as a tradition, not a constitutional requirement.
ऑस्ट्रिया के राष्ट्रपति अलेक्जेंडर वान डेर बेलन ने FPO को सरकार बनाने का न्योता नहीं दिया, यह बताते हुए कि यह परंपरा है, संवैधानिक आवश्यकता नहीं।
- On **October 9**, the President facilitated consultations with the three largest parties but later tasked Chancellor **Nehammer** with forming a government.
9 अक्टूबर को राष्ट्रपति ने तीन सबसे बड़ी पार्टियों से परामर्श किया, लेकिन बाद में चांसलर नेहमर को सरकार बनाने का काम सौंपा।





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- The President emphasized red lines like **EU membership**, which the FPO opposes.
राष्ट्रपति ने ईयू सदस्यता जैसे मुद्दों को रेखांकित किया, जिसका FPO विरोध करता है।

What Explains the FPO's Appeal?

FPO की लोकप्रियता का कारण क्या है?

- The FPO has been part of three federal governments since the **1980s**, including a coalition with the ÖVP between **2017–2019**.
FPO ने 1980 के दशक से तीन संघीय सरकारों में हिस्सा लिया है, जिसमें 2017-2019 के बीच ÖVP के साथ गठबंधन शामिल है।
- Rising disenchantment with centrist coalitions tainted by corruption and inefficiency has contributed to the FPO's growing appeal.
भ्रष्टाचार और अक्षमता से प्रभावित मध्यमार्गी गठबंधनों से बढ़ती नाराजगी ने FPO की लोकप्रियता में वृद्धि की है।
- The longer the ÖVP-SPO-NEOS coalition negotiations take, the more the FPO could leverage this delay to pressure its leader to compromise.
जितनी देर ÖVP-SPO-NEOS गठबंधन की बातचीत में होगी, उतना ही FPO इस देरी का लाभ उठाकर अपने नेता पर समझौता करने का दबाव डाल सकता है।



Should AI be blamed for sporadic layoffs in Big tech?

Thomas Monteiro, lead analyst at Investing.com, says, 'AI hasn't yet grown good enough to replace the bulk of human workers end-product-wise. However, what it did do is change companies' priorities'

SS Paper III: S&T

Poulomi Chatterjee

During Alphabet Inc.'s September-ending earnings call on October 29, CFO Anat Ashkenazi told investors that the company wants to tamp down costs, noting it would mostly be on how it operates and runs its business. The following day, worried Googlers sought more details at a company's all-hands meeting. CEO Sundar Pichai stuck to a similar refrain, without giving a direct yes or no to questions around layoffs. Mr. Pichai said efficiencies in headcount could also mean reallocation of human resource to streamline teams.

"When you're doing something new and it's going to take 10 people, if you are able to do it with eight people by making smart trade-offs somewhere, that's a good example," he noted. While Ms. Ashkenazi reassured that people are "one of the most important" assets to the company, Mr. Pichai did not wave off the possibility of layoffs. "If we are making company-wide decisions, we'll definitely let you know," he said. Google's head of recruiting, Brian Ong, added that it was a reality that the search giant was tightening hiring, and that workers would find fewer open positions.

Like other tech companies, Alphabet is overhauling its business processes with AI while fending off pressure from investors. Bank of America analysts had warned in June, post Ms. Ashkenazi's appointment as the new CFO, that there was "potential for the company to 'surprise' with further self-help cost cutting actions after limited layoffs in 2024."

Google is a microcosm of the transformation happening in many other tech firms. Employees at Big Tech companies have seen a steady stream of layoffs. Last year alone, based on various reports, nearly a lakh tech workers lost their jobs in just U.S.-based tech companies.

This year, Google laid off more than 200 employees from its core engineering teams in May. During a previous internal meeting, Mr. Pichai said the constant layoffs were necessary to "improve velocity" of the company. The Silicon Valley giant slashed hundreds of staff from their cloud unit, sales and engineering teams again in June. In October, Meta started making similar small cuts across various segments including WhatsApp, Instagram and their Reality Labs division. This followed layoffs in done earlier in June.

Meanwhile, in Amazon, CEO Andy Jassy said in September that he would restructure the e-commerce giant in a way that the ratio of individual contributors to managers increased by 15% by March 2025. A Morgan Stanley report estimated that this could mean eliminating around 13,834 managerial positions resulting in cost savings of between \$2.1 billion to \$3.6 billion. The company also announced a strict five days a week return-to-work policy starting from 2025. Disgruntled employees were convinced that this was a backdoor layoff tactic. Although Mr. Jassy denied this later, at an all-hands meeting days later, Matt Garman, CEO of Amazon Web Services said that displeased employees who were averse to the policy were free to



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seek employment elsewhere. Amazon also keeps closing down units in smatterings. In late October, it shut down its speedy brick-and-mortar delivery service called Amazon Today. A couple of weeks ago, it phased out its free-to-watch streaming service, Freevee.

Microsoft laid off around 2,000 employees in its gaming unit, months after acquiring Activision Blizzard. Two other rounds of cuts were done consecutively in June and July in Azure's

product and programme management segments. LinkedIn, owned by Microsoft laid off 200 employees unceremoniously just last week.

Is AI just a ruse?

How much of the blame can truthfully be placed on AI deployment? "This is a correction for a decade-long trend of over hiring in the sector. As easy capital went to the side-lines in 2022, it has become more difficult to start new tech

companies and that takes away tech jobs," explained Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University.

"This is not really about AI, though you may be tempted to make it so. Most of the tech layoffs are happening at places that hired well before AI was even a glimmer in the market's mind. This is a story of accountability eventually catching up at young tech companies that sold themselves on potential but have never been able to monetise it," he noted.

But even if it is a natural comedown, investors are now forced to reckon with the sky-high AI expenditures coupled with a long road before seeing any profitable returns.

Big Tech's large capex

According to *Visible Alpha*, Microsoft will spend over \$80 billion in the current fiscal year, which is a jump of more than \$30 billion from the previous year. The Redmond, Washington-headquartered company also predicted slower growth for its cloud segment in the quarter. Mr. Zuckerberg also pegged "significant acceleration" in costs to the pace with which Meta was building data centres and AI infrastructure. The company raised the low end of its capital expenditures guidance for 2024 to \$38 billion from \$37 billion after its earnings report, with the higher limit still at \$40 billion. Alphabet reported \$13 billion in capital expenditures in the third quarter, and CFO Ashkenazi is intent on keeping it the same in the fourth quarter.

Meanwhile, Andy Jassy said he plans to spend \$75 billion on capex in 2024 and expects an even bigger number in 2025. Mr. Jassy told investors that GenAI "a really unusually large, maybe once-in-a-lifetime type of opportunity," reassuring shareholders they would feel good "in the long term."

During the early days of AI, many thought that their jobs will be replaced.

Thomas Monteiro, lead analyst at Investing.com, points out that, "Saving a few specific sectors, AI hasn't yet grown good enough to replace the bulk of human workers end-product-wise. However, what it did do is change companies' priorities, meaning that these are rethinking how they allocate their resources, more than often taking the risk of replacing several otherwise essential workers for a highly disputed, expensive AI specialist."

Labour force inflation and lack of clarity on how to monetise AI is also "forcing companies to figure out ways to become more efficient. But if they can't cut from the expenses side because the competition will run them over once they figure out the AI game, what's left? Well, only further reductions," he added.

The market has been ruthless to companies that ignored the clarion call of AI at the opportune moment. Intel, a Silicon Valley icon, announced it would be laying off 15,000 employees earlier in August to accommodate a \$10 billion savings plan after it became obvious that the company had gotten left behind in AI. To add insult to injury, the company was replaced on the Dow Jones Industrial Average index in November by Nvidia, a company that Intel tried to buy two decades ago.

Although the rate of tech layoffs have somewhat slowed, they haven't fully stopped as tech companies are shedding employees wherever they see fit. "In a sense, layoffs are unavoidable," Mr. Monteiro said. "Companies will always have a choice, and historically, we've seen companies challenging the status quo to reach good results by thinking outside the box. However, we currently live in a world where shareholder value is just as important as consumer value, and no one is willing to take the risk."





Should AI be blamed for sporadic layoffs in Big Tech? क्या sporadic layoffs के लिए AI को दोष देना चाहिए?

Thomas Monteiro, lead analyst at Investing.com, states that AI hasn't yet grown good enough to replace the bulk of human workers end-product-wise but has changed companies' priorities.

थॉमस मोंटेरो, जो इन्वेस्टिंग.कॉम के प्रमुख विश्लेषक हैं, कहते हैं कि AI अभी तक बड़े पैमाने पर मानव श्रमिकों को अंतिम उत्पाद के दृष्टिकोण से प्रतिस्थापित करने में सक्षम नहीं है, लेकिन इसने कंपनियों की प्राथमिकताओं को बदल दिया है।

- During Alphabet Inc.'s earnings call on October 29, CFO Anat Ashkenazi emphasized cost control by optimizing operations and business processes.
29 अक्टूबर को अल्फाबेट इंक की कमाई कॉल के दौरान, CFO अनात अश्केनाज़ी ने संचालन और व्यावसायिक प्रक्रियाओं को अनुकूलित करके लागत नियंत्रण पर जोर दिया।
- On the following day, at a company's all-hands meeting, CEO Sundar Pichai discussed the possibility of reallocating human resources to streamline teams but avoided directly addressing layoffs.
अगले दिन, कंपनी की ऑल-हैंड्स मीटिंग में, सीईओ सुंदर पिचाई ने टीमों को सुव्यवस्थित करने के लिए मानव संसाधनों को पुनः आवंटित करने की संभावना पर चर्चा की, लेकिन छंटनी पर सीधे बात करने से बचा।
- Pichai explained that efficiencies in headcount might involve doing the same tasks with fewer people by making smart trade-offs.
पिचाई ने समझाया कि हेडकाउंट में दक्षता का मतलब कम लोगों के साथ वही काम करना हो सकता है, अगर समझदारी से विकल्प चुने जाएं।
- Google's Head of Recruiting, Brian Ong, mentioned tightened hiring, resulting in fewer open positions for workers.
गूगल के हेड ऑफ रिक्रूटिंग, ब्रायन ऑंग, ने सख्त भर्ती नीतियों का उल्लेख किया, जिससे श्रमिकों के लिए कम खुली भूमिकाएं उपलब्ध होंगी।

Impact of AI on Layoffs and Transformation in Big Tech

Big Tech में AI का छंटनी और परिवर्तन पर प्रभाव

- Alphabet is revamping business processes with AI while handling pressure from investors to reduce costs.
अल्फाबेट AI के साथ व्यावसायिक प्रक्रियाओं में सुधार कर रहा है और लागत कम करने के लिए निवेशकों के दबाव का सामना कर रहा है।
- In May 2024, Google laid off more than 200 employees from its core engineering teams to improve company "velocity."





मई 2024 में, गूगल ने अपनी कोर इंजीनियरिंग टीम से 200 से अधिक कर्मचारियों को "गति" में सुधार के लिए निकाल दिया।

- **Meta** also started implementing cuts across **WhatsApp, Instagram, and Reality Labs** divisions, following earlier layoffs in June 2024.

मेटा ने व्हाट्सएप, इंस्टाग्राम, और रियलिटी लैब्स डिवीजनों में कटौती शुरू की, जो जून 2024 में की गई छंटनी के बाद हुई।

- **Amazon** aims to increase the ratio of individual contributors to managers by 15% by **March 2025**, which could result in eliminating **13,834 managerial positions** and save \$2.1 billion to \$3.6 billion.

अमेज़न का लक्ष्य मार्च 2025 तक व्यक्तिगत योगदानकर्ताओं और प्रबंधकों के अनुपात को 15% तक बढ़ाना है, जिससे 13,834 प्रबंधकीय पद समाप्त हो सकते हैं और \$2.1 बिलियन से \$3.6 बिलियन की बचत हो सकती है।

- Amazon also **closed down Amazon Today** and **phased out Freevee** to cut costs. अमेज़न ने लागत कम करने के लिए अमेज़न टुडे को बंद किया और फ्रीवी को चरणबद्ध तरीके से समाप्त किया।

- In **October 2024**, Microsoft cut **2,000 employees** in its gaming unit and announced additional layoffs in its Azure segment.

**अक्टूबर 2024 में, माइक्रोसॉफ्ट ने अपनी गेमिंग यूनिट में 2,000 कर्मचारियों की छंटनी की और Azure सेगमेंट में अतिरिक्त छंटनी की घोषणा की।

- LinkedIn, owned by Microsoft, **laid off 200 employees unceremoniously** in November 2024.

माइक्रोसॉफ्ट के स्वामित्व वाले लिंकडइन ने नवंबर 2024 में 200 कर्मचारियों को बिना किसी औपचारिकता के हटा दिया।

Is AI Just a Ruse?

क्या AI सिर्फ एक दिखावा है?

- **How much blame can truthfully be placed on AI deployment?**

"This is a correction for a decade-long trend of over-hiring in the sector," said Aswath Damodaran, Professor of Finance at the Stern School of Business, NYU.

AI को लेकर कितनी सच्ची जिम्मेदारी डाली जा सकती है?

"यह एक दशक लंबे अधिक भर्ती के चलन का सुधार है," न्यूयॉर्क यूनिवर्सिटी के स्टर्न स्कूल ऑफ बिज़नेस के वित्त प्रोफेसर अस्वथ दामोदरन ने कहा।

- **Aswath Damodaran** further explained that **easy capital** moving to the sidelines in **2022** made it harder to start new tech companies, reducing tech jobs.

अस्वथ दामोदरन ने आगे समझाया कि 2022 में आसान पूंजी के किनारे चले जाने से नई तकनीकी कंपनियों की शुरुआत मुश्किल हो गई, जिससे तकनीकी नौकरियां कम हो गईं।

- "This is not really about AI," he noted, as most layoffs occurred in companies that hired before AI became prominent.





उन्होंने कहा, "यह वास्तव में AI के बारे में नहीं है," क्योंकि अधिकांश छंटनियां उन कंपनियों में हुई जिन्होंने AI के प्रमुख बनने से पहले ही भर्ती की थी।

- He emphasized that **accountability** is catching up with **young tech companies** that sold themselves on potential but failed to **monetize** it.

उन्होंने जोर दिया कि **जवाबदेही** उन **युवा तकनीकी कंपनियों** तक पहुंच रही है, जिन्होंने खुद को संभावनाओं पर बेचा लेकिन इसे **आर्थिक रूप से सफल बनाने** में विफल रहीं।

Big Tech's Large Capex

बड़ी टेक कंपनियों का बड़ा पूंजीगत खर्च

- **Microsoft** will spend over **\$80 billion** in the current fiscal year, which is a jump of more than **\$30 billion** compared to the previous year.
माइक्रोसॉफ्ट इस वित्तीय वर्ष में **80 अरब डॉलर** से अधिक खर्च करेगा, जो पिछले वर्ष की तुलना में **30 अरब डॉलर** से अधिक की वृद्धि है।
- **Meta** raised its capital expenditure guidance for **2024 to \$38-40 billion**, citing acceleration in costs for data centers and AI infrastructure.
मेटा ने **2024** के लिए अपने पूंजीगत खर्च को बढ़ाकर **38-40 अरब डॉलर** कर दिया, डेटा केंद्रों और AI संरचना की लागत में तेजी के कारण।
- **Alphabet** reported **\$13 billion** in capital expenditures in the **third quarter**, with plans to maintain this level in the fourth quarter.
अल्फाबेट ने तीसरी तिमाही में **13 अरब डॉलर** का पूंजीगत खर्च रिपोर्ट किया और इसे चौथी तिमाही में बनाए रखने की योजना है।
- **Andy Jassy**, CEO of Amazon, plans to spend **\$75 billion** on capex in **2024** and expects even higher expenditures in **2025**.
एंडी जस्सी, अमेज़न के सीईओ, ने **2024** में **75 अरब डॉलर** के पूंजीगत खर्च की योजना बनाई है और **2025** में इससे भी अधिक खर्च की उम्मीद है।

Challenges in Monetizing AI

AI को आर्थिक रूप से सफल बनाने में चुनौतियां

- **Thomas Monteiro**, lead analyst at Investing.com, stated that AI hasn't grown enough to replace the **bulk of human workers** but has changed company priorities.
थॉमस मोंटेइरो, इनवेस्टिंग.कॉम के प्रमुख विश्लेषक, ने कहा कि AI ने **मानव श्रमिकों के बड़े हिस्से** को प्रतिस्थापित करने के लिए पर्याप्त विकास नहीं किया है, लेकिन इसने कंपनी की प्राथमिकताओं को बदल दिया है।
- Labour force inflation and unclear monetization of AI are pushing companies to **become more efficient**, often by reducing expenses or workers.
श्रम बल की **मुद्रास्फीति** और AI के अस्पष्ट आर्थिक लाभ कंपनियों को **अधिक कुशल बनने** के लिए मजबूर कर रहे हैं, अक्सर खर्च या कर्मचारियों को कम करके।





- Companies like **Intel** have faced consequences for not adapting to AI. Intel announced layoffs of **15,000 employees** in **August** to accommodate a **\$10 billion savings plan**.
इंटेल् जैसी कंपनियों ने AI को अपनाने में देरी के परिणाम भुगते। इंटेल् ने अगस्त में **15,000 कर्मचारियों** की छंटनी की घोषणा की ताकि **10 अरब डॉलर की बचत योजना** को समायोजित किया जा सके।

Layoffs: Unavoidable Reality

छंटनियां: एक अपरिहार्य वास्तविकता

- The market has been **ruthless** to companies ignoring AI opportunities. Intel was replaced by **Nvidia** on the **Dow Jones Industrial Average** index in **November**.
बाजार AI के अवसरों को नजरअंदाज करने वाली कंपनियों के प्रति **निर्दयी** रहा है। इंटेल् को **नवंबर** में **डाउ जॉन्स इंडस्ट्रियल एवरेज** इंडेक्स में **एनवीडिया** द्वारा प्रतिस्थापित किया गया।
- Mr. Monteiro concluded that **layoffs are unavoidable** as companies balance **shareholder value** with **consumer value** in a competitive world.
श्री मोंटेइरो ने निष्कर्ष निकाला कि **छंटनियां अपरिहार्य** हैं क्योंकि कंपनियां प्रतिस्पर्धी दुनिया में **शेयरधारक मूल्य** और **उपभोक्ता मूल्य** के बीच संतुलन बनाती हैं।

'Trump's return a nightmare for China and Europe'

Trump's presidency is likely to shake up the world at a time when the old liberal international order has reached the end of its tether with a new one yet to fully take shape; his leadership is expected to reshape global dynamics, unsettling his liberal counterparts, says the senior BJP leader

GS Paper II: Global World Order

INTERVIEW

Ram Madhav

Nistula Hebbur

Ram Madhav, former national general secretary of the Bharatiya Janata Party and currently president of the conservative think tank India Foundation, speaks to *The Hindu* on the U.S. election results, and the largely post-Second World War "liberal project", which promotes a political and economic system that places importance on individual freedom, democratic government, and open markets. Edited excerpts:

What does the victory for Donald Trump mean for the world order and the 'liberal project'?

Donald Trump secured a majority in the popular vote, and also a majority in both wings of U.S. Congress, the Senate and the House, leading most analysts to interpret this as a more forceful return of the Trump 1.0 era of unpredictability and transactionalism, that it would be worse than his previous term.

However, going by the way he took no time in announcing key appointments, and some of the policy announcements that he was making after the election, it is clear that Trump 2.0 is going to be different.

Interestingly, Mr. Trump's return with a vengeance has become a nightmare for not only the radical liberals but also for China and Europe, which expect him to be harsh with them on several issues. All in all, his presi-



dency is likely to shake up the world at a time when the old liberal international order has reached the end of its tether with a new one yet to fully take shape. Mr. Trump will certainly be seen as a strong supporter by the rising Conservative and nationalist leaders in Europe and elsewhere, while his liberal counterparts in Europe are likely to face some heat.

Trump has broken new ground among Latinos and Black voters. How did that happen?

If one dissects the mandate, it becomes clear that Mr. Trump was able to break new ground as a rejection of the liberal politics that went too far in championing causes like illegal migrations and 'wokeness'. It must be borne in mind that not all Latinos in America, like not all Indians for that matter, are illegals (illegal immigrants). They didn't like the Democrat rhetoric of supporting illegal migrations from the Latin American countries, which were increasingly erasing the line between legal and illegal migrants, thus subjecting all Latinos to the same treatment from White Americans.

On the contrary, Mr. Trump's distinction between legal and illegal migrations was welcomed by them.

The more important

reason appears to be the total rejection of 'wokeism' and associated politics championed by the Democratic Party. 'Wokeism' reached alarming proportions in America where all decent citizens felt threatened over the future of their children and families.

Finally, American society as a whole has yet to overcome its sexist or gender prejudices. When pitched against women candidates, Mr. Trump romped home easily as against a male candidate like Joe Biden in 2020. It may be a contested argument, but can't be dismissed fully.

Has the idea of representative politics changed with the defeat of Kamala Harris, following from this support for Trump among otherwise Democrat supporters?

Kamala Harris's defeat can be attributed to several reasons, one of them being the gender bias at the subterranean level in American society. But she also lost a section of the Democrat vote because she didn't pass through the litmus test of the Primaries, was seen as an Obama (former U.S. President Barack Obama) proxy imposed from the above by many even within the Democratic Party, and there was the problem of Mr. Biden's legacy that Ms. Harris couldn't shrug off in the brief window of three months of campaign.

However, it shouldn't be forgotten that despite all these odds, Ms. Harris still secured 48.4% popular vote. That shows that the Democrats still enjoy wide support in the country. (Full interview is at [newsthehindu.com/news-international/ram-madhav](https://www.newsthehindu.com/news-international/ram-madhav))





Trump's Return a Nightmare for China and Europe ट्रम्प की वापसी: चीन और यूरोप के लिए एक बुरा सपना

Trump's presidency is likely to shake up the world at a time when the old liberal international order has reached the end of its tether, with a new one yet to fully take shape.

ट्रम्प की राष्ट्रपति अवधि दुनिया को उस समय झकझोर सकती है जब पुराना उदार अंतर्राष्ट्रीय क्रम अपने अंतिम चरण में है और नया क्रम अभी पूरी तरह से आकार नहीं ले पाया है।

- His leadership is expected to reshape global dynamics, unsettling his **liberal counterparts** in Europe.
उनके नेतृत्व से वैश्विक गतिशीलता में बदलाव की उम्मीद है, जो यूरोप में उनके उदार समकक्षों को अस्थिर कर सकता है।
- **Ram Madhav**, former BJP national general secretary and president of the **India Foundation**, described Trump's return as a nightmare for **China and Europe**.
राम माधव, पूर्व भाजपा राष्ट्रीय महासचिव और इंडिया फाउंडेशन के अध्यक्ष ने ट्रम्प की वापसी को चीन और यूरोप के लिए एक बुरा सपना बताया।

Victory for Donald Trump and Its Impact on the Liberal Project डोनाल्ड ट्रम्प की जीत और उदार परियोजना पर इसका प्रभाव

- **Donald Trump** secured a majority in the **popular vote** and both wings of the **U.S. Congress**—the Senate and the House—indicating a return of the **Trump 1.0 era** of unpredictability and transactionalism.
डोनाल्ड ट्रम्प ने लोकप्रिय वोट और अमेरिकी कांग्रेस के दोनों सदनों—सेनेट और हाउस—में बहुमत हासिल किया, जो ट्रम्प 1.0 युग की अनिश्चितता और लेन-देन प्रणाली की वापसी को इंगित करता है।
- Analysts believe **Trump 2.0** will be different, as evidenced by his quick **policy announcements** and key appointments after the election.
विश्लेषकों का मानना है कि ट्रम्प 2.0 अलग होगा, जैसा कि चुनाव के बाद उनके तेज़ नीति घोषणाओं और महत्वपूर्ण नियुक्तियों से स्पष्ट है।
- His presidency has become a **nightmare** not only for **radical liberals** but also for **China and Europe**, as he is expected to be harsh with them on various issues.
उनकी राष्ट्रपति अवधि कट्टर उदारवादियों, चीन, और यूरोप के लिए एक बुरा सपना बन गई है क्योंकि उनसे कई मुद्दों पर कठोर रहने की उम्मीद है।





Trump's Popularity Among Latinos and Black Voters

लैटिनो और अश्वेत मतदाताओं के बीच ट्रम्प की लोकप्रियता

- Trump broke new ground among **Latinos** and **Black voters** by rejecting liberal politics that championed causes like **illegal migration** and 'wokeness.'
ट्रम्प ने लैटिनो और अश्वेत मतदाताओं के बीच नई जगह बनाई, उदार राजनीति को खारिज करके जो अवैध प्रवासन और 'वोकनेस' जैसे कारणों का समर्थन करती थी।
- He distinguished between **legal and illegal migration**, which was welcomed by many Latinos who disliked the **Democrat rhetoric** of supporting illegal migrations.
उन्होंने कानूनी और अवैध प्रवासन के बीच अंतर किया, जिसे कई लैटिनो ने सराहा, जो अवैध प्रवासन का समर्थन करने वाली **डेमोक्रेट बयानबाज़ी** को नापसंद करते थे।
- The rejection of **wokeism** also played a significant role, as many Americans felt threatened over the future of their **children and families**.
वोकनेस की अस्वीकृति ने भी महत्वपूर्ण भूमिका निभाई, क्योंकि कई अमेरिकी अपने बच्चों और परिवारों के भविष्य को लेकर चिंतित महसूस कर रहे थे।

Kamala Harris's Defeat and Changing Dynamics in Representative Politics

कमला हैरिस की हार और प्रतिनिधित्व की राजनीति में बदलते समीकरण

- Kamala Harris's defeat is attributed to **gender bias** in American society and her inability to shake off Mr. Biden's legacy.
कमला हैरिस की हार का कारण लैंगिक पूर्वाग्रह और श्री बाइडेन की विरासत से छुटकारा पाने में उनकी असमर्थता मानी जाती है।
- She was also seen as an **Obama proxy**, imposed by the Democratic Party without passing the litmus test of Primaries.
उन्हें ओबामा का प्रतिनिधि माना गया, जिसे डेमोक्रेटिक पार्टी ने प्राइमरी की परीक्षा पास किए बिना थोप दिया।
- Despite these odds, she secured **48.4% of the popular vote**, showing continued Democrat support in the U.S. इन बाधाओं के बावजूद, उन्होंने **48.4% लोकप्रिय वोट** हासिल किए, जो अमेरिका में डेमोक्रेट का निरंतर समर्थन दिखाता है।



Chandigarh leads in enforcing criminal laws

Union Territory is first in the country to implement three new laws in their entirety; it has ramped up Internet speed at police stations, provided new tablets to investigators, and set up videoconferencing facilities for speedy trials; the police also use the DigiLocker service to store digital evidence

GS Paper II: three New Laws

Vijaita Singh
CHANDIGARH

Five months after three criminal laws came into effect in the country, Chandigarh has become the first among all States and Union Territories to implement the laws in their entirety.

To link key pillars of the criminal justice system – the police, forensics and judiciary – the Chandigarh administration has ramped up Internet speed at police stations, provided new tablets to investigators, and set up videoconferencing facilities for speedy trials.

The police are also using “Chitra Khoji”, a facial recognition software developed by the government, to match photos of suspects with a database of 1 crore prisoners.

DigiLocker, the government’s cloud-based wallet to store documents such as driving licence and Aadhaar, is being used to upload crime scene videos and related information.

Director-General of Police S.S Yadav said since the laws were rolled out on Ju-



Training session: Kanwardeep Kaur, Senior Superintendent of Police, Chandigarh, explains the various facets of the new criminal laws during a programme on Sunday. VIJAITA SINGH

ly 1, the police had registered 1,179 first information reports (FIRs) and 245 chargesheets, and secured conviction in four cases.

The Bharatiya Nyaya Sanhita, Bharatiya Sakshya Adhinyam, and Bharatiya Nagarik Suraksha Sanhita replaced the Indian Penal Code of 1860, the Indian Evidence Act of 1872, and the Code of Criminal Procedure of 1898, respectively.

As these laws require

upgrading infrastructure and forensic capabilities, the States have been given five years to implement all aspects of the laws.

Conviction rate

Home Minister Amit Shah said on December 3 that the new laws had improved conviction rate from 58% to around 85%. Across the country, more than 11 lakh FIRs were filed under the new laws and judgments delivered in

9,500 cases, he added. The new laws have provisions for time-bound investigation and trial and registration of Zero FIRs irrespective of jurisdiction.

Senior Superintendent of Police Kanwardeep Kaur said the Chandigarh Police had registered 14 Zero FIRs since July 1 and all cases pertained to sexual offences against women.

“If a victim files a Zero FIR for a sexual offence at a police station, the police

have to complete formalities such as medical examination and send the report online to the police station concerned,” Ms. Kaur said.

The officer said a woman who was sexually assaulted in Delhi filed a case after arriving in Chandigarh, two months after the crime was committed, as she was under the influence of the accused.

The Chandigarh Police recently transferred another Zero FIR case to the Andaman and Nicobar Police as the crime occurred there and the victim, being a Chandigarh resident, chose to complain here.

There are 20 police stations in Chandigarh, including specialised units. As the new law mandates mandatory audiovisual recording of crime scenes and search-and-seizure procedures, police stations were provided 170 tablets, Mr. Yadav said.

“The audio-video recording has a time stamp and once uploaded on DigiLocker, it cannot be tampered with as a hash value is generated. The courts can also access the record-

ing. Since the video cannot be downloaded, the chain of custody is intact,” Ms. Kaur said.

Digitising courts

At least two courts have become fully online and preparation is on to digitise 30 other courts.

“The new laws have provisions to produce an accused through videoconferencing in a court. It saves resources, fuel and is also safe. In heinous cases, online trial is preferred,” the officer said.

Another official said owing to the sensitivity of the cases registered against alleged gangster Lawrence Bishnoi, he joins all cases in court through videoconference.

“In Chandigarh, 80 videoconferencing spots have been identified, which include hospitals, forensic stations and courts where government officials can depose. Five videoconferencing spots are also being set up at the offices of sub-divisional magistrates for private witnesses to depose online,” Ms. Kaur said.

Chandigarh Leads in Enforcing Criminal Laws

चंडीगढ़ ने आपराधिक कानूनों को लागू करने में बढ़त बनाई

Chandigarh has become the first among all States and Union Territories to implement the three new criminal laws in their entirety, five months after their enforcement.

चंडीगढ़ पहला राज्य और केंद्रशासित प्रदेश बन गया है जिसने तीन नए आपराधिक कानूनों को पूरी तरह लागू किया है, इन कानूनों के लागू होने के पांच महीने बाद।

- To link key pillars of the **criminal justice system** — the police, forensics, and judiciary — Chandigarh administration has **ramped up Internet speed** at police stations, provided **new tablets** to investigators, and set up **videoconferencing facilities** for speedy trials.





आपराधिक न्याय प्रणाली के मुख्य स्तंभों – पुलिस, फॉरेंसिक और न्यायपालिका को जोड़ने के लिए, चंडीगढ़ प्रशासन ने पुलिस स्टेशनों पर **इंटरनेट स्पीड बढ़ाई**, जांचकर्ताओं को **नए टैबलेट** उपलब्ध कराए और **वीडियो कॉन्फ्रेंसिंग सुविधाएं** स्थापित कीं।

- The police are also using “**Chitra Khoji**”, a **facial recognition software** developed by the government, to match photos of suspects with a database of **1 crore prisoners**. पुलिस “**चित्र खोजी**” नामक चेहरा पहचानने वाला **सॉफ्टवेयर** का उपयोग कर रही है, जो संदिग्धों की तस्वीरों को **1 करोड़ कैदियों** के डेटाबेस से मिलाने में मदद करता है।
- **DigiLocker**, the government’s cloud-based wallet, is being used to **upload crime scene videos** and related information.

डिजीलॉकर, सरकार के क्लाउड-आधारित वॉलेट का उपयोग **अपराध स्थल के वीडियो** और संबंधित जानकारी अपलोड करने के लिए किया जा रहा है।

- Director-General of Police **S.S. Yadav** said that since the rollout of the laws on **July 1, 2023**, the police had registered **1,179 FIRs**, filed **245 chargesheets**, and secured convictions in **four cases**.

पुलिस महानिदेशक **एस.एस. यादव** ने बताया कि **1 जुलाई 2023** को इन कानूनों के लागू होने के बाद से पुलिस ने **1,179 एफआईआर**, **245 चार्जशीट** दर्ज कीं और **चार मामलों** में दोषसिद्धि सुनिश्चित की।

- The new laws — **Bharatiya Nyaya Sanhita**, **Bharatiya Sakshya Adhinyam**, and **Bharatiya Nagarik Suraksha Sanhita** — replaced the **Indian Penal Code of 1860**, **Indian Evidence Act of 1872**, and **Code of Criminal Procedure of 1898**, respectively. नए कानून – **भारतीय न्याय संहिता**, **भारतीय साक्ष्य अधिनियम**, और **भारतीय नागरिक सुरक्षा संहिता** — ने क्रमशः **1860 का भारतीय दंड संहिता**, **1872 का भारतीय साक्ष्य अधिनियम**, और **1898 की दंड प्रक्रिया संहिता** को बदल दिया।

- Home Minister **Amit Shah** stated on **December 3, 2023**, that the new laws had improved the conviction rate from **58% to 85%**.

गृह मंत्री **अमित शाह** ने **3 दिसंबर 2023** को बताया कि नए कानूनों ने दोषसिद्धि दर को **58% से 85%** तक बढ़ा दिया है।

- Across the country, more than **11 lakh FIRs** were filed under the new laws, and judgments were delivered in **9,500 cases**.

देशभर में नए कानूनों के तहत **11 लाख से अधिक एफआईआर** दर्ज की गईं और **9,500 मामलों** में फैसले सुनाए गए।

- The Chandigarh Police registered **14 Zero FIRs** since **July 1, 2023**, primarily concerning **sexual offenses against women**.

चंडीगढ़ पुलिस ने **1 जुलाई 2023** से अब तक **14 जीरो एफआईआर** दर्ज कीं, जिनमें मुख्य रूप से **महिलाओं के खिलाफ यौन अपराध** शामिल थे।

- **170 tablets** were provided to police stations to ensure **mandatory audio-visual recording** of crime scenes and search-and-seizure procedures, as mandated by the new laws.

नए कानूनों के तहत अनिवार्य **ऑडियो-वीडियो रिकॉर्डिंग** सुनिश्चित करने के लिए पुलिस स्टेशनों को **170 टैबलेट** उपलब्ध कराए गए।





- Two courts in Chandigarh have become **fully digitized**, with plans to digitize **30 other courts**.
चंडीगढ़ में दो अदालतें पूरी तरह डिजिटल हो गई हैं, और 30 अन्य अदालतों को डिजिटल बनाने की योजना है।
- **80 videoconferencing spots** have been identified across Chandigarh, including **hospitals, forensic stations, and courts**.
चंडीगढ़ में 80 वीडियो कॉन्फ्रेंसिंग स्थलों की पहचान की गई है, जिसमें अस्पताल, फॉरेंसिक स्टेशन और अदालतें शामिल हैं।

OUAGADOUGOU

Burkina Faso's military junta appoints new Prime Minister

GS Paper II: IR



AFP

Burkina Faso's ruling military junta appointed a new Prime Minister, a day after dissolving the government without providing any reason. **Rimalba Jean Emmanuel Ouedraogo (in picture)**, until now communications minister and spokesperson of the government, will be the West African country's new Prime Minister. AP

dissolving the government without any stated reason.

यह नियुक्ति सरकार को भंग किए जाने के एक दिन बाद बिना किसी कारण के की गई।

Burkina Faso's Military Junta Appoints New Prime Minister

बुर्किना फासो की सैन्य जुंटा ने नए प्रधानमंत्री की नियुक्ति की

- Burkina Faso's **ruling military junta** appointed a new Prime Minister, Rimalba Jean Emmanuel Ouedraogo, who was previously the **communications minister** and government spokesperson.
बुर्किना फासो की सत्तारूढ़ सैन्य जुंटा ने रिमटल्बा जीन इमैनुएल औएद्राओगो को नए प्रधानमंत्री के रूप में नियुक्त किया, जो पहले संचार मंत्री और सरकारी प्रवक्ता थे।
- This appointment came **a day after**



ACCRA GS Paper II: IR

Ghana's former leader Mahama wins presidential election



AP

Ghana's Vice-President and ruling party candidate, Mahamudu Bawumia, conceded defeat on Sunday to opposition candidate and former President John Dramani Mahama in the West African nation's presidential election seen as a vote of no-confidence in the current government's handling of an ailing economy. AP

PARIS GS Paper II: IR

France's Notre Dame holds first mass after five-year restoration



AFP

Newly restored Notre Dame cathedral held its first mass on Sunday, with Christians celebrating the return of the French capital's most famous place of worship after a historic re-opening ceremony. The Paris monument nearly burned down in 2019, but has been fully renovated inside and fitted with a new roof and spire. AFP

पुनर्स्थापित किया गया है।

Ghana's Former Leader Mahama Wins Presidential Election

घाना के पूर्व नेता महामा ने राष्ट्रपति चुनाव जीता

- Ghana's Vice-President and ruling party candidate, Mahamudu Bawumia, conceded defeat to opposition candidate and former President John Dramani Mahama.

घाना के उप-राष्ट्रपति और सत्तारूढ़ पार्टी के उम्मीदवार महमुदू बाउमिया ने विपक्षी उम्मीदवार और पूर्व राष्ट्रपति जॉन ड्रामानी महामा से हार मान ली।

- This election was seen as a vote of no-confidence in the government's handling of the ailing economy.

यह चुनाव सरकार की बीमार अर्थव्यवस्था से निपटने के तरीके पर अविश्वास प्रस्ताव के रूप में देखा गया।

France's Notre Dame Holds First Mass After Five-Year Restoration

फ्रांस के नोट्रे डेम ने पांच साल के पुनर्स्थापन के बाद पहली प्रार्थना सभा आयोजित की

- Notre Dame Cathedral in Paris held its first mass after a five-year restoration.

पेरिस के नोट्रे डेम कैथेड्रल ने पांच साल के पुनर्स्थापन के बाद अपनी पहली प्रार्थना सभा आयोजित की।

- The cathedral was nearly destroyed by fire in 2019 and has now been fully renovated with a new roof and spire.

यह कैथेड्रल 2019 में आग से लगभग नष्ट हो गया था और अब इसे नई छत और शिखर के साथ पूरी तरह से



PORT SUDAN GS Paper II: IR

Sudan rescuers say 28 killed in shelling of Khartoum fuel station



AFP

A Sudanese network of volunteer rescuers said that 28 civilians were killed Sunday when a fuel station in an area of Khartoum under paramilitary control came under shelling. The youth-led volunteer group also said “the number of injured reached 37, including 29 burn cases” and some shrapnel injuries. AFP

कुछ छर्रे से लगी चोटें शामिल हैं।

Australia PM terms synagogue fire an act of ‘terrorism’

PCS

Agence France-Presse
SYDNEY

Prime Minister Anthony Albanese on Sunday called a deliberately lit fire in a Melbourne synagogue an act of “terrorism” and warned about the “worrying rise in anti-Semitism” in Australia.

Mask-wearing arsonists set the Adass Israel Synagogue in a Melbourne suburb of Ripponlea ablaze before dawn on Friday, gutting much of the building, though there were no serious injuries. Authorities are still on the

hunt for the perpetrators.

Mr. Albanese said on Sunday the fire at the synagogue was the “definition of terrorism”.

‘Rise in anti-Semitism’

“There has been a worrying rise in anti-Semitism,” Mr. Albanese told reporters, adding that he would continue to “call it out”. “Terrorism is something that is aimed at creating fear in the community and the atrocities that occurred at the synagogue in Melbourne clearly were designed to create fear in the community,” he said.

Sudan Rescuers Say 28 Killed in Shelling of Khartoum Fuel Station

सूडानी बचावकर्ताओं ने खार्तूम ईंधन स्टेशन पर गोलाबारी में 28 लोगों के मारे जाने की सूचना दी

• A Sudanese volunteer rescue network reported that 28 civilians were killed when a fuel station in Khartoum came under shelling.

सूडान के एक स्वयंसेवी बचाव नेटवर्क ने बताया कि खार्तूम में एक ईंधन स्टेशन पर गोलाबारी में 28 नागरिक मारे गए।

• The attack also left 37 injured, including 29 burn cases and some shrapnel injuries.

इस हमले में 37 लोग घायल हुए, जिनमें 29 जलने के मामले और

Australia PM Terms Synagogue Fire an Act of ‘Terrorism’

ऑस्ट्रेलिया के प्रधानमंत्री ने आराधनालय में आग को 'आतंकवाद' करार दिया

• Prime Minister Anthony Albanese on Sunday called the deliberately lit fire in a Melbourne synagogue an act of “terrorism” and warned about the “worrying rise in anti-Semitism” in Australia.

प्रधानमंत्री एंथनी अल्बनीज़ ने रविवार को मेलबर्न के एक आराधनालय में जानबूझकर लगाई गई आग को 'आतंकवाद' करार दिया और ऑस्ट्रेलिया में 'यहूदी-विरोधी में चिंताजनक वृद्धि' पर चेतावनी दी।

• Mask-wearing arsonists set the Adass Israel Synagogue in a Melbourne suburb of Ripponlea ablaze before dawn on Friday, gutting much of the building, though there were





no serious injuries.

मास्क पहने हुए आगजनीकर्ताओं ने शुक्रवार सुबह से पहले मेलबर्न के उपनगर रिपोनली में एडास इज़रायल आराधनालय को आग के हवाले कर दिया, जिससे भवन का बड़ा हिस्सा जल गया, हालांकि कोई गंभीर चोटें नहीं आईं।

- Authorities are **still on the hunt** for the perpetrators. अधिकारियों द्वारा अपराधियों की अब भी तलाश जारी है।
- Mr. Albanese said on Sunday the **fire at the synagogue** was the “**definition of terrorism**”.

श्री अल्बनीज़ ने रविवार को कहा कि आराधनालय में लगी आग 'आतंकवाद की परिभाषा' है।

‘Rise in Anti-Semitism’

‘यहूदी-विरोधी में वृद्धि’

- “There has been a **worrying rise in anti-Semitism**,” Mr. Albanese told reporters, adding that he would continue to “**call it out**”.

‘यहूदी-विरोधी में चिंताजनक वृद्धि’ हुई है,” श्री अल्बनीज़ ने संवाददाताओं से कहा और यह भी जोड़ा कि वह इसे 'खुलेआम उजागर' करते रहेंगे।

- “Terrorism is something aimed at **creating fear** in the community, and the **atrocities at the synagogue in Melbourne** were clearly designed to create **fear in the community**,” he said.

“आतंकवाद का उद्देश्य समुदाय में डर पैदा करना होता है, और मेलबर्न के आराधनालय में जो क्रूरता हुई, वह स्पष्ट रूप से समुदाय में भय उत्पन्न करने के लिए की गई थी,” उन्होंने कहा।

Synagogue

- A synagogue is a Jewish place of worship, study, and community gathering. Synagogues hold a central place in Jewish religious and cultural life, serving as a space for prayer, education, and social interaction.
- The term “synagogue” is derived from the Greek word “synagein,” meaning “to bring together.”

सिनागॉग शब्द ग्रीक शब्द "सिनेजीन" से लिया गया है, जिसका अर्थ है "इकट्ठा करना"।

- Synagogues are often referred to by other names, such as "Shul" in Yiddish or "Bet Kneset" in Hebrew.

सिनागॉग को अक्सर अन्य नामों से जाना जाता है, जैसे कि यिद्दिश में "शुल" या हिब्रू में "बेत केनेसट"।

Historical Background

- Synagogues have existed since the Babylonian exile (6th century BCE) when Jews began congregating in homes or designated spaces for prayer and Torah study after the destruction of the First Temple in Jerusalem.

सिनागॉग का अस्तित्व बेबीलोनियन निर्वासन (6वीं सदी ईसा पूर्व) से है, जब यहूदियों ने





यरूशलेम के प्रथम मंदिर के विनाश के बाद प्रार्थना और तोराह अध्ययन के लिए घरों या निर्दिष्ट स्थानों में इकट्ठा होना शुरू किया।

- The synagogue became more significant after the destruction of the Second Temple in 70 CE as the primary institution for Jewish worship and community life.

70 ईस्वी में दूसरे मंदिर के विनाश के बाद सिनागॉग यहूदी पूजा और सामुदायिक जीवन का मुख्य केंद्र बन गया।

- **Design and Structure:** Synagogues vary in design, but they commonly have an Ark (Aron Kodesh) containing Torah scrolls, a Bimah (platform) for reading Torah, and seating arranged to face Jerusalem.

डिजाइन और संरचना: सिनागॉग का डिजाइन अलग-अलग होता है, लेकिन आमतौर पर इनमें एक आर्क (अरन कोदेश) होता है जिसमें तोराह स्कॉल रखे जाते हैं, बिमाह (मंच) तोराह पढ़ने के लिए होता है, और बैठने की व्यवस्था यरूशलेम की ओर होती है।

- **Role in the Community:** Synagogues serve as centers for prayer, religious study, celebrations of festivals, and community events.

समुदाय में भूमिका: सिनागॉग प्रार्थना, धार्मिक अध्ययन, त्योहारों के उत्सव और सामुदायिक कार्यक्रमों के केंद्र के रूप में कार्य करते हैं।

- **Rituals and Practices:** Daily, Sabbath, and holiday prayers are held in synagogues. Special ceremonies such as Bar/Bat Mitzvahs and weddings also take place here.

अनुष्ठान और प्रथाएं: सिनागॉग में दैनिक, सब्बाथ और अवकाश की प्रार्थनाएं की जाती हैं। यहां बार/बाट मिट्ज़वाह और शादियों जैसे विशेष समारोह भी आयोजित किए जाते हैं।

- **Synagogue in India**

• India has several historical synagogues, reflecting the rich Jewish heritage in regions like Kerala, Maharashtra, and West Bengal.

भारत में कई ऐतिहासिक सिनागॉग हैं, जो केरल, महाराष्ट्र और पश्चिम बंगाल जैसे क्षेत्रों में समृद्ध यहूदी विरासत को दर्शाते हैं।

- The **Paradesi Synagogue** in Kochi, Kerala (established in 1568), is one of the oldest synagogues in the Commonwealth.

कोच्चि, केरल में स्थित परदेशी सिनागॉग (1568 में स्थापित) राष्ट्रमंडल के सबसे पुराने सिनागॉग में से एक है।



Study brings Indian star tortoise to evidence-based conservation

Researchers have identified two genetically distinct groups of the species. The genetic divergences showed up as differences in physical features that could inform strategies on where and how to release and conserve rescued tortoises, Subhasree Sahoo, a Ph.D. student and first author of the study, says

GS Paper III: Environment

Sanjukta Mondal
BENGALURU

The Indian star tortoise (*Geochelone elegans*) is a sight to behold, with its obsidian shell and the striking sun-yellow star patterns adorning it. These tortoises are hardy herbivores and are popular as exotic house pets – but they shouldn't be. It's illegal to own one in India but also unethical since they are vulnerable in the wild.

Endemic to the subcontinent, Indian star tortoises reside in arid pockets of northwest India (bordering Pakistan), South India, and Sri Lanka. However, members of the species have also been found in people's homes as far afield as Canada and the U.S. The increasing demand for them as pets has entangled them in one of the largest global wildlife trafficking networks.

The Indian star tortoise is listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and in Schedule I of the Wildlife (Protection) Act 1972, which provides the highest level of protection to animals in Indian law. Despite this, officials have already seized hundreds of tortoises being smuggled through the Chennai and Singapore airports and across the India-Bangladesh border this year.

Wildlife biologist Sneha Dharwadkar, co-founder of an NGO called Freshwater Turtles and Tortoises of India, is worried that unscientific releases of the seized tortoises could worsen their fate. "We can no longer simply take confiscated tortoises and release them in nearby forests," Dharwadkar wrote in an email.

To find an alternative, researchers from the Wildlife Institute of India and Panjab University explored the diversity and natural distribution in India by sequencing the genomes of Indian star tortoise in zoos, wildlife reserves, and protected areas.

The study identified two genetically distinct groups of Indian star tortoises: northwestern and southern.

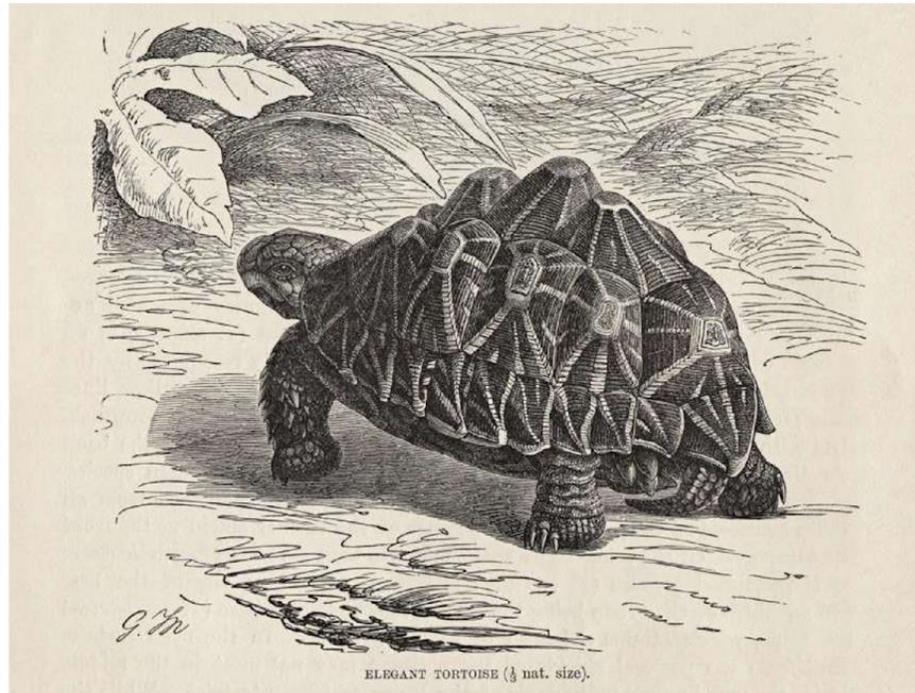
The genetic divergences showed up as differences in physical features that could inform strategies on where and how to release and conserve rescued tortoises, Subhasree Sahoo, a PhD student at the Wildlife Institute of India, Dehradun, and first author of the study, said.

Same but different

Millions of years ago, *Geochelone*, the group that includes the Indian star tortoise, spread across the Indian subcontinent after the latter split from the Gondwana supercontinent and collided with Eurasia.

Over time, parts of the subcontinent became arid and encouraged the growth of savannahs and open grasslands in northwestern and peninsular India, which are now the tortoises' natural habitats.

But the creation and expansion of



An engraving of an Indian star tortoise. THE ROYAL NATURAL HISTORY (1896)

savannahs came at the expense of humid forests: the increasingly seasonal nature of the monsoons restricted them to parts of southwest India and Sri Lanka. This separation of humid and dry areas paralleled the splitting of the tortoises into northern and southern groups about 2 million years ago.

To find genetic evidence of this split, the researchers of the new study collected tortoise tissue samples from 14 locations.

"These tortoises are very rare to encounter, so I chose the rainy season because that's the breeding season. They're the most active. That's also what poachers do," Sahoo said. With the help of frontline forest staff and local communities living near the tortoises' natural range, she was able to collect 38 samples from northwestern India and 44 from southern India.

Researchers prefer tortoises' blood samples for genetic testing but even small mistakes when drawing blood can cause profuse bleeding. This is manageable in controlled environments like zoos or wildlife reserves, and less so in the wild. "When I was in Kakatiya Zoo in Telangana, a zookeeper told me, 'Madam, why do you want to take blood? You can take the scutes, right? They come off very easily,'" Sahoo said. Scutes are keratin layers found on the tortoises' limbs, neck, and shell. "I peeled off some scute from the zoo in Kakatiya and tested [it] in the

The increasing demand for them as pets has entangled them in one of the largest global wildlife trafficking networks

lab, and it worked just fine."

Once collected, the researchers extracted DNA from the tissue samples. Then they sequenced the mitochondrial genes cytochrome B and NADH dehydrogenase 4. The gene for cytochrome B is highly conserved and used to identify subspecies-level differentiation and later to detect smaller genetic variations between the samples.

The researchers also screened 10 microsatellite markers: short DNA sequences that repeat in a particular location in the genome. They serve as a genome's fingerprint and are helpful to identify how individuals of the same species are related, how they mate, and recent changes in their population.

The results revealed that even after illegal poaching and unscientific releases, the northwestern group remains largely genetically unchanged whereas the southern group is highly diverse.

"For a long time, on-ground practitioners have suspected the presence of at least two evolutionarily significant units, or ESUs – populations of organisms considered distinct for conservation

purposes," Dharwadkar said. "This paper provides a reliable confirmation of that."

Restoring natural order

Sandeep Kumar Gupta, nodal officer at the Wildlife Institute of India, Dehradun, and corresponding author of the study said that since different Indian star tortoises are found in different areas, it's crucial to not mix the populations during release. Doing so might lower their genetic diversity and depress breeding rates.

Sahoo also raised the concern of shell-pyramiding in captive-bred star tortoises. These tortoises develop pyramid-shaped shells instead of the dome-like shells in the wild due to nutritional deficiencies, and can further complicate mating and breeding issues.

Gupta also emphasised greater public awareness of the legality of keeping certain species as pets and the importance of adhering to national laws on this front.

Overall, the team expressed belief in its paper that the findings could benefit both national and international agencies with evidence-based conservation of the Indian star tortoise.

(Sanjukta Mondal is a chemist-turned-science-writer with experience in writing popular science articles and scripts for STEM YouTube channels. sanjuktamondal.sm@gmail.com)

THE GIST

Endemic to the subcontinent, Indian star tortoises reside in arid pockets of northwest India (bordering Pakistan), South India, and Sri Lanka

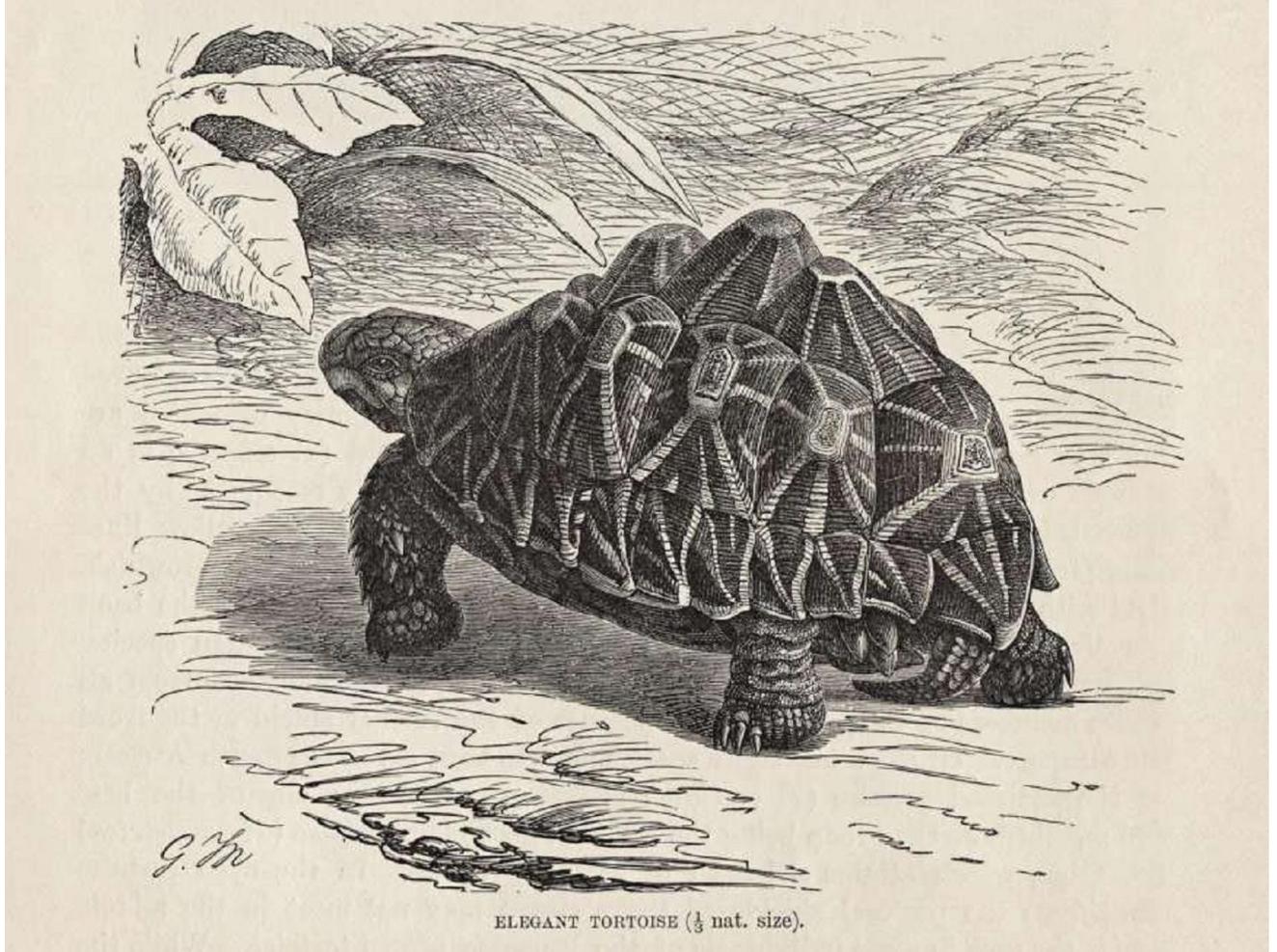
The Indian star tortoise is listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and in Schedule I of the Wildlife (Protection) Act 1972

Officials have already seized hundreds of tortoises being smuggled through the Chennai and Singapore airports and across the India-Bangladesh border this year



Study Brings Indian Star Tortoise to Evidence-Based Conservation

भारतीय तारा कछुए को साक्ष्य-आधारित संरक्षण में लाने का अध्ययन



Researchers have identified two genetically distinct groups of Indian star tortoises.

शोधकर्ताओं ने भारतीय तारा कछुए की दो आनुवंशिक रूप से अलग-अलग समूहों की पहचान की है।

- These genetic divergences appeared as **differences in physical features**, which could guide strategies for releasing and conserving rescued tortoises, according to **Subhasree Sahoo**, a Ph.D. student and the **first author** of the study.





ये आनुवंशिक विभाजन भौतिक विशेषताओं में भिन्नताओं के रूप में दिखाई दिए, जो बचाए गए कछुओं को छोड़ने और संरक्षित करने की रणनीतियों को निर्देशित कर सकते हैं, सुभाश्री साहू, जो अध्ययन की प्रथम लेखक और पीएचडी छात्रा हैं, ने कहा।

Significance of Indian Star Tortoise

भारतीय तारा कछुए का महत्व

- The Indian star tortoise (**Geochelone elegans**) has a striking appearance with an **obsidian shell** and **sun-yellow star patterns**.
भारतीय तारा कछुए (जियोचेलोन एलिगेंस) की विशेष पहचान उसकी काले पत्थर जैसी खोल और सूर्य-पीली तारा आकृतियों से है।
- These herbivorous tortoises are popular as **exotic house pets**, but owning one is **illegal** in India due to their **vulnerability in the wild**.
ये शाकाहारी कछुए अद्वितीय घरेलू पालतू जानवरों के रूप में लोकप्रिय हैं, लेकिन इन्हें रखना भारत में अवैध है क्योंकि ये जंगली में संकटग्रस्त हैं।
- Indian star tortoises are **endemic to the subcontinent**, residing in **arid areas** of northwest India, South India, and Sri Lanka.
भारतीय तारा कछुए भारतीय उपमहाद्वीप के स्थानीय प्रजाति हैं और उत्तर-पश्चिम भारत, दक्षिण भारत और श्रीलंका के शुष्क क्षेत्रों में रहते हैं।
- Despite being listed under **Appendix I of CITES** and **Schedule I of the Wildlife (Protection) Act 1972**, hundreds of tortoises have been **seized** this year during smuggling attempts via **Chennai and Singapore airports** and across the **India-Bangladesh border**.
साइट्स के परिशिष्ट I और वन्यजीव (संरक्षण) अधिनियम 1972 की अनुसूची I में सूचीबद्ध होने के बावजूद, इस वर्ष चेन्नई और सिंगापुर हवाईअड्डों और भारत-बांग्लादेश सीमा पर तस्करी के दौरान सैकड़ों कछुए पकड़े गए हैं।

Genetic Study Insights

आनुवंशिक अध्ययन की अंतर्दृष्टि

- Researchers from the **Wildlife Institute of India** and **Panjab University** sequenced the genomes of tortoises in zoos, wildlife reserves, and protected areas to explore their **diversity and natural distribution**.
भारतीय वन्यजीव संस्थान और पंजाब विश्वविद्यालय के शोधकर्ताओं ने चिड़ियाघरों, वन्यजीव अभयारण्यों और संरक्षित क्षेत्रों में कछुओं के जीनोम का अनुक्रमण किया ताकि उनकी विविधता और प्राकृतिक वितरण का पता लगाया जा सके।
- The study revealed **two genetically distinct groups: northwestern** and **southern**.
अध्ययन में दो आनुवंशिक रूप से अलग-अलग समूह सामने आए: उत्तर-पश्चिमी और दक्षिणी।
- The **split into northern and southern groups** occurred about **2 million years ago** due to the separation of **humid and dry areas** as the monsoon became more seasonal.





उत्तर और दक्षिण समूहों में विभाजन लगभग 20 लाख वर्ष पहले हुआ, जब मानसून के मौसमी बनने से नम और शुष्क क्षेत्रों का विभाजन हुआ।

Challenges and Methods

चुनौतियां और तरीके

- Researchers collected tissue samples from **14 locations**, gathering **38 samples** from northwestern India and **44 samples** from southern India during the **rainy season** when tortoises are most active.
शोधकर्ताओं ने **14 स्थानों** से ऊतक नमूने एकत्र किए, जिसमें उत्तर-पश्चिम भारत से **38 नमूने** और दक्षिण भारत से **44 नमूने बरसात के मौसम** के दौरान एकत्र किए गए, जब कछुए सबसे सक्रिय होते हैं।
- Instead of **blood samples**, researchers used **scutes** (keratin layers on limbs, neck, and shell), as suggested by zookeepers, to avoid risks of **profuse bleeding**.
रक्त के नमूनों के बजाय, शोधकर्ताओं ने चिड़ियाघर कर्मियों के सुझाव पर **स्क्यूट्स** (अंगों, गर्दन और खोल पर केराटिन परत) का उपयोग किया ताकि **अत्यधिक रक्तस्राव** के जोखिम से बचा जा सके।

Study Brings Indian Star Tortoise to Evidence-Based Conservation

भारतीय स्टार कछुआ को प्रमाण-आधारित संरक्षण में लाने के लिए अध्ययन

- Researchers extracted DNA from tissue samples and sequenced mitochondrial genes **cytochrome B** and **NADH dehydrogenase 4**.
शोधकर्ताओं ने ऊतक नमूनों से डीएनए निकाला और माइटोकॉन्ड्रियल जीन **साइटोक्रोम B** और **NADH डिहाइड्रोजनेज 4** का अनुक्रमण किया।
- The **cytochrome B gene** is highly conserved and used to identify subspecies-level differentiation and detect smaller genetic variations.
साइटोक्रोम B जीन अत्यधिक संरक्षित होता है और उपप्रजाति स्तर के भेदभाव की पहचान करने और छोटे आनुवंशिक भिन्नताओं का पता लगाने के लिए उपयोग किया जाता है।
- Researchers also screened **10 microsatellite markers**, short DNA sequences that repeat in a specific location in the genome.
शोधकर्ताओं ने **10 माइक्रोसैटेलाइट मार्करों** का परीक्षण किया, जो जीनोम में एक विशेष स्थान पर दोहराए गए छोटे डीएनए अनुक्रम होते हैं।
- Microsatellites serve as a **genome's fingerprint**, helping to identify relationships between individuals of the same species, mating patterns, and population changes.
माइक्रोसैटेलाइट्स जीनोम के फिंगरप्रिंट के रूप में कार्य करते हैं, जो एक ही प्रजाति के व्यक्तियों के बीच संबंध, प्रजनन पैटर्न और जनसंख्या परिवर्तनों की पहचान करने में मदद करते हैं।
- The results revealed that despite illegal poaching and unscientific releases, the **northwestern group** remains genetically unchanged, while the **southern group** is highly diverse.





परिणामों से पता चला कि अवैध शिकार और असांस्कृतिक रिलीज़ के बावजूद, **उत्तर-पश्चिमी समूह** आनुवंशिक रूप से अपरिवर्तित रहता है, जबकि **दक्षिणी समूह** अत्यधिक विविध है।

- **Dharwadkar**, a wildlife biologist, confirmed the presence of at least two **evolutionarily significant units (ESUs)**, populations considered distinct for conservation purposes. वन्यजीव जीवविज्ञानी धारवडकर ने **कम से कम दो विकासात्मक रूप से महत्वपूर्ण इकाइयों (ESUs)** की उपस्थिति की पुष्टि की, जो संरक्षण उद्देश्यों के लिए अलग मानी जाती हैं।

Restoring Natural Order

प्राकृतिक क्रम को बहाल करना

- **Sandeep Kumar Gupta**, nodal officer at the **Wildlife Institute of India, Dehradun**, stressed the importance of not mixing different populations during release to maintain genetic diversity and breeding rates. **संदीप कुमार गुप्ता**, नोडल अधिकारी, **वाइल्डलाइफ इंस्टीट्यूट ऑफ इंडिया, देहरादून**, ने रिलीज़ के दौरान विभिन्न जनसंख्या को मिलाने के महत्व पर जोर दिया, ताकि आनुवंशिक विविधता और प्रजनन दर को बनाए रखा जा सके।
- **Sahoo** raised concerns about **shell-pyramiding** in captive-bred star tortoises, which develop pyramid-shaped shells instead of the dome-like shells of wild tortoises due to nutritional deficiencies. **साहू** ने बंदी में पाले गए स्टार कछुओं में **शेल-पिरामिडिंग** को लेकर चिंता जताई, जो पोषण की कमी के कारण वन्य कछुओं के गुंबद जैसे शेल की बजाय पिरामिड आकार के शेल विकसित करते हैं।
- **Gupta** also emphasized the need for greater public awareness about the **legality of keeping certain species as pets** and the importance of adhering to national laws. **गुप्ता** ने यह भी जोर दिया कि **कुछ प्रजातियों को पालतू के रूप में रखने की वैधता** के बारे में सार्वजनिक जागरूकता बढ़ाने और राष्ट्रीय कानूनों का पालन करने की आवश्यकता है।
- The study's findings could benefit **national and international agencies in evidence-based conservation** of the Indian star tortoise. अध्ययन के निष्कर्ष **राष्ट्रीय और अंतर्राष्ट्रीय एजेंसियों** के लिए भारतीय स्टार कछुए के **प्रमाण-आधारित संरक्षण** में लाभकारी हो सकते हैं।

