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INDIA bloc divides seats for Jharkhand polls

JMM, Congress lay claim to 70 of 81 seats; RJD and Left parties express 'strong dissatisfaction' after being left to split the remaining 11 seats; RJD urges Chief Minister Soren to reconsider the decision; INDIA bloc taking this election very seriously, scrutinising every detail to present a united front against the BJP despite the internal friction, says Soren

GS Paper II: State Assemblies
PATNA

The INDIA (Indian National Inclusive, Developmental Alliance) bloc on Saturday announced the sharing of seats for the Jharkhand Assembly election among the Jharkhand Mukti Morcha (JMM), the Congress, the Rashtriya Janata Dal (RJD), and the Left parties.

Chief Minister Hemant Soren, accompanied by Jharkhand Congress in-charge Ghulam Ahmad Mir in Ranchi, announced that the JMM and the Congress would share 70 seats between them, and the RJD and Left parties would split the remaining 11.

"Every political party is preparing for the Assembly election, and people are keen to know which party will contest how many seats. We, the INDIA bloc, have taken this election seriously, and every aspect is being scrutinised. In this

election, the Left parties are also a part of our alliance," Mr. Soren said.

"At present, we have only decided on the number of seats. Other information regarding exact seats will be shared soon. I cannot share much information because some of our partners are not present right now," he said.

'Unilateral decision'

The RJD expressed dissatisfaction over the seat-sharing, terming it a "unilateral decision". The Left parties, too, expressed strong disapproval of the seat-sharing formula.

In 2019 Assembly election, the JMM contested in 43 seats and won 30; the Congress contested in 31 seats and won 16; and the RJD contested in seven seats but won only one.

With the merger of the Marxist Coordination Committee (MCC) into the Communist Party of India-Marxist-Leninist (CPI-ML),



Hemant Soren with Ghulam Ahmad Mir, Tejaswi Yadav and other leaders during a meeting to discuss seat-sharing. PTI

the Left party, a part of the INDIA bloc in Jharkhand, had demanded more seats. The Bagodar seat is currently represented by the CPI (ML)'s Vinod Kumar Singh, who supports Mr. Soren's government.

Sources said the CPI-ML was eyeing the Dhanwar, Bagodar, Nirsia Sindri, and Jamua seats, where the party held a support base. Similarly, the RJD was eyeing Manika, Bhawnathpur, Garhwa, Jamua, Jarmundi,

and Chatra.

A dissatisfied RJD urged Mr. Soren to reconsider the decision.

"We are here at the request of our leader Tejaswiji. We had a meeting this morning and it was decided that the RJD has the strength and the mass base. Last time, we contested seven seats because Laluji had a big heart - his goal was to oust the BJP, and the goal is the same even today," RJD Rajya Sab-

EC orders State gov't. to remove Acting DGP

RANCHI

Ahead of Jharkhand polls, the Election Commission on Saturday directed the State to remove Acting Director-General of Police Anurag Gupta from the post with immediate effect. The move was based on a "history" of complaints against him. » PAGE 3

ha MP Manoj Jha told media persons in Ranchi.

"We were runners up on five seats. The rest of our alliance partners may not have been runners-up in percentage terms on that many seats. With a heavy heart, I must say that a unilateral decision was taken. We were asked that so-and-so number is given to us. This is not according to the strength of the RJD nor according to the present situation. I will urge our al-

liance partners to take a decision accordingly," he added.

Mr. Jha said Tejaswi Yadav was present in Ranchi and "despite everyone [from the RJD] being there", they had not been involved in the allyship, which was "painful".

He said that the RJD had identified 15 to 18 seats in different districts where the party was capable of defeating the BJP on its own. Sources said the CPI (ML), which had originally given a list of 12 seats to JMM, was considering contesting solo, in case they were given less than seven seats.

Speaking to *The Hindu*, CPI(ML) general secretary Dipankar Bhattacharya said Mr. Soren's announcement violated the "spirit and decorum" of coalition politics. "The JMM and Congress made the announcement without consulting the other allies. This is not the way to take

forward the alliance," he said. "We will do what we will have to do," Mr. Bhattacharya said, when asked if his party would go solo.

CPI general secretary D. Raja, who was also in Ranchi, said the seat-sharing arrangement should be "reasonable". "Leaving 11 seats for the Left parties and the RJD to share is arbitrary. Let us see if the two parties are willing to be more accommodative," he said.

On Friday, the National Democratic Alliance (NDA) announced its seat-sharing arrangements, with the BJP keeping 68 seats, the All Jharkhand Students Union (AJSU) contesting in 10 seats, the Janata Dal-United (JD-U) in two seats, and the Chirag Paswan-led Lok Janshakti Party-Ram Vilas (LJP-RP) in one seat. (With inputs from Sobhana K. Nair)

CHAMPAIN ON BJP LIST
» PAGE 4

INDIA bloc divides seats for Jharkhand polls (20 October)

JMM, Congress lay claim to 70 of 81 seats; RJD and Left parties express 'strong dissatisfaction' after being left to split the remaining 11 seats; RJD urges Chief Minister Soren to reconsider the decision; INDIA bloc taking this election very seriously, scrutinising every detail to present a united front against the BJP despite the internal friction, says Soren

- The INDIA bloc announced seat sharing for the Jharkhand Assembly election among JMM, Congress, RJD, and Left parties.
- Chief Minister Hemant Soren and Jharkhand Congress in-charge Ghulam Ahmad Mir made the announcement in Ranchi.
- JMM and Congress will share 70 seats, while RJD and Left parties will split 11 seats.
- Soren stated that all parties are preparing seriously for the election and that the Left parties are part of the alliance.
- Specific details on exact seat allocations will be shared soon, as not all partners were present during the announcement.
- RJD expressed dissatisfaction, calling the seat-sharing a "unilateral decision."
- Left parties also disapproved of the seat-sharing formula.
- In the 2019 Assembly election, JMM contested 43 seats and won 30, Congress contested 31 and won 16, and RJD contested 7 and won 1.





- The merger of the Marxist Coordination Committee into CPI-ML led to demands for more seats from the Left parties.
- CPI-ML is eyeing Dhanwar, Bagodar, Nirsa Sindri, and Jamua seats where they have support.
- RJD is targeting Manika, Bhawnathpur, Garhwa, Jamua, Jarmundi, and Chatra seats.
- A dissatisfied RJD urged Soren to reconsider the seat-sharing decision.
- RJD leaders met at the request of Tejashwi Yadav to discuss seat-sharing.
- RJD claims to have the strength and mass base to contest more seats.
- Last election, RJD contested seven seats due to Lalu Prasad Yadav's goal of ousting the BJP, which remains unchanged.
- RJD's Bhattacharya stated they will act accordingly if necessary to go solo.
- CPI general secretary D. Raja called the seat-sharing arrangement "arbitrary" and emphasized the need for a reasonable division.
- NDA announced its seat-sharing: BJP will contest 68 seats, AJSU in 10, JD-U in 2, and LJP-RP in 1 seat.
- RJD identified 15 to 18 seats across districts where they believe they can defeat the BJP independently.
- CPI(ML) is considering contesting solo if they receive fewer than seven seats.
- Bhattacharya criticized Soren's announcement as violating coalition decorum, stating it was made without consulting allies.
- Manoj Jha from RJD expressed disappointment over a unilateral decision regarding seat allocations, arguing it doesn't reflect RJD's strength or the current political situation.

1. Jammu & Kashmir (J&K)

Historical Background: Jammu & Kashmir underwent a significant reorganization on **August 5, 2019**, when the **Jammu and Kashmir Reorganisation Act, 2019** was passed. This law abrogated **Article 370** and bifurcated the state into two Union Territories—**Jammu & Kashmir** (with a legislature) and **Ladakh** (without a legislature).

Current Legislature Structure: Jammu & Kashmir has a **unicameral Legislative Assembly**. In **March 2020**, the **Delimitation Commission** was formed to redraw the boundaries of constituencies before the next assembly elections. The **Delimitation Report** added **6 seats** to the Jammu division and **1 seat** to the Kashmir division, bringing the total seats in the assembly to **114**.

- **114 total seats:**
 - **24 seats** reserved for Pakistan-occupied Kashmir (PoK).
 - **43 seats** in Jammu Division.
 - **47 seats** in Kashmir Division.
- **5 nominated members.**



Recent Updates:

- **2024 Legislative Assembly Elections** are expected, pending the resolution of delimitation and security concerns. Jammu & Kashmir remains under **President's Rule** since **2018**.
- The **Delimitation Commission Report** (2022) will likely impact electoral outcomes by adjusting the seat allocation between Jammu and Kashmir regions.

Key Facts & Data:

- **Reorganisation Act Passed:** August 5, 2019.
- **Delimitation Commission Report:** 2022.
- **Next Elections Expected:** 2024.

2. Maharashtra

Historical Background: Maharashtra was formed on **May 1, 1960**, under the **States Reorganisation Act**. The state is economically and politically significant, with **Mumbai** being its financial hub.

Legislature Structure: Maharashtra has a **bicameral legislature**:

- **Legislative Assembly (Vidhan Sabha):** 288 seats.
- **Legislative Council (Vidhan Parishad):** 78 seats.

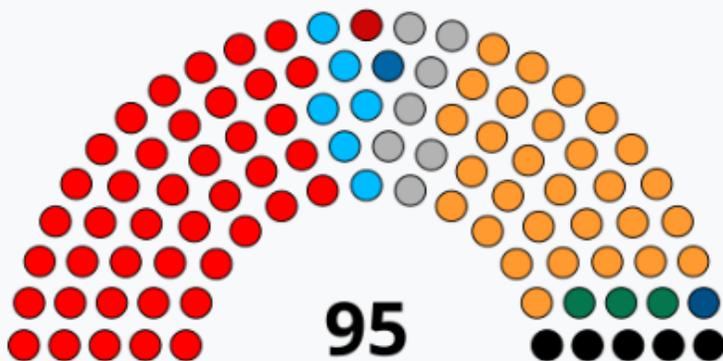
Recent Updates: Maharashtra faced political turmoil in **2022** when **Eknath Shinde** led a rebellion within the **Shiv Sena**, unseating Chief Minister **Uddhav Thackeray**. Shinde, with support from the **BJP**, took over as the Chief Minister. The state remains politically charged as it heads toward the **2024 General Elections**. Major infrastructure projects, such as the **Mumbai Trans Harbour Link** and **Navi Mumbai International Airport**, are focal points of the legislative agenda.

Key Facts & Data:

- **Formation Date:** May 1, 1960.
- **Current CM:** Eknath Shinde.

Seats

119 (90 seats + 24 seats reserved for **Pakistan occupied Jammu and Kashmir**) + 5 Nominated by LG



Political groups

Government (55)

- INDIA (55)
 - ■ JKNC (42)
 - ■ INC (6)
 - ■ CPI(M) (1)^[1]
 - ■ AAP (1)^[2]
 - ■ IND (5)^{[3][4]}

Official Opposition (29)

- BJP (29)

Other opposition (6)

- JKDP (3)
- JKPC (1)
- IND (2)

Nominated (5)

- NOM (5)



- **Legislative Assembly:** 288 seats.

3. Haryana

Historical Background: Haryana was formed on **November 1, 1966**, after being separated from Punjab. It is known for its agricultural dominance and rapid industrial growth, particularly in the **Gurgaon** and **Faridabad** regions.

Legislature Structure: Haryana has a **unicameral legislature**:

- **Legislative Assembly (Vidhan Sabha):** 90 seats.

Recent Updates: The **2024 Haryana Legislative Assembly elections** were held on **October 5, 2024**, with results declared on **October 8, 2024**. The **Election Commission of India** had announced the election schedule on **August 16, 2024**. Contrary to predictions from exit polls favoring the **Indian National Congress (INC)**, the **Bharatiya Janata Party (BJP)** won **48 seats** and secured a third consecutive term, making it the first party in Haryana's history to achieve this feat.

- **BJP** won **48 seats**.
- **Congress** secured **37 seats** despite a near-equal share in the popular vote.
- This election saw significant competition, but the BJP's organizational strength helped it retain power.

Key Facts & Data:

- **Election Date:** October 5, 2024.
- **Results Announced:** October 8, 2024.
- **BJP Seats:** 48.
- **Congress Seats:** 37.

4. Jharkhand

Historical Background: Jharkhand was carved out of Bihar on **November 15, 2000**, to cater to the tribal population's aspirations. It is rich in minerals like **coal**, **iron ore**, and **uranium** and faces challenges related to **Naxalism** and **tribal rights**.

Legislature Structure: Jharkhand has a **unicameral legislature**:

Turnout	67.90% (▼ 0.30%)	
		
Leader	Nayab Singh Saini	Bhupinder Singh Hooda
Party	BJP	INC
Alliance	NDA	INDIA
Leader since	2024	2005
Leader's seat	Ladwa (won)	Garhi Sampla-Kiloi (won)
Last election	36.49%, 40 seats	28.08%, 31 seats
Seats won	48	37
Seat change	▲ 8	▲ 6
Popular vote	5,548,800	5,430,602
Percentage	39.94%	39.09%
Swing	▲ 3.45%	▲ 11.01%



- **Legislative Assembly (Vidhan Sabha):** 81 seats.

Recent Updates: The **JMM-Congress coalition government**, led by **Hemant Soren**, has been in power since the **2019 elections**. Jharkhand faces significant political issues, including allegations against CM Soren regarding **mining lease violations**. Political activity is intensifying as the state approaches the **2024 elections**, and challenges like Naxalism, tribal welfare, and development remain key concerns.

Key Facts & Data:

- **Formation Date:** **November 15, 2000**.
- **Legislative Assembly:** 81 seats.
- **Next Election:** 2024

MALABAR series

The MALABAR series of naval exercises began in **1992** as a bilateral exercise between the **Indian Navy** and the **U.S. Navy** in the aftermath of the Cold War, reflecting the growing strategic partnership between the two democracies. It was suspended after India's nuclear tests in **1998** but resumed in **2002**. Since then, it has grown in complexity and expanded to include more participants, reflecting the increasing importance of the Indo-Pacific region.

Over the years, it has expanded into a quadrilateral exercise with the inclusion of **Japan** in **2015** and **Australia** in **2020**, symbolizing growing strategic cooperation in the Indo-Pacific region.

The **MALABAR-2024** exercise, held in **Visakhapatnam, India**, involved the navies of the **United States, India, Japan, and Australia**, all part of the **Quadrilateral Security Dialogue (QUAD)**. It focuses on enhancing maritime cooperation, interoperability, and strengthening the strategic relationship among the participating nations, particularly in the context of countering challenges in the Indo-Pacific region.

Key Features of MALABAR-2024:

1. **Participants:**
 - **Indian Navy**
 - **U.S. Navy**
 - **Japan Maritime Self-Defense Force (JMSDF)**
 - **Royal Australian Navy (RAN)**
2. **Location:** The exercise was conducted off the coast of **Visakhapatnam**, an important base of the Indian Navy on the eastern seaboard, in the Bay of Bengal.
3. **Purpose:**
 - Strengthening **interoperability** between the navies of the participating countries.
 - Training in **joint operations** such as anti-submarine warfare, surface warfare, and air defense operations.
 - Enhancing maritime domain awareness in the Indo-Pacific region.



- Fostering cooperation for **freedom of navigation** and **respect for international law**, particularly in light of rising maritime tensions in the South China Sea.

4. **Significance:**

- The exercise is a response to the increasing **strategic competition** in the Indo-Pacific region.
- It serves as a demonstration of the growing **defense cooperation** among QUAD members, which collectively aim to ensure a **free, open, and inclusive Indo-Pacific**.
- **MALABAR-2024** highlights the importance of maintaining the security and stability of critical sea lanes of communication, which are vital for global trade.

USS Dewey (DDG-105):

The **USS Dewey**, an **Arleigh Burke-class guided-missile destroyer** of the U.S. Navy, played a prominent role in **MALABAR-2024**. As one of the most advanced surface combatants of the U.S. Navy, it contributed to key exercises such as:

- **Surface warfare training:** Engaging in mock missile attacks and counter-missile operations.
- **Anti-submarine warfare:** Tracking simulated enemy submarines and honing submarine-hunting skills.
- **Air defense drills:** Involving cooperation with aircraft to practice detecting and countering airborne threats.



20 bomb threats in a day; security regulator meets CEOs of airlines

GS Paper II:
Regulatory Bodies

NEW DELHI

On a day when 20 bomb threats were issued to multiple airlines, the aviation security regulator, Bureau of Civil Aviation Security (BCAS), held a meeting with CEOs of various airlines to discuss ways to minimise disruptions from bomb hoaxes.

Saturday marked the sixth consecutive day of airlines receiving such threats.

“The meeting discussed ways to strike a balance between keeping the skies safe as well as to ensure minimum inconvenience to passengers and airlines,” said a senior official of the Union Home Ministry.

While most of the threats were made on X, a note warning of a bomb was also found in the lavatory of the Udaipur-Mumbai Vistara flight. More than 50 such threats have been issued since Monday.

Air India CEO Campbell Wilson, Air India Express CEO Alope Singh and Vistara CEO Vinod Kannan attended the meeting with Director-General of BCAS Zulfikar Hasan. IndiGo and Akasa Air sent their representatives. The BCAS official has met chief security officers of many airlines and ground handling agencies in the past few days.

“We have been able to ensure that no flight is diverted or delayed because

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



A note warning of a bomb was found in the lavatory of the Udaipur-Mumbai Vistara flight.

of these threats,” the MHA official said. The official added that each threat is analysed threadbare, following which a decision is taken to allow the flight to continue to its destination. Only 10% of the flights were subjected to secondary checks upon the aircraft’s arrival at its destination, which included searching the plane and frisking passengers.

Among the 20 flights that got hoax bomb threats on Saturday, six were Vistara flights and seven of IndiGo. Some flights on international routes were either delayed or diverted. These included Vistara’s Mumbai to Colombo flight, which was taken to a remote bay on arriving at its destination, delaying its 4 p.m. return to Mumbai by more than five hours. On Friday, Vistara’s Delhi to London flight was diverted to Frankfurt.



20 bomb threats in a day; security regulator meets CEOs of airlines (20 October)

- 20 bomb threats were issued to multiple airlines on Saturday.
- BCAS held a meeting with airline CEOs to discuss minimizing disruptions from bomb hoaxes.
- This marked the sixth consecutive day of such threats.
- The meeting aimed to balance aviation safety with passenger convenience.
- Most threats were made on social media platform X; a bomb warning was found in a lavatory on a Vistara flight.
- Over 50 threats have been reported since Monday.
- CEOs of Air India, Air India Express, and Vistara attended the meeting, while IndiGo and Akasa Air sent representatives.
- BCAS has also met with chief security officers of airlines and ground handling agencies recently.
- No flights have been diverted or delayed due to these threats, according to a Ministry of Home Affairs official.
- Each threat is thoroughly analyzed before decisions are made on flight continuation.
- Only 10% of flights underwent secondary checks, including plane searches and passenger frisking.
- Of the 20 flights that received threats, six were Vistara flights and seven were IndiGo.
- Some international flights experienced delays or diversions, such as Vistara's Mumbai to Colombo flight, which faced over five hours of delay.
- On Friday, Vistara's Delhi to London flight was diverted to Frankfurt.

Bureau of Civil Aviation Security (BCAS)

- The **Bureau of Civil Aviation Security (BCAS)** is the **aviation security regulator** in India, tasked with **safeguarding civil aviation operations against unlawful interference**. It functions under the **Ministry of Civil Aviation**.
- Established as a separate department in January 1987, BCAS was originally a wing under the **Directorate General of Civil Aviation (DGCA)**.
- However, after the hijacking of an Indian Airlines aircraft in 1986, BCAS was separated to intensify aviation security measures in India.

Key Functions and Mandate:

1. **Framing Aviation Security Regulations:** BCAS is responsible for developing and implementing security standards and procedures for airport security, aircraft security, and passenger safety.





2. **Oversight and Compliance:** It ensures compliance with **International Civil Aviation Organization (ICAO)** standards by conducting regular audits and inspections at airports.
3. **Coordination:** BCAS coordinates between various aviation stakeholders including the **CISF (Central Industrial Security Force)**, **DGCA**, and airport operators to enhance the effectiveness of security measures.
4. **Security Training:** BCAS provides specialized training programs for aviation security personnel to maintain high-security standards.
5. **Technology Upgradation:** The bureau also focuses on incorporating modern technology, such as **biometric screening**, **baggage scanners**, and **CCTV surveillance**, to tighten security at airports.

Recent Updates:

- **Implementation of Body Scanners:** In 2020, BCAS mandated the installation of **body scanners** at all Indian airports, replacing manual frisking.
- **COVID-19 Response:** During the COVID-19 pandemic, BCAS introduced special guidelines to ensure secure yet contactless passenger travel, involving the use of **Aarogya Setu App** and social distancing protocols at airports.
- **Drone Policy:** BCAS has also been actively involved in drafting the drone policy for civil aviation to prevent unauthorized drone activities near airports and sensitive zones.
- **International Collaborations:** BCAS frequently collaborates with foreign aviation security agencies and participates in global aviation security exercises for capacity building and knowledge sharing.

Historical Background and Legal Framework:

- The security framework is based on the **Aircraft Act, 1934** and the **Aircraft Rules, 1937**. Post-1986, in response to the increasing threat of hijackings and terrorist activities, the BCAS emerged as a dedicated body.
- BCAS draws its authority from guidelines set by the **ICAO**, of which India is a signatory.

Key Dates:

- **January 1987:** BCAS was established as a separate entity from DGCA.
- **2011:** BCAS became a full-fledged security regulator under the **Ministry of Civil Aviation**.





PATRIOTIC IAS



Kalaripayattu

- The name is derived from two words: "Kalari" meaning battlefield and "Payattu" meaning fight. It emphasizes physical agility, flexibility, and mental discipline, making it a complete martial art form.
- **Ancient Origins:** Kalaripayattu is believed to have originated in Kerala during the Sangam period (300 BCE–300 CE). Its techniques are inspired by the movements of animals like lions, tigers, elephants, and snakes.
- **Bodhidharma and Influence on Other Martial Arts:** A popular legend suggests that Bodhidharma, a 6th-century Buddhist monk, took Kalaripayattu to China, which later influenced the development of Shaolin martial arts.
- **Colonial Period:** During the British rule in India, Kalaripayattu was banned, as the British viewed it as a potential tool of rebellion. However, it survived through secret practices.



Sporty fight: Members of Kairali Kalari Sangam practising ahead of the district-level Kalaripayattu championship competition in Palakkad on Saturday. The competition is being organised by Palakkad District Kalaripayattu Association. K.K. MUSTAFAH

Key Features of Kalaripayattu:

1. **Physical Training:** Involves rigorous physical conditioning, including flexibility exercises, acrobatics, and balance.
2. **Weapon Training:** Practitioners train with various weapons such as swords (val), spears (kuntham), and daggers (katara). "Urumi", a flexible, whip-like sword, is one of the unique weapons used in Kalaripayattu.
3. **Self-defense and Striking Techniques:** Known for its deadly strikes and grappling techniques, Kalaripayattu also includes pressure point attacks, called **Marma** techniques.
4. **Mental Discipline and Healing Practices:** Practitioners of Kalaripayattu are also trained in healing methods, such as **Kalari Chikitsa**, a traditional form of treatment using herbal medicines.

Current Status and Government Initiatives:

- **Recognition:** Kalaripayattu has been recognized as an official sport by the **Ministry of Youth Affairs and Sports, Government of India**, under the "**Promotion of Indigenous Games and Sports**" scheme.
- **Kalaripayattu Federation of India:** The federation organizes national championships and collaborates with international martial arts organizations to promote the art form.
- **Cultural Revival:** Post-Indian independence, Kalaripayattu has seen a resurgence, particularly in Kerala, Tamil Nadu, and Karnataka. It has also found its way into the Indian film industry, particularly in stunt choreography and action sequences.

Recent Updates:



- In **2021**, Kalaripayattu was included in the **Khelo India Youth Games**, a significant move for the recognition of indigenous sports.
- **Global Influence:** In recent years, Kalaripayattu has gained popularity worldwide, with schools teaching this ancient art in countries like the U.S., U.K., and Japan.

IAS

Drone targets Netanyahu's house; Israeli strikes kill 50 in Gaza

PCS

Associated Press
JERUSALEM

The Israeli government said a drone targeted the Prime Minister's house on Saturday, though there were no casualties, as Iran's Supreme Leader vowed Hamas would continue its fight following the killing of the mastermind of last year's deadly October 7 attack.

Sirens wailed in Israel warning of incoming fire from Lebanon. The military said dozens of projectiles were launched. Israeli Prime Minister Benjamin Netanyahu's office said the drone targeted his house in

the Mediterranean coastal town of Caesarea, though neither he nor his wife were home.

The barrage comes as Israel considers its expected response to an Iranian attack earlier this month and presses its offensives against Hamas militants in Gaza and Hezbollah in Lebanon.

In September, Yemen's Houthi rebels launched a ballistic missile toward Ben Gurion Airport when Mr. Netanyahu's plane was landing. The missile was intercepted.

In the northern city of Kiryat Ata, sirens blared as people ran for cover and



Swift response: Israeli security forces cordon off a road near Benjamin Netanyahu's house in Caesarea in Israel on Saturday. AP

intercepted missiles exploded in the sky. One rocket landed in the area, and presspersons reported seeing burned cars and a

damaged building. Itzik Billet, commander for the Haifa area, said nine people were lightly injured.

The Israeli fire service

also said it was battling several blazes resulting from missiles in the Shlomi area.

Israel's war with Lebanon's Hezbollah has intensified in recent weeks. Hezbollah said on Friday that it planned to launch a new phase of fighting by sending more guided missiles and exploding drones into Israel.

Fresh warning

On Saturday, Israel's military issued fresh evacuation warnings for two buildings in Beirut's southern suburb of Haret Hriek. Israel has issued near-daily warnings for people to leave buildings and villages

across parts of Lebanon.

In Gaza, Israeli forces fired at hospitals in the battered northern part of the Palestinian enclave, and strikes in the strip killed more than 50 people, including children, in less than 24 hours.

A United Nations school sheltering displaced people in the west of Gaza City, was hit, killing several people. The strikes knocked out Internet networks in northern Gaza, said Paltel, the Palestinian communications company, on Facebook on Saturday.

BLAME ON HEZBOLLAH
» PAGE 12

Drone targets Netanyahu's house; Israeli strikes kill 50 in Gaza (20 October)

- The Israeli government reported that a drone targeted Prime Minister Netanyahu's house in Caesarea, but there were no casualties.
- Iran's Supreme Leader vowed that Hamas would continue its fight after the killing of the mastermind of the October 7 attack.
- Sirens sounded in Israel due to incoming fire from Lebanon, with dozens of projectiles launched.
- Netanyahu and his wife were not home at the time of the drone attack.





- Israel is considering its response to a recent Iranian attack and is intensifying offensives against Hamas in Gaza and Hezbollah in Lebanon.
- In September, Yemen's Houthi rebels launched a ballistic missile toward Ben Gurion Airport, which was intercepted.
- In Kiryat Ata, sirens blared as people sought shelter, and one rocket caused damage, resulting in nine lightly injured individuals.
- The Israeli fire service is battling multiple blazes caused by missiles in the Shlomi area.
- Hezbollah announced plans to escalate fighting by launching more guided missiles and exploding drones into Israel.
- Israel's military issued new evacuation warnings for two buildings in Beirut's Haret Hriek suburb.
- Israel has been issuing near-daily warnings for evacuations in various parts of Lebanon.
- In Gaza, Israeli forces fired at hospitals in the northern region, resulting in over 50 deaths, including children, within 24 hours.
- A United Nations school in Gaza City, sheltering displaced people, was struck, causing several casualties.
- Internet networks in northern Gaza were knocked out following the strikes, as reported by the Palestinian communications company Paltel

Man mauled to death in tiger attack in M.P.'s Seoni (20 October)

- A 22-year-old man, Aditya Chavre, died in a tiger attack in Seoni district, Madhya Pradesh.
- The incident occurred around 8:30 a.m. in Chhikhli village near PENCH Tiger Reserve.
- Aditya and his cousin, Avinash Chavre, were attacked while grazing their cattle.
- Avinash managed to escape, but Aditya was killed by the tiger.
- The forest department has provided financial assistance of ₹8 lakh to the victim's family.

Project Tiger and Tiger Reserves

- **Project Tiger** is a wildlife conservation initiative launched by the Government of India in 1973 to protect the declining population of tigers in the country.
- The project aims to create a viable population of wild tigers in their natural habitat and ensure their conservation, along with the ecosystems they inhabit.

Historical Background:





- **Inception:** Project Tiger was initiated on April 1, 1973, by then Prime Minister **Indira Gandhi** in response to the alarming decline in tiger numbers due to poaching, habitat loss, and human encroachment.
- **First Tiger Reserve:** The first tiger reserve established under this project was **Jim Corbett National Park** in Uttarakhand.

Objectives:

1. **Population Viability:** To ensure a viable population of tigers in the wild by safeguarding their habitats.
2. **Biodiversity Conservation:** To protect not only tigers but also the diverse flora and fauna within their ecosystems.
3. **Community Participation:** To involve local communities in conservation efforts and promote eco-friendly practices.

Tiger Reserves in India:

- **Total Reserves:** As of now, there are **53 tiger reserves** across India, covering approximately **75,000 square kilometers**. Some notable reserves include:
 - **Sundarbans Tiger Reserve** (West Bengal)
 - **Bandhavgarh National Park** (Madhya Pradesh)
 - **Ranthambore National Park** (Rajasthan)
 - **Kaziranga National Park** (Assam)

Significance of Tiger Reserves:

- **Habitat Protection:** Tiger reserves serve as critical habitats for tigers and other wildlife species, contributing to biodiversity conservation.
- **Eco-tourism:** Many reserves promote eco-tourism, which helps generate revenue for local communities and conservation efforts.
- **Research and Education:** These areas serve as important sites for wildlife research and education, helping raise awareness about conservation.

Recent Updates:

- **Tiger Census 2022:** The latest All India Tiger Estimation reported a significant increase in tiger numbers, with the population rising to **2,967** in 2018 and continuing to show positive trends.
- **Conservation Success:** The project has successfully expanded the habitat for tigers, with several states reporting successful translocations and breeding programs.
- **Government Initiatives:** The government has implemented various initiatives to combat poaching and habitat degradation, including improved surveillance technology and community engagement programs.

Key Data and Facts:

- **Tiger Population:** India houses around **70%** of the world's tiger population.
- **Protection Laws:** The Wildlife Protection Act of 1972 provides legal protection to tigers and their habitats.
- **International Collaboration:** India collaborates with various international organizations for tiger conservation, such as the Global Tiger Initiative.



Pench Tiger Reserve

- **Pench Tiger Reserve** is located in the central Indian states of **Madhya Pradesh** and **Maharashtra**.
- It is named after the Pench River, which flows through the area, and is renowned for its diverse flora and fauna, especially its population of Bengal tigers.

Historical Background:

- **Establishment:** Pench was initially declared a sanctuary in **1977** and later upgraded to a national park in **1983**. In **1993**, it was designated a tiger reserve under Project Tiger.
- **Project Tiger:** Launched in **1973**, this initiative aimed to conserve the diminishing population of tigers in India and their habitats. Pench was among the first reserves included in this project.

Important Dates:

- **1977:** Declared as a sanctuary.
- **1983:** Upgraded to a national park.
- **1993:** Designated as a tiger reserve under Project Tiger.

Geographical Features:

- **Location:** The reserve is situated in the **Seoni district** of Madhya Pradesh and extends into the **Chandrapur district** of Maharashtra.
- **Area:** It covers approximately **758 square kilometers** (core area of **257 km²** and buffer area of **501 km²**).
- **Terrain:** The landscape features mixed deciduous forests, open grasslands, and riverine ecosystems. The Pench River and its tributaries create vital water sources for the wildlife.

55 TIGER RESERVES OF INDIA





Flora and Fauna:

- **Biodiversity:** The reserve is home to over **250 species of birds**, **30 species of mammals**, and various reptiles. Notable species include the Bengal tiger, leopards, Indian jackals, spotted deer, and wild boars.
- **Vegetation:** Dominant flora includes teak, mahua, and various other hardwood trees, with a rich undergrowth of shrubs and grasses.

Conservation Efforts:

- **Wildlife Protection:** Pench Tiger Reserve has implemented effective management strategies for wildlife conservation, including anti-poaching measures and habitat management.
- **Community Involvement:** Initiatives have been introduced to involve local communities in conservation efforts and eco-tourism.

Recent Updates:

- **Tiger Population Monitoring:** The latest census conducted in **2022** reported an increase in the tiger population in Pench, highlighting successful conservation efforts.
- **Eco-tourism Development:** The Government of Madhya Pradesh has promoted eco-tourism to create awareness about wildlife conservation and to provide livelihood opportunities for local communities.
- **Infrastructural Improvements:** Initiatives to improve visitor facilities and create awareness programs about the significance of tiger conservation have been implemented.



L-G clears resolution urging Centre to restore Statehood

Omar Abdullah Cabinet passed unanimous resolution for the restoration of Statehood; the Chief Minister will be in New Delhi in coming days to meet PM, Union Ministers to pursue the demand

**GS Paper II: State
Legislature**
SRINAGAR

Jammu and Kashmir Lieutenant-Governor Manoj Sinha has cleared a resolution passed by the Omar Abdullah Cabinet urging the Centre to restore the Statehood to the Union Territory, officials said on Saturday.

The Cabinet, which met under the chairmanship of Mr. Abdullah, passed a unanimous resolution for restoration of Statehood in its original form, the government spokesperson said.

'Reclaiming rights'

The restoration of Statehood will be a beginning of a healing process, reclaiming the constitutional rights and protecting identity of people of Jammu and Kashmir, the official statement read.

The Cabinet has authorised the Chief Minister to take up the matter with the Prime Minister and Government of India for restoration of Statehood. Protection of Jammu and



Lieutenant-Governor Manoj Sinha greets J&K's Pro-tem Speaker Mubarak Gul after his oath ceremony on Saturday. PTI

Kashmir's unique identity and constitutional rights of the people remains the cornerstone of the newly elected government's policy.

The spokesperson said Mr. Abdullah would be proceeding to New Delhi in the coming days to meet the Prime Minister and Union Ministers in this regard.

The Cabinet also decided to summon the Legislative Assembly at Srinagar

on November 4 and advised the Lieutenant-Governor to summon and address the Assembly.

The draft address of the Lieutenant-Governor to the Legislative Assembly at the commencement of the first session was also placed before the Council of Ministers, which the Council decided shall be further considered and discussed, the spokesperson added.

Gul takes oath as Pro-tem Speaker

PCS
Press Trust of India
SRINAGAR

Six-time National Conference (NC) MLA Mubarak Gul took oath as the Pro-tem Speaker of the Jammu and Kashmir (J&K) Assembly in Srinagar on Saturday.

Mr. Gul was administered the oath of office by Lieutenant-Governor Manoj Sinha at a function held at the Raj Bhavan.

Mr. Gul, who won the Eidgah Assembly seat in Srinagar for the sixth time in the recent polls, was appointed the Pro-tem Speaker on Friday.

He will administer oath to the newly elected members of the Assembly at 2 p.m. on Monday. Mr. Gul served as Speaker of the Assembly of the erstwhile State of Jammu and Kashmir from 2013 to 2015.

L-G clears resolution urging Centre to restore Statehood (20 October)



Omar Abdullah Cabinet passed unanimous resolution for the restoration of Statehood; the Chief Minister will be in New Delhi in coming days to meet PM, Union Ministers to pursue the demand

- Jammu and Kashmir Lieutenant-Governor Manoj Sinha has cleared a resolution for restoring Statehood to the Union Territory.
- The resolution was passed unanimously by the Cabinet chaired by Omar Abdullah.
- The restoration of Statehood is seen as a healing process, reclaiming constitutional rights and protecting the identity of the people of Jammu and Kashmir.
- The Cabinet authorized the Chief Minister to discuss the matter with the Prime Minister and the Government of India.
- Protecting Jammu and Kashmir's unique identity and constitutional rights is a key focus of the newly elected government's policy.

Gul takes oath as Pro-tem Speaker

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He will administer oath to the newly elected members of the Assembly at 2 p.m. on Monday. Mr. Gul served as Speaker of the Assembly of the erstwhile State of Jammu and Kashmir from 2013 to 2015.

- Omar Abdullah plans to travel to New Delhi to meet with the Prime Minister and Union Ministers regarding the restoration of Statehood.
- The Cabinet decided to summon the Legislative Assembly in Srinagar on November 4 and advised the Lieutenant-Governor to address the Assembly.
- The draft address for the Lieutenant-Governor at the start of the Assembly session was presented to the Council of Ministers for further discussion.

Gul takes oath as Pro-tem Speaker (20 October)

- Mubarak Gul was sworn in as the Protem Speaker of the Jammu and Kashmir Assembly in Srinagar.
- The oath of office was administered by Lieutenant-Governor Manoj Sinha at Raj Bhavan.
- Mr. Gul won the Eidgah Assembly seat in Srinagar for the sixth time in recent polls.
- He was appointed Protem Speaker on Friday.
- Mr. Gul will administer the oath to newly elected Assembly members at 2 p.m. on Monday.
- He previously served as Speaker of the Assembly in the erstwhile State of Jammu and Kashmir from 2013 to 2015.

Gul takes oath as Pro-tem Speaker

- Mubarak Gul, a six-time MLA from the National Conference (NC), took oath as the Pro-tem Speaker of the Jammu and



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Protem Speaker

- As a convention, the **seniormost member** of the newly elected Lok sabha is asked to preside over the proceedings of the house for administering the oaths to newly elected members and to preside over the elections of the new speaker.
- **Article 99:** Every member of either House of Parliament shall, before taking his seat, make and subscribe before the President, or some person appointed in that behalf by him, an oath or affirmation according to the form set out for the purpose in the Third Schedule.
- **Article 188** for the State Legislature.

- **Who it applies to:** This article is relevant to all members of both Houses of Parliament, which includes the Lok Sabha (House of the People) and the Rajya Sabha (Council of States).

- **What they need to do:** Before an MP can take their seat and start working, they must make a formal promise, known as an oath or affirmation. This is a commitment to uphold the Constitution and perform their duties faithfully.

- **Who oversees the process:** The oath must be taken in front of the President of India or someone designated by the President. This could be a specific official assigned to witness the oath-taking.

- **Standardized format:** The form and wording of the oath are specified in the **Third Schedule** of the Constitution. This ensures that all MPs follow the same procedure and make the same commitment.





- President Droupadi Murmu appoints **Bhartruhari Mahtab**, seven-term MP from Cuttack as Speaker Pro-tem for 18th Lok Sabha proceedings.

PATRIOTIC IAS



Question people only during 'earthly' hours, ED directs officials

GS Paper III:
Money Laundering

The Enforcement Directorate has issued a fresh circular directing its officials or investigating officers (IOs) not to question people called on summons at "unearthly" hours and not keep them waiting for hours at their office.

The technical circular was issued on October 11 after the Bombay High Court directed the federal agency to issue directives in this context as it took up the petition of a person who was summoned by the ED and "detained overnight and interrogated". The High Court found that the 64-year-old petitioner was summoned to the ED office for questioning and was kept waiting post midnight.

Recording of his statement, at unearthly hours, "definitely results in deprivation of a person's sleep, basic human right of an individual", it said. The court said it "disapproved" of such a practice by the agency, and directed it to issue a circular or directive to its IOs regarding the timing and recording of state-

Bombay High Court had directed ED to issue directives after a person who was 'detained overnight' filed a petition

ments of people following the issuance of summons under Section 50 of the Prevention of Money Laundering Act (PMLA).

ED issues circular

The ED subsequently informed the court it had issued a fresh technical circular on October 11. The circular said that the authorised officer or IO of the ED "shall be well prepared with copies of documents to be confronted as well as questionnaire to examine the person summoned at appointed date and time".

The circular added that considering the nature of offence, where a person can transfer or conceal the proceeds of crime or destroy digital evidence in a short time, the IO "shall endeavour to conclude the examination of the person summoned expeditiously, ideally on the same day or the following day".

Question people only during 'earthly' hours, ED directs officials (20 October)

- The Enforcement Directorate (ED) issued a circular instructing officials not to question people summoned at "unearthly" hours or keep them waiting for extended periods.
- This technical circular was issued on October 11 following a Bombay High Court directive.
- The court addressed a petition from a 64-year-old man who was summoned, detained overnight, and interrogated by the ED.
- The petitioner was reportedly kept waiting past midnight, affecting his sleep and basic human rights.
- The High Court disapproved of the ED's practices and directed it to issue guidelines regarding the timing and recording of statements.
- The ED informed the court about the issuance of the new circular on October 11.
- The circular mandates that the authorized officer or investigating officer should be well-prepared with necessary documents and a questionnaire for the summoned individual.
- It emphasizes that due to the nature of the offenses, the investigating officer should aim to conclude examinations promptly, ideally on the same day or the following day.



Enforcement Directorate (ED)

- The **Enforcement Directorate (ED)** is a specialized financial law enforcement agency and economic intelligence agency of the Government of India.
- It operates under the Department of Revenue in the Ministry of Finance.

The ED is responsible for enforcing two key laws:

1. **Foreign Exchange Management Act (FEMA), 1999:** This regulates foreign exchange transactions and promotes the orderly development and maintenance of the foreign exchange market in India.
2. **Prevention of Money Laundering Act (PMLA), 2002:** This aims to prevent money laundering and to confiscate property derived from money laundering.

Historical Background

- The ED was established in **1956** as a part of the Ministry of Finance to combat violations of the Foreign Exchange Regulation Act (FERA).
- It was empowered under PMLA in **2002**, allowing it to investigate offenses of money laundering and to prosecute offenders.
- The agency has gained prominence for investigating high-profile cases, including those related to money laundering, tax evasion, and foreign exchange violations.

Functions and Powers

- **Investigation:** The ED has the authority to investigate and prosecute individuals and entities involved in money laundering and foreign exchange violations.
- **Arrests and Searches:** The agency can arrest individuals, seize property, and conduct searches of premises believed to hold incriminating evidence.
- **Prosecution:** After investigation, the ED can file a complaint in the Special PMLA Court.

Recent Updates

- The ED has been actively investigating various high-profile cases, including those involving political leaders, celebrities, and corporate entities. For example, it has recently pursued cases linked to alleged money laundering in the **BJP vs. AAP** political conflict.
- In **2023**, the ED intensified its efforts to curb financial crimes, focusing on sectors like banking and cryptocurrency, adapting to new methods of financial fraud.
- The agency's operations have been bolstered by increasing collaboration with international agencies, such as the **FATF** (Financial Action Task Force) and **Interpol**, to combat cross-border money laundering.

Important Data and Facts

- The ED operates across India with several regional offices.
- It has been involved in significant seizures of assets and properties worth thousands of crores related to various cases of money laundering.



- The agency's legal framework is derived from various acts, including the **Indian Penal Code (IPC)** and the **Criminal Procedure Code (CrPC)**.

Wanted by FBI, Vikash Yadav was arrested by Delhi Police in kidnap case, released on bail

The Hindu Bureau

NEW DELHI

Vikash Yadav – the former Indian government official charged by U.S. authorities for his alleged role in a foiled plot to murder Sikh separatist **Gurpatwant Singh Pannun on American soil** – was arrested by the Delhi Police Special Cell in December 2023 in an **unrelated kidnapping and extortion case**. He was granted interim bail by a Delhi court in March 2024, and regular bail a month later.

Mr. Yadav was granted interim bail on the grounds that his one-year-old daughter was under treatment for an acute respiratory infection.

Citing Mr. Yadav's bail application, the court said he was an "ex-government employee and [had] clean antecedents".

In its interim bail order, the court noted that the authenticity of the medical documents regarding his daughter's illness had been duly verified and confirmed, and the investigation was complete and the chargesheet filed.

Kidnap and extortion

Mr. Yadav was arrested on December 18, 2023 for allegedly kidnapping a businessman living in Delhi's Rohini area and demanding money in the name of jailed gangster Lawrence Bishnoi. Along with another man named Abdullah,



Vikash Yadav

Mr. Yadav allegedly pushed the victim into a car and demanded money, forcing him to sign a blank cheque before dropping him near his car. They also threatened him against telling anybody about the incident, the FIR said. The bail

Former government employee has been charged by the U.S. for alleged role in plot to kill Pannun

order said there was no apprehension of threat to any witness in the case.

Mr. Yadav was granted interim bail for six days, till March 28, and was asked to furnish a bail bond of ₹30,000 with a surety of a like amount. His bail was subject to several conditions: not to tamper with evidence, not to leave the National Capital Territory of Delhi, and to give the investigating officer a cell-phone number that would be kept active and

switched on at all times.

"On completion of the period of interim bail, Vikash Yadav shall surrender before the jail superintendent," the bail order said. According to the Press Trust of India, the court granted regular bail to Mr. Yadav on April 22.

Yadav was arrested under Sections 364A (kidnapping for ransom), 307 (attempted murder) 328 (causing harm to another person using poison), 506 (criminal intimidation), 323 (voluntarily causing hurt), 341 (wrongful restraint), 392 (robbery), 411 (dishonestly receiving stolen property), and 120 B (criminal conspiracy) of the IPC.

(With PTI inputs)

Wanted by FBI, Vikash Yadav was arrested by Delhi Police in kidnap case, released on bail (20 October)

- Vikash Yadav, a former Indian government official, was charged by U.S. authorities for his alleged involvement in a plot to murder Sikh separatist Gurpatwant Singh Pannun in the U.S.





- He was arrested by the Delhi Police Special Cell in December 2023 in an unrelated kidnapping and extortion case.
- Yadav was granted interim bail by a Delhi court in March 2024 and regular bail a month later.
- The interim bail was granted due to his one-year-old daughter receiving treatment for an acute respiratory infection.
- The court noted Yadav's clean antecedents as an ex-government employee in its bail application.
- The authenticity of the medical documents regarding his daughter's illness was verified and confirmed.
- Yadav was arrested on December 18, 2023, for allegedly kidnapping a businessman in Delhi's Rohini area and demanding ransom.
- He and an accomplice, Abdullah, reportedly forced the victim to sign a blank cheque and threatened him against reporting the incident.
- The bail order indicated no threat to witnesses in the case.
- Yadav's interim bail was for six days, until March 28, requiring a bail bond of ₹30,000 and adherence to several conditions, including not tampering with evidence and staying in Delhi.
- After the interim period, he was ordered to surrender to the jail superintendent.
- Regular bail was granted to Yadav on April 22, according to the Press Trust of India.



- He faced charges under various sections of the IPC, including kidnapping for ransom, attempted murder, and criminal conspiracy, among others.

Jharkhand 'gangster' with 160 cases plans to contest elections

Shubhomoy Sikdar

RAIPUR

A gangster from Jharkhand lodged in a Raipur jail - whose name, according to his own lawyer, features in nearly 160 criminal cases - is planning to contest the upcoming Jharkhand Assembly elections.

Twenty-six-year-old Aman Sao - who hails from Matbe village in Ranchi and is known to extort money from and attack those running mining businesses in mineral-rich areas according to police dossiers - is planning to contest election from the Barkagaon Assembly constituency that goes to the polls on November 13. His lawyer, Hemant Shikarwar, who had come to attend a court proceeding in Raipur, said his client will file a writ petition in the Bilaspur High Court seeking

Raipur.

He wants to contest the Assembly election from the Barkagaon Assembly constituency

permission to be taken to Jharkhand for filing nomination papers.

"At present, Aman is in Chhattisgarh. We will have to seek permission from courts in both Jharkhand and Chhattisgarh to make his nomination possible," Mr. Shikarwar said. His client meanwhile was produced before a court that sent him on judicial remand till October 28.

The court production was following his custodial interrogation in connection with a case registered against him at the Ganj police station in Raipur, one of the two cases lodged against him here.

Jharkhand 'gangster' with 160 cases plans to contest elections (20 October)

- A gangster from Jharkhand, Aman Sao, currently lodged in a Raipur jail, plans to contest the upcoming Jharkhand Assembly elections.
- Sao is 26 years old and hails from Matbe village in Ranchi.
- He is known for extorting money from and attacking individuals involved in mining businesses in mineral-rich areas, according to police dossiers.
- He intends to contest from the Barkagaon Assembly constituency, which goes to the polls on November 13.
- His lawyer, Hemant Shikarwar, stated that they will file a writ petition in the Bilaspur High Court to seek permission for Sao to travel to Jharkhand to file nomination papers.
- Shikarwar mentioned that permission will need to be sought from courts in both Jharkhand and Chhattisgarh for the nomination process.
- Sao was produced before a court following custodial interrogation in connection with a case registered against him at the Ganj police station in



- He has nearly 160 criminal cases against him, according to his own lawyer.
- The court has sent him on judicial remand until October 28.

India to seek certification from WHO for eliminating Kala-azar

The infection, reported mostly from Bihar, Jharkhand, West Bengal, and parts of U.P., is caused by a protozoan parasite transmitted by the bite of an infected female sandfly; symptoms include irregular fever, weight loss, and anaemia

GS Paper III: Basic Science

Bindu Shajan Perappadan
NEW DELHI

India could be at the threshold of eliminating Kala-azar as a public health problem with the country having managed to keep the number of cases under one in 10,000 people for two consecutive years now as required by World Health Organization (WHO) parameters for elimination certification.

Kala-azar, also known as visceral leishmaniasis, is the second deadliest parasitic disease after malaria in India. Figures released by the Health Ministry show that India registered 595 cases and four deaths in 2023 and this year, it has recorded 339 cases and one death so far.

If it can maintain the declining trend for another year, India will become eligible to seek the elimination certificate from the WHO, making it the second country in the world after Bangladesh which in October became the only country to have eliminated Kala-azar as a public health problem. The WHO validated this status after Bangladesh reported fewer than one case per 10,000 people in each of its sub-districts for three consecutive years.

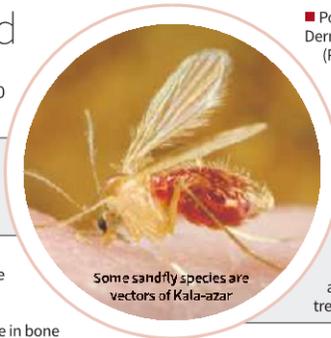
At the threshold

India has managed to keep the number of cases under one in 10,000 for two consecutive years now

■ Kala-azar is a slow progressing indigenous disease caused by a protozoan parasite of genus *Leishmania*

■ In India, *Leishmania donovani* is the only parasite causing this disease

■ The parasite primarily infects the reticuloendothelial system and may be found in abundance in bone marrow, spleen and liver



Some sandfly species are vectors of Kala-azar

Source: Health Ministry, National Centre for Vector-Borne Diseases Control

■ Post Kala-azar Dermal Leishmaniasis (PKDL) is a condition when *Leishmania donovani* invades skin cells, resides and develops there and manifests as dermal lesions

■ Some of the Kala-azar cases manifests PKDL after a few years of treatment

Kala-azar is a disease caused by a protozoa parasite that is transmitted by the bite of an infected female sandfly.

Symptoms of the disease include irregular fevers, weight loss, enlarged spleen and liver, and anaemia. Kala-azar is fatal if left untreated in more than 95% of cases.

India's National Health Policy (2002) initially set a target of eliminating Kala-azar by 2010, but this was later revised to 2015, 2017, and then 2020. The WHO's Neglected Tropical Disease road map set a goal of eliminating Kala-azar by 2020, but the target was not achieved.

The WHO is now accelerating work to achieve the target by 2030.

A disease is certified as eliminated as a public health issue when a country can prove that local transmission has been interrupted for a set period, and that there is a system to prevent the disease from re-emerging. The WHO assesses countries' submissions to determine if they meet the criteria for elimination.

K. Madan Gopal, adviser at the public health administration, National Health Systems Resource Centre, Health Ministry, said India's Kala-azar programme focuses on active case detection, effective vector control, and raising community awareness. Achieving a low case of Kala-azar to less than one case per 10,000 population at the

sub-district (block PHCs) for two straight years puts India on track to earn WHO certification for eliminating Kala-azar as a public health problem. This will mark a significant milestone.

Vulnerable States

Bihar, Jharkhand, West Bengal, and parts of Uttar Pradesh have seen the highest number of Kala-azar cases, with Bihar alone accounting for over 70% of India's cases. These areas offer ideal sandfly breeding conditions due to poor sanitation and climate factors.

Despite this, these regions have made huge progress in recent years by increasing awareness, controlling vectors, and

Health Ministry had adopted strategies such as early diagnosis, complete case management

ensuring quick diagnosis and treatment. "India is moving closer to Kala-azar elimination. It's also important to address the root causes, like poverty and inadequate sanitation, that allow diseases like Kala-azar to spread," Dr. Gopal said while cautioning that India must keep improving surveillance, expanding access to rapid diagnostic tools, and making treatments readily available to sustain these gains.

He added that for a long-term solution, India should focus on better vector control, address social and economic conditions, and invest in research for vaccines and new treatments.

The Health Ministry had adopted strategies such as early diagnosis and complete case management, integrated vector management and vector surveillance, supervision, monitoring, surveillance, evaluation, and advocacy, communication and social mobilisation for behavioural impact and inter-sectoral convergence.

India to seek certification from WHO for eliminating Kala-azar (20 October)





The infection, reported mostly from Bihar, Jharkhand, West Bengal, and parts of U.P., is caused by a protozoan parasite transmitted by the bite of an infected female sandfly; symptoms include irregular fever, weight loss, and anemia

- India is on the verge of eliminating Kala-azar as a public health problem, maintaining cases under one in 10,000 people for two consecutive years, meeting WHO elimination certification requirements.
- Kala-azar, or visceral leishmaniasis, is the second deadliest parasitic disease in India after malaria.
- In 2023, India registered 595 cases and four deaths; so far in 2024, there have been 339 cases and one death.
- If the declining trend continues for another year, India can seek elimination certification from the WHO, potentially becoming the second country to do so after Bangladesh.
- Bangladesh was validated by the WHO as having eliminated Kala-azar after reporting fewer than one case per 10,000 people for three consecutive years.
- Kala-azar is caused by a protozoa parasite transmitted by the bite of an infected female sandfly.
- Symptoms include irregular fevers, weight loss, enlarged spleen and liver, and anemia; untreated, it is fatal in more than 95% of cases.
- India's National Health Policy initially targeted elimination of Kala-azar by 2010, later revised to 2015, 2017, and 2020.
- The WHO's Neglected Tropical Disease roadmap aimed for elimination by 2020, but this target was not met.
- The WHO is now working to achieve the elimination target by 2030.
- A disease is certified as eliminated as a public health issue when local transmission has been interrupted for a set period and there is a system to prevent its re-emergence.
- The WHO assesses countries' submissions to determine if they meet the criteria for elimination.
- K. Madan Gopal, adviser at the National Health Systems Resource Centre, highlighted India's Kala-azar programme's focus on active case detection, effective vector control, and community awareness.
- Achieving fewer than one case of Kala-azar per 10,000 population at the sub-district level for two consecutive years positions India to earn WHO certification for eliminating Kala-azar as a public health problem, marking a significant milestone.
- Vulnerable states include Bihar, Jharkhand, West Bengal, and parts of Uttar Pradesh, with Bihar accounting for over 70% of India's cases.
- These regions have ideal breeding conditions for sandflies due to poor sanitation and climate factors.



- Despite challenges, these areas have made significant progress in raising awareness, controlling vectors, and ensuring quick diagnosis and treatment.
- Dr. Gopal emphasized the importance of addressing root causes such as poverty and inadequate sanitation to prevent the spread of Kala-azar.
- India must improve surveillance, expand access to rapid diagnostic tools, and ensure treatments are readily available to sustain progress.
- For a long-term solution, the focus should be on better vector control, addressing social and economic conditions, and investing in research for vaccines and new treatments.
- The Health Ministry's strategies include early diagnosis and complete case management, integrated vector management, vector surveillance, monitoring, evaluation, advocacy, communication, and social mobilization for behavioral impact and inter-sectoral convergence.

Kala-azar: Detailed Explanation

Overview:

Kala-azar, also known as **Visceral Leishmaniasis (VL)**, is a **vector-borne disease** caused by the parasite *Leishmania donovani*. It is transmitted to humans through the bite of infected female **Phlebotomine sandflies**. The disease primarily affects the **spleen, liver, and bone marrow**, leading to a range of symptoms, including fever, weight loss, enlargement of the spleen and liver (splenomegaly and hepatomegaly), and anemia.

Historical Background:

- Kala-azar has been recognized in the Indian subcontinent for over a century.
- The first recorded cases date back to the **early 19th century** in **Bengal (now Bangladesh and West Bengal, India)**.
- It became a major public health issue in the **20th century**, especially in **Bihar**, which remains one of the worst-affected regions in India.

Disease Prevalence:

- India accounts for over **50% of the global Kala-azar cases**.
- Endemic areas include **Bihar, Jharkhand, West Bengal, and Uttar Pradesh**. The majority of cases are reported from **Bihar**, contributing to around **80% of India's total cases**.
- Kala-azar primarily affects people living in **poor socio-economic conditions**, where healthcare access is limited.

Symptoms:

1. Prolonged **fever** lasting over two weeks.
2. **Weight loss** and weakness.
3. Enlargement of the **spleen** and **liver** (splenomegaly and hepatomegaly).
4. **Anemia** due to the suppression of the bone marrow.



Causes and Transmission:

- The disease is caused by the **Leishmania donovani** parasite, which is transmitted through the bite of infected **female sandflies**.
- The sandflies breed in **dark, humid environments** such as mud walls, cattle sheds, and cracks in houses.

Diagnosis:

- Diagnosis involves **serological tests, bone marrow aspiration**, and detection of **Leishmania parasites** in blood smears.
- The **rK39 antigen-based rapid diagnostic test (RDT)** is commonly used for diagnosis in endemic regions.

Treatment:

- Treatment typically involves **anti-leishmanial drugs** such as:
 1. **Miltefosine**: The first oral drug for VL.
 2. **Liposomal Amphotericin B**: The WHO recommends this drug as the first-line treatment.
 3. **Paromomycin**: Used in combination therapies.
- Early detection and treatment are crucial for preventing mortality.

Government Initiatives and Eradication Efforts:

The Government of India has been working on a **Kala-azar elimination program** as part of its **National Vector Borne Disease Control Programme (NVBDCP)**. The **target** was to eliminate Kala-azar as a public health problem by reducing the annual incidence to less than **1 case per 10,000 population** at the sub-district level.

1. **Kala-azar Elimination Program**: Launched in 2005 under the **National Health Mission (NHM)**. This program focused on early diagnosis, prompt treatment, vector control, and community awareness.
2. **Ambitious Targets**: In 2023, India was on track to achieve the **elimination target**, though challenges remain in certain pockets of endemic regions.
3. **State Government Collaboration**: Particularly in states like **Bihar**, the government has implemented robust surveillance systems, vector control measures, and community awareness programs to combat the disease.

Recent Updates:

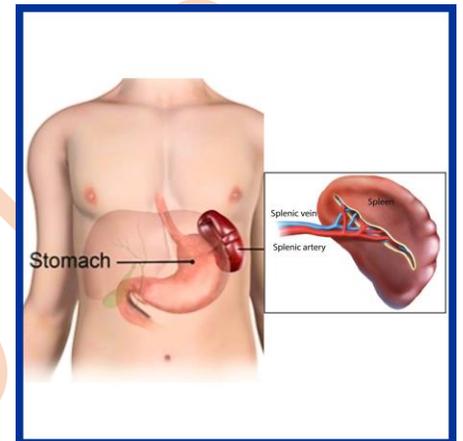
- **Bihar's Progress**: By **2023, Bihar**—which was the epicenter of Kala-azar—saw a **significant reduction** in cases, moving closer to elimination targets, according to reports by the **Ministry of Health and Family Welfare** and the **World Health Organization (WHO)**.
- **Innovative Strategies**: The **World Health Organization (WHO)** and the **Bill & Melinda Gates Foundation** have supported innovative approaches such as:
 - The use of **bed nets** treated with long-lasting insecticides to reduce sandfly bites.
 - Ongoing **clinical trials** for new, more effective treatments and vaccines.

Facts and Data:

- **Global burden**: India accounts for over **50% of global Kala-azar cases**.



- **Most affected states in India: Bihar, Jharkhand, West Bengal, and Uttar Pradesh.**
- **Treatment success rate:** Over **95%** of patients are successfully treated with timely intervention.
- **Goal of Elimination:** Less than **1 case per 10,000 population** by **2023-2024.**



Spleen

- The spleen is an organ found in almost all vertebrate animals.
- It mainly acts as a filter for purifying the blood, removing microbes and worn out or damaged red blood cells.
- It is also an important organ in the immune system, producing the white blood cells that fight infection and synthesize antibodies.





Vijaya Kishore Rahatkar

Vijaya Kishore Rahatkar to be new NCW chairperson

GS Paper II: Polity
Press Trust of India
NEW DELHI

Vijaya Kishore Rahatkar has been appointed the ninth Chairperson of the National Commission for Women (NCW), succeeding Rekha Sharma, an official order said.

The appointment made under Section 3 of the National Commission for Women Act, 1990, will be for a period of three years or until she reaches the age of 65, whichever comes first, a government notification issued on Saturday said. Ms. Rahatkar's tenure will begin with immediate effect.

Vijaya Kishore Rahatkar to be new NCW chairperson (20 October)

- Vijaya Kishore Rahatkar has been appointed as the ninth Chairperson of the National Commission for Women (NCW), succeeding Rekha Sharma.
- The appointment is made under Section 3 of the National Commission for Women Act, 1990.
- Rahatkar's tenure will last for three years or until she reaches the age of 65, whichever comes first.
- Her tenure begins with immediate effect.
- The announcement will be published in the Gazette of India.
- The NCW is a statutory body empowered to work towards the advancement of women's rights.
- Its mandate includes reviewing the constitutional and legal safeguards provided for women.

Company uses mining dust to enhance carbon capture

GS Paper III: Environment

Jacob Koshy
NEW DELHI

The last thing you would expect is that dust from mining would be climate-friendly. But the right kind of dust moved to the right place is the core business of a Darjeeling-based company, Alt Carbon, and has already garnered \$5,00,000 in investments for carbon-credit companies. At the heart of the company's approach is the geo-chemical process called rock weathering.

All rocks naturally break down into minerals over thousands of years. The consequence of this process is that atmospheric carbon reacts with these minerals (calcium and magnesium largely) and becomes bicarbonates. Eventually through aquif-



Alt Carbon collects crushed basalt from the Rajmahal mines and has them sprinkled on their tea estates. SPECIAL ARRANGEMENT

ers, or underground streams and rivers, they make their way into the oceans where the carbon is locked in for aeons.

The oceans, thus, are the major carbon sinks and capture about 30% of the CO₂ from human activities. Left to nature, this process takes aeons. However, with

the levels of carbon dioxide building up in the air and a consensus by the Intergovernmental Panel on Climate Change that some amount of carbon dioxide already present in the air needs to be removed by 2050, for keeping temperatures from exceeding 2 degree Celsius by the end of

the century, governments as well as businesses are experimenting and investing in schemes to accelerate natural carbon removal processes. This is where 'enhanced' rock weathering comes in.

Basaltic rock, a kind of volcanic rock, is rich in minerals such as calcium and magnesium. Many parts of Maharashtra and Gujarat, where the volcanic Deccan Traps are located, are rich in such basaltic rock as parts of Jharkhand and West Bengal where the Rajmahal Traps are situated.

"Once such basaltic rock is crushed into a fine powder, its effective surface area is greatly increased. This accelerates the formation of bicarbonate anywhere from tenfold to a hundred-fold and

can be flushed into the ocean - depending on the soil, temperature and rivers - within a month," said Sambuddha Misra, Associate Professor and expert in chemical oceanography, at the Indian Institute of Science, Bengaluru. He is also the chief scientist at Alt Carbon. The company, which derives from a family-owned tea-garden industry, collects tonnes of crushed basalt from the Rajmahal mines, transports it about 200 kilometres to Darjeeling and has them sprinkled on tea estates in the region.

Being an organic fertilizer, the basaltic dust enriches the soil as well as accelerates carbon sequestration. So far, the company has used about 500 tonnes of dust. Though still early years, it

takes about 3-4 tonnes of basalt dust to sequester, or trap, a tonne of atmospheric carbon over two to four years. "Normally it would have taken 1,000 years for natural basaltic rock to capture that much carbon," said Shrey Agrawal, CEO and co-founder, Alt Carbon. This September, the company entered into an agreement with Frontier, a consortium of McKinsey Sustainability, Alphabet, Meta, Shopify and Stripe, to buy a tranche of carbon sequestered this way in advance for \$5,00,000. Carbon credits generated this way are bought by companies and they can use it to offset their carbon emissions, required under their national laws. Currently though, such purchases are largely voluntary.



Company uses mining dust to enhance carbon capture (20 October)

- Alt Carbon, a Darjeeling-based company, focuses on using mining dust for climate-friendly purposes.
- The company has garnered \$500,000 in investments for carbon-credit initiatives.
- Their approach is based on a geo-chemical process called rock weathering.
- Natural rock weathering takes thousands of years, breaking down rocks into minerals that react with atmospheric carbon.
- This process converts carbon into bicarbonates, which eventually make their way to oceans, acting as major carbon sinks.
- To combat rising CO₂ levels, there is a need to accelerate natural carbon removal processes.
- Enhanced rock weathering, using basaltic rock rich in calcium and magnesium, is one such method.
- Basalt is found in areas like Maharashtra, Gujarat, Jharkhand, and West Bengal.
- Crushing basalt into a fine powder increases its effective surface area, accelerating bicarbonate formation significantly.
- Alt Carbon collects crushed basalt from Rajmahal mines and transports it to Darjeeling for use on tea estates.
- The basaltic dust acts as an organic fertilizer and helps in carbon sequestration.
- The company has used about 500 tonnes of basalt dust to date.
- Approximately 3-4 tonnes of basalt dust can sequester a tonne of atmospheric carbon within two to four years.
- Normally, it would take 1,000 years for natural basalt to capture the same amount of carbon.
- In September, Alt Carbon signed an agreement with Frontier (a consortium including McKinsey Sustainability and others) to sell carbon credits for \$500,000.
- Carbon credits generated can be purchased by companies to offset their carbon emissions, mainly on a voluntary basis.



Local produce, global clientele

The Xinjiang International Grand Bazaar in Urumqi evokes the ancient Silk Road by catering to a global clientele and offering an enticing basket of products

GS Paper I: World geography

The Xinjiang International Grand Bazaar in Urumqi is exceptional both in the variety of the items on sale and the number of foreign tourists it attracts. While open all day, it essentially is a night bazaar, coming to full life from about 6.30 p.m., and offering everything from food and clothes to art and artefacts. Different cultural and economic aspects of the province, which is home to 56 officially recognised ethnic groups with Uyghurs, Han Chinese, Kazakhs, Uzbeks, and Mongolians among them, permeate the structures of the square and the products on display. The bazaar recalls the dominant Islamic culture of the region through the architecture, and the network of commercial routes of the Silk Road. There is a mosque that stands as the centrepiece of the area, and a Silk Road Sightseeing Tower that provides a panoramic view of the city and the mountains of the region. Paintings on each floor of the tower depict the history of the Silk Road, the trade and cultural exchanges across Eurasia for over 500 years till the 15th century. Xinjiang's famed dried fruits and jams and honeys are among the essential buys for tourists. Ethnic musical instruments, including hand-painted tambourines, are available across the walkways and shops. Uyghurs play the traditional instruments in front of the shops, an added attraction.

Opened in 2003, it is the largest bazaar of its kind in China, at about 3,000 shops.



Melting pot: Foreign tourists dancing on the bazaar premises.

Local produce, global clientele (20 October)

The Xinjiang International Grand Bazaar in Urumqi evokes the ancient Silk Road by catering to a global clientele and offering an enticing basket of products

- The Xinjiang International Grand Bazaar in Urumqi is notable for its variety of items and the influx of foreign tourists.
- While open all day, it functions primarily as a night bazaar, vibrant from around 6:30 p.m.
- The bazaar offers a wide range of products, including food, clothes, art, and artifacts.
- It reflects the diverse cultural and economic aspects of Xinjiang, home to 56 officially recognized ethnic groups, including Uyghurs, Han Chinese, Kazakhs, Uzbeks, and Mongolians.
- The architecture showcases the region's dominant Islamic culture and the historic Silk Road commercial routes.
- A mosque serves as the centerpiece of the bazaar, alongside a Silk Road Sightseeing Tower providing panoramic views of the city and mountains.
- The tower features paintings depicting the history of the Silk Road and cultural exchanges over 500 years until the 15th century.
- Tourists are encouraged to buy Xinjiang's famous dried fruits, jams, and honeys.
- Ethnic musical instruments, such as hand-painted tambourines, are available throughout the bazaar.





- Uyghur musicians perform traditional music in front of the shops, enhancing the experience.
- Opened in 2003, it is the largest bazaar of its kind in China, featuring about 3,000 shops.

Silk Road:

- The **Silk Road** was a network of ancient trade routes that connected the East and the West, facilitating the exchange of goods, culture, and ideas between the major civilizations of Asia, the Mediterranean, and Europe.
- It played a crucial role in shaping the history of many regions by fostering economic, cultural, and religious interactions.
- The name "Silk Road" (or Silk Routes) originates from the lucrative trade in **Chinese silk**, which was highly sought after in the West.

Historical Background:

- **Origins:** The Silk Road is believed to have been established during the **Han Dynasty of China** (206 BCE – 220 CE). Emperor Wu of Han was instrumental in initiating long-distance trade relations with Central Asia.
- **Extent:** The Silk Road spanned around **6,400 kilometers**, connecting the **East** (China, India, Persia) with the **West** (Rome, Greece, Egypt), passing through Central Asia, modern-day Iran, Turkey, and reaching the Mediterranean.
- **Key Goods:** The primary goods traded included **silk, spices, gold, silver, textiles, tea, and precious stones**. Additionally, ideas, religions (especially Buddhism), and technologies spread through these routes.

Cultural Exchange and Influence:

- The Silk Road was not just about the exchange of goods but also about the **intermingling of cultures**. It facilitated the spread of ideas, art, and religion across regions.
 - **Buddhism**, for instance, spread from India to China via the Silk Road.
 - **Islam** expanded through Central Asia and Persia, reaching far-flung regions through traders and travelers.
- Chinese technologies such as **paper-making** and **gunpowder** were introduced to the West through this route.

Decline and Modern Influence:

- The Silk Road began to decline with the rise of maritime trade routes in the **15th century** and the collapse of the Mongol Empire, which had earlier provided a unified control over the route.
- However, its legacy continues, especially in terms of cultural diffusion and historical connectivity.

Recent Updates: China's Belt and Road Initiative (BRI)

In modern times, China's **Belt and Road Initiative (BRI)**, often referred to as the **New Silk Road**, seeks to revive these ancient trade routes. Launched in **2013** by President **Xi Jinping**, the BRI aims to enhance





infrastructure connectivity and economic integration across Asia, Europe, and Africa. It focuses on building roads, railways, ports, and pipelines, mirroring the Silk Road's historical role in boosting trade and cultural ties.

- **Key Projects under BRI:**
 - **China-Pakistan Economic Corridor (CPEC).**
 - **Silk Road Economic Belt** (connecting China to Europe via Central Asia).
 - **21st Century Maritime Silk Road** (focusing on sea routes).
- **Concerns and Criticisms:**
 - The BRI has raised concerns over **debt dependency** for many participating countries.
 - Strategic concerns from countries like India, which has raised objections regarding sovereignty, especially with respect to **CPEC** passing through Pakistan-occupied Kashmir.

India's Perspective:

- India has historically been an important part of the Silk Road, with key trading cities like **Taxila** and **Bharuch** serving as major hubs.
- In modern times, India has opted out of the **Belt and Road Initiative** due to its concerns over sovereignty and geopolitical implications.
- India is instead focusing on strengthening trade ties through other initiatives like the **International North-South Transport Corridor (INSTC)**, which connects India with Central Asia, Russia, and Europe.

Facts and Data:

- **Length of the Silk Road:** Approximately **6,400 kilometers**.
- **Established:** During the **Han Dynasty (206 BCE)**.
- **Key Trading Goods:** Silk, spices, tea, gold, silver, horses, etc.
- **Major Regions Connected:** China, Central Asia, India, Persia, the Roman Empire, and the Mediterranean.
- **BRI Launched:** **2013** by China.
- **Key Indian Projects:** **INSTC** as an alternative to BRI.

Important Dates:

- **206 BCE – 220 CE:** The establishment of the Silk Road during the Han Dynasty.
- **13th-14th Century:** Peak period during the Mongol Empire under rulers like Genghis Khan.
- **15th Century:** Decline of the Silk Road with the rise of maritime trade routes.
- **2013:** Launch of China's Belt and Road Initiative (BRI).



What are the stress factors for Indian Railways?

Why has there been a spate of accidents across railway zones? Will 'Kavach' coverage and overhauling of signalling systems help? Is it earning enough from passenger and freight services to plough back profits for upgradation, maintenance and paying salaries?

**GS Paper III:
Indian Railways**

The story so far:

On October 17, eight coaches of the Agartala-Lokmanya Tilak Express derailed in Assam with no casualties. On October 11, a passenger train rear-ended a stationary goods train near Chennai, also with no casualties. Indian trains have been involved in multiple accidents of late. The **Balalore accident on June 2, 2023, had the greatest death toll, more than 275**, yet pressure on the Railways to improve safety competes with pressures straining its subsistence.

How common are accidents?

The number of railway accidents dropped from 1,390 per year in the 1960s to 80 per year in the last decade. There were still 34 consequential accidents in 2021-2022, 48 in 2022-23, and 40 in 2023-2024. A consequential accident injures and/or kills people, damages railway infrastructure, and disrupts rail traffic.

According to public records, 55.8% of all accidents involving trains have been due to the failure of Railway staff and another 28.4% due to failures on the part of non-staff people. Equipment failure accounted for 6.2%. In both the Balalore and the Kavaraipeetai accidents, officials blamed the signalling system.

What is 'Kavach'?

The 'Kavach' automatic train protection system is designed to prevent collisions using devices that allow pilots to track the relative location of their vehicles and which can actuate alarms and automated braking protocols.

By February 2024, the Railways had installed 'Kavach' on 1,465 route km, or 2% of its total route length. After the Balalore accident, Union

The Railways is caught between providing an affordable travelling option and being a profitable business

Railway Minister Ashwini Vaishnaw said 'Kavach' would be implemented in "mission mode". It costs ₹50 lakh per kilometre and ₹70 lakh per locomotive. An analysis by *The Hindu* found the all-inclusive cost of implementation over a decade to be **less than 2% of the Railways' annual capex**. When faced with criticism of the slow implementation, officials have deferred to declines in accident incidence and mortality over the years. But experts have said comparing current and past accident rates is misguided because advanced safety technologies didn't exist earlier and that the government has the means today to eliminate collisions.

Since 1990-1991, the Railways has classified nearly 70% of all major accidents as derailments, but only 2% of them were due to collisions. 'Kavach' also may not have prevented the Kavaraipeetai accident because the relevant error happened beyond the minimum margins 'Kavach' requires to assist.

What is the operating ratio?

The operating ratio (OR) – the amount the Railways spends to earn ₹100 – in 2024-2025 is estimated to be ₹98.2, a small improvement from 2023-2024 (₹98.7) but a decline from ₹97.8 in 2016. A higher OR leaves less for capex and the Railways more dependent on **budgetary support and Extra-Budgetary Resources (EBRs)**. In 2016-2017, the BJP government brought the railway budget under the regular budget after nine decades of separation. One outcome was easier access for the Railways to gross budgetary support. As for EBRs: the Railways' dues have ballooned to 17% of its revenue receipts today from 10% in 2015-2016.

How are freight services faring?

The Railways' two main internal revenue sources are **passenger services and freight**. The latter accounts for 65%. While revenue from both sources is increasing, freight rates increased more than thrice as fast as passenger rates in 2009-2019, NITI Aayog has estimated.

According to the draft National Rail Plan, nearly 30% of the railway network is utilised to more than 100% capacity. This has translated to **slow freight movement – around 26 km/hr in 2016 – and slower revenue growth**. Of the **Dedicated Freight Corridors (DFCs) the government mooted in 2005, only the eastern DFC is fully operational**. The western DFC is partly ready; the east coast, east-west sub-corridor, and north-south sub-corridor DFCs, amounting to 3,958 km, are still in planning. Freight revenue also depends on the freight basket. Coal accounted for half of the freight revenue and 45% of volume in the

2024-2025 budget estimate. However, the government has been adding more renewable energy sources while pushing industries to reduce their dependence on fossil fuels, including coal.

The Railways also needs to keep up existing equipment, including replacing tracks and wagons and maintaining trackside infrastructure. But in the 2023-2024 budget, capital outlay for track renewal dropped to 7.2%. Appropriations to the **Depreciation Reserve Fund** also fell 96% in the BJP's first term; the government had moved these resources to the **Rashtriya Rail Sanraksha Kosh safety fund created in 2017-2018**. The Standing Committee on Railways said then the latter wouldn't be able to pay to repair or replace depreciating assets.

What about passenger services' revenue?

The Railways' freight profit is offset significantly by passenger losses. In 2019-2020, the revenue from passenger services was a little over ₹50,000 crore and loss, ₹63,364 crore. In 2021-2022 – a pandemic year in which many trains had to be cancelled – passenger services incurred a **loss of ₹68,269 crore**. In a July 2024 analysis, PRL Legislative Research estimated the revenue from passenger services was ₹80,000 crore in 2024-2025.

PRL also estimated the Railways had a passenger traffic of 11 lakh passenger km, expected to increase to 12.4 lakh in 2024-2025 thanks to the addition of new trains – including the Vande Bharats – on high-traffic routes. The Railways has also replaced many of the more affordably ticketed sleeper and second-class coaches with the more expensive AC coaches, all to increase passenger revenue. However, it last rationalised passenger fares in 2020.

How is safety affected?

For a long time now, the Railways has been caught between two aspirations: providing an affordable travelling option to the Indian people versus being a profitable business.

The Railways' losses are compounded by growing wage and pension bills and fuel costs. Locomotive pilots have also reported stressful working conditions, including 12-hour shifts, especially in zones with large freight volumes, and shifting standard operating procedures.

The high network congestion is likewise exemplified by the limited utility of 'Kavach' as well as the failure of a homegrown system, based on walkie-talkies, to alert trackside workers to oncoming trains. "The system does not work fully ... where a number of trains ply in a single block section at close intervals and signals are placed 1 km apart," Mr. Vaishnaw told the Rajya Sabha in 2023. In sum, the Railways' **inability to generate revenue to plug gaps in the gross budgetary support, burgeoning demands on its revenue receipts, and growing pressure to ease congestion and improve physical capacity mean it's constantly playing catch-up.**



Accident prone: The Mysuru-Darbhanga Express rammed a goods train due to signal failure at Kavaraipeetai station on October 11. B. JOTHI RAMALINGAM

What are the stress factors for Indian Railways?

(20 October)

Why has there been a spate of accidents across railway zones? Will 'Kavach' coverage and overhauling of signaling systems help? Is it earning enough from



passenger and freight services to plough back profits for upgradation, maintenance and paying salaries?

- On October 17, eight coaches of the Agartala-Lokmanya Tilak Express derailed in Assam; there were no casualties.
- On October 11, a passenger train rear-ended a stationary goods train near Chennai, also with no casualties.
- Indian trains have experienced multiple accidents recently.
- The Balasore accident on June 2, 2023, resulted in over 275 deaths, highlighting the ongoing safety issues in the Railways.
- The number of railway accidents has decreased from 1,390 per year in the 1960s to 80 per year in the last decade.
- Consequential accidents (which injure or kill people and disrupt rail traffic) included 34 in 2021-2022, 48 in 2022-23, and 40 in 2023-2024.
- Public records indicate that 55.8% of train accidents are due to failures by Railway staff, while 28.4% are due to non-staff failures; equipment failure accounts for 6.2%.
- In both the Balasore and Kavaraipeetai accidents, officials attributed issues to the signalling system.
- The 'Kavach' automatic train protection system aims to prevent collisions by allowing pilots to track vehicle locations and implement alarms and automated braking.
- As of February 2024, 'Kavach' has been installed on 1,465 route km (2% of total route length).
- Following the Balasore accident, the Union Railway Minister stated that 'Kavach' would be implemented in "mission mode."
- The cost of implementing 'Kavach' is ₹50 lakh per kilometre and ₹70 lakh per locomotive.
- An analysis found that the overall implementation cost over a decade is less than 2% of the Railways' annual capital expenditure.
- Officials have cited declines in accident rates and mortality as a justification for slow 'Kavach' implementation, despite criticism.
- Experts argue that comparing current accident rates to past ones is misleading, as advanced safety technologies were not available earlier.
- Since 1990-1991, nearly 70% of major railway accidents have been classified as derailments, with only 2% due to collisions.
- The 'Kavach' system may not have prevented the Kavaraipeetai accident because the relevant error occurred beyond the minimum margins required for its assistance.

What is the operating ratio?

- The operating ratio (OR) for the Railways in 2024-2025 is estimated at ₹98.2, an improvement from ₹98.7 in 2023-2024 but a decline from ₹97.8 in 2016.





- A higher OR results in less available for capital expenditure (capex) and increases dependence on budgetary support and Extra-Budgetary Resources (EBRs).
- In 2016-2017, the BJP government integrated the railway budget into the regular budget, allowing easier access to gross budgetary support.
- The Railways' dues have increased to 17% of its revenue receipts, up from 10% in 2015-2016.
- Freight services account for 65% of the Railways' internal revenue sources, alongside passenger services.
- Revenue from freight has increased more than three times as fast as passenger rates between 2009 and 2019, according to NITI Aayog.
- Nearly 30% of the railway network operates at over 100% capacity, leading to slow freight movement (around 26 km/hr in 2016) and slower revenue growth.
- Of the Dedicated Freight Corridors (DFCs) proposed in 2005, only the eastern DFC is fully operational; the western DFC is partially ready, while several others remain in planning.
- Coal accounts for half of the freight revenue and 45% of the volume in the 2024-2025 budget estimate.
- The government is promoting renewable energy sources and encouraging industries to reduce reliance on fossil fuels, including coal.
- The Railways must maintain existing equipment, including track and wagon replacements, as well as trackside infrastructure.
- In the 2023-2024 budget, capital outlay for track renewal decreased to 7.2%.
- Appropriations to the Depreciation Reserve Fund fell 96% during the BJP's first term, with resources redirected to the Rashtriya Rail Sanraksha Kosh safety fund established in 2017-2018.
- The Standing Committee on Railways indicated that the safety fund would not adequately cover repairs or replacements of depreciating assets.

What about passenger services' revenue?

- The Railways' freight profit is significantly offset by passenger service losses.
- In 2019-2020, revenue from passenger services was over ₹50,000 crore, with losses amounting to ₹63,364 crore.
- In 2021-2022, during the pandemic, passenger services incurred a loss of ₹68,269 crore.
- A July 2024 analysis by PRL Legislative Research estimated passenger service revenue at ₹80,000 crore for 2024-2025.
- PRL also estimated a passenger traffic of 11 lakh passenger km, expected to increase to 12.4 lakh in 2024-2025 due to new trains like Vande Bharats on high-traffic routes.
- The Railways has replaced many affordably ticketed sleeper and second-class coaches with more expensive AC coaches to increase revenue.
- The last passenger fare rationalization occurred in 2020.





- The Railways faces the challenge of balancing affordable travel for the public with profitability.
- Losses are compounded by rising wage and pension bills and increasing fuel costs.
- Locomotive pilots report stressful working conditions, including 12-hour shifts, particularly in high freight zones.
- High network congestion limits the effectiveness of the 'Kavach' system and a homegrown walkie-talkie alert system for trackside workers.
- The alert system fails to work effectively where multiple trains operate closely in single block sections.
- The Railways struggles to generate sufficient revenue to address gaps in gross budgetary support and meet growing demands while easing congestion and improving capacity.

Did Google violate antitrust laws in Epic battle? (20 October)

Why has a U.S. judge ordered the tech giant to open up its Play Store to third-party apps? What happened when Epic's CEO Tim Sweeney took issue with Google's cut from every transaction made through Android devices? What happened to the lawsuit with Apple?

- On October 7, U.S. District Judge James Donato issued an injunction against Google, requiring it to open its Play Store to third-party apps.
- The ruling prohibits Google from making exclusive deals with app developers and phone manufacturers that require pre-installation of the Play Store.
- Google must now allow app developers to offer alternative payment options within their apps.
- Google has appealed the decision, expressing concerns about potential impacts on consumer privacy, security, and competition.



Did Google violate antitrust laws in Epic battle?

Why has a U.S. judge ordered the tech giant to open up its Play Store to third-party apps? What happened when Epic's CEO Tim Sweeney took issue with Google's cut from every transaction made through Android devices? What happened to the lawsuit with Apple?

GS Paper II: Global Governance

John Xavier

The story so far:

In October 7, U.S. District Judge James Donato issued an injunction against Alphabet-owned Google, ordering the tech giant to open up its Play Store to third-party apps. The ruling prohibits Google from cutting exclusive deals with app developers and phone manufacturers, requiring them to pre-install the Play Store on their devices. Furthermore, Google is now required to allow app developers to offer alternative payment options within their apps.

What has been Google's response?

Google has already appealed the decision, and in a company blog post, it expressed concerns that the ruling could undermine consumer privacy and security, make it more difficult for developers to promote their apps, and reduce competition on mobile devices. But the court's decision is seen by many as a crucial turning point in the ongoing battle between developers and app store operators over market control.

What's the background to this injunction?

Legal tensions between app developers and major app store operators like Google and Apple have been escalating for several years. A major

The implications of these rulings, especially the injunction against Google, could be profound for the app economy

flashpoint came in August 2020, when Tencent-backed Epic Games – the maker of Fortnite – introduced a direct payment option in its app, bypassing both Google's and Apple's mandatory in-app billing systems. By doing so, Epic circumvented the hefty commissions that both platforms charge developers for in-app purchases and subscriptions. For Epic Games, these commissions typically range from 15-30%.

Fortnite, which operates under a free-to-play model, generates revenue through in-app purchases and other gameplay-related items. Epic's CEO Tim Sweeney took issue with Google's cut from every transaction made through Android devices, believing it was unjust and restrictive. In retaliation, both Google and Apple removed Fortnite from their respective app stores, leading Epic to file two separate antitrust lawsuits – one against Google and the other against Apple. This move was seen as a direct challenge to the tech giants' dominance in the app store economy and brought the issue of digital monopolies to the forefront.

The legal battle between Epic Games and Google has been drawn out over several years, with various pieces of evidence surfacing during the trial. A key argument from Epic was that Google's practices – such as making exclusive agreements with developers and enforcing the use of its own billing system – were inherently anti-competitive. Google had made deals with companies like Activision Blizzard and Nintendo, offering incentives such as lower commissions to get their apps and games onto the Play Store while requiring them to use Google's billing system.

The case was a jury trial, and in December 2023, the jury unanimously found that Google had engaged in anti-competitive practices that harmed Epic's business and stifled competition for other developers. This ruling ultimately led to Judge Donato's injunction.

How do Epic's lawsuits against Google and Apple differ?

While Epic filed similar antitrust lawsuits against both Google and Apple, the outcomes of these two cases have been quite different. Epic's lawsuit against Apple, which was a bench trial,

resulted in a mixed ruling. U.S. District Judge Yvonne Gonzalez Rogers found that while Apple was not a monopoly in the app marketplace, it had still imposed some anti-competitive policies. The court ordered Apple to allow developers to offer payment options for in-app purchases, but Epic was required to pay damages for violating Apple's developer agreement.

However, the injunction against Google presents a stark contrast. As the Google case was tried before a jury, Epic had a greater opportunity to present evidence of Google's exclusive agreements with other developers, which helped convince the jury that Google had violated antitrust laws. This difference in how the cases were handled – bench trial versus jury trial – had a significant impact on the outcomes.

How will it impact the app economy?

The implications of these rulings, especially the injunction against Google, could be profound for the app economy, which is valued at over \$250 billion and is largely controlled by Google Play Store and Apple's App Store. First, Google and Apple will need to revise their app store policies to accommodate more developer-friendly terms, such as allowing alternative payment methods and perhaps reducing the commissions they charge on in-app transactions.

Moreover, the injunction against Google could open the door for alternative app stores, which would reduce the near-total control Google and Apple have over app distribution. For consumers, this might mean lower prices for apps, subscriptions, and in-app purchases, as developers will no longer be forced to pay high commissions to app store operators. The knock-on effect could be significant, allowing smaller developers to pass on savings to consumers and potentially lowering the barrier to entry for new app makers.

However, one potential downside is app discoverability. Today, developers only need to create and promote their apps on two major platforms – Google's Play Store and Apple's App Store. But in a world with multiple app stores, smaller developers may find it harder to get noticed and attract customers across these fragmented marketplaces. Overall, these legal decisions mark a major shift in how the app economy may operate going forward. They reflect growing scrutiny of big tech companies and their influence over digital marketplaces, which could pave the way for more open competition and fairer terms for developers.



Game changer: In 2020, Epic Games introduced a direct payment option. AFP

- The injunction is seen as a significant moment in the ongoing conflict between app developers and app store operators over market control.
- Legal tensions have been escalating for years between app developers and major operators like Google and Apple.
- A key incident occurred in August 2020 when Epic Games introduced a direct payment option in its app, bypassing Google's and Apple's billing systems.





- By doing so, Epic aimed to avoid the 15-30% commissions charged by both platforms on in-app purchases.
- Epic's CEO Tim Sweeney criticized Google's transaction cut as unjust and restrictive.
- In response, Google and Apple removed Fortnite from their app stores, prompting Epic to file separate antitrust lawsuits against both companies.
- The legal battle highlighted concerns over digital monopolies and the dominance of tech giants in the app economy.
- Evidence presented during the trial indicated that Google's practices, including exclusive agreements and enforcement of its own billing system, were anti-competitive.
- Google had made deals with companies like Activision Blizzard and Nintendo, offering lower commissions for using its billing system.
- A jury found in December 2023 that Google engaged in anti-competitive practices that harmed Epic's business and stifled competition for other developers, leading to Judge Donato's injunction.

How do Epic's lawsuits against Google and Apple differ?

- Epic filed similar antitrust lawsuits against both Google and Apple, but the outcomes differed significantly.
- Epic's lawsuit against Apple resulted in a mixed ruling from U.S. District Judge Yvonne Gonzalez Rogers, who found that Apple was not a monopoly but had imposed anti-competitive policies.
- The court ordered Apple to allow developers to offer alternative payment options for in-app purchases, but Epic was required to pay damages for violating Apple's developer agreement.
- In contrast, Epic's case against Google was tried before a jury, allowing more evidence of Google's exclusive agreements to be presented.
- This evidence helped convince the jury that Google violated antitrust laws, leading to a more favorable outcome for Epic.
- The difference in trial types (bench trial for Apple vs. jury trial for Google) significantly impacted the rulings.
- The implications of these rulings could profoundly affect the app economy, valued at over \$250 billion and largely controlled by Google Play Store and Apple's App Store.
- Google and Apple will likely need to revise their app store policies to allow alternative payment methods and possibly reduce commissions on in-app transactions.
- The injunction against Google could lead to the emergence of alternative app stores, reducing the control that Google and Apple have over app distribution.
- For consumers, this may result in lower prices for apps, subscriptions, and in-app purchases, as developers would no longer face high commissions.
- Smaller developers could pass on savings to consumers, lowering the barrier to entry for new app makers.





- A potential downside could be app discoverability; smaller developers may struggle to get noticed in a marketplace with multiple app stores.

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- Overall, these legal decisions signal a major shift in the app economy, reflecting increased scrutiny of big tech companies and their influence, potentially leading to more

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open competition and fairer terms for developers.

How will a classical status help languages?

What does this mean for Marathi, Bengali, Assamese, Pali and Prakrit? On what basis is such a status accorded?

GS Paper I: Art and Culture

The story so far:

The Union Cabinet approved classical status for five languages earlier this month – Marathi, Bengali, Assamese, Pali, and Prakrit – by tweaking the criteria for the declaration.

What makes a language classical?

When the new UPA-led Union government introduced the classical status for Indian languages in 2004, it defined them using three criteria: that its earliest texts or recorded history dated back over a thousand years; that it had a body of ancient literature considered a valuable heritage by generations of speakers; and that its literary tradition must be original and not borrowed from another speech community. Tamil was the first language declared to be classical. In 2005, these criteria were tweaked to push back the historical requirement to 1,500 to 2,000 years and to stipulate that “the classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots”. Under these norms, five more languages were declared as classical over the next decade: Sanskrit, Telugu, Kannada, Malayalam, and Odia.

How did these languages attain this status?

“In 2012, the Pathare committee was set up to develop the proposal [for Marathi to be declared a classical language] with evidence from old documents. It was finally submitted to the [Union Culture Ministry’s] Linguistic Experts Committee [LEC] in November 2013,” says Sadanand More, chairman of the Maharashtra State Literature and Culture Board. In July 2014, then-Congress Chief Minister Prithviraj Chavan presented the proposal to the newly elected Modi-led government at the Centre, and State

‘A classical status is a matter of national pride for a language; it will help research proposals in the vernacular languages to get central funds’

governments led by the BJP and Shiv Sena continued to pursue the matter for a decade. “Over a lakh people sent postcards to the President, MPs asked questions in Parliament, someone went to court...” says

Dr. More. Noting that Marathi has at least 2,000 years of consistent history, he claimed that Maharashtra Prakrit was an original language, unlike other forms of Prakrit which are derivative.

In July 2024, the LEC removed the requirement that any proposed language’s “literary tradition must be original and not borrowed from another speech community”, and added a requirement for “knowledge texts, especially prose texts in addition to poetry, epigraphical and inscriptional evidence”. It also said a classical language “could be” distinct from its current form.

These new criteria paved the way for not just Marathi, but also Bengali and Assamese, which are also modern languages in current use. “We submitted a 392-page report to the Culture Ministry in March 2021 tracing the history of Assamese to prove its antiquity. Stone inscriptions go as far back as the third century AD. There are copper plates and manuscripts written on the bark of the Sanchi tree, as well as extensive folklore and folksongs in Assamese,” Kuladhar Saikia, former president of the Assam Sahitya Sabha said, noting that the popular drive to protect Assamese comes from a colonial history of attempted language erasure. West Bengal Chief Minister Mamata Banerjee had, in January 2024, sent a four-volume report to the Centre, seeking classical status for Bengali on the grounds of concrete evidence proving that it existed as a written language as far back as the 3rd or 4th century BCE.

What lies ahead for the newly declared classical languages?

“It is important that the language in which Nobel Prize winner Rabindranath Tagore wrote is recognised as a classical language, at a time when many people are reluctant to speak in Bangla,” says Nrisingha Prasad Bhaduri, a writer, historian and Indologist. “So many Bengali works are awaiting translation. Bengali dialects also need support. This will also help research proposals in Bangla to get central funds.” The Centre has funded universities for Sanskrit and Tamil and centres of excellence and university chairs for the other existing classical languages, as well as national and international awards. Central budget grants for classical languages have ranged from ₹51 crore for Tamil in the last decade to ₹3.7 crore for Malayalam since 2020.

“There are so many rock inscriptions in Assamese which are yet to be deciphered, and this will support researchers seeking to study the ancient language and translate Assamese classics,” says Mr. Saikia. “But we also hope it will give a fillip to the learning and use of modern Assamese, given the rise of English-medium schools. Our report proved that our language has deep roots. Now we must ensure that it also has support to spread its leaves and branches.”



How will a classical status help languages? (20 October)

What does this mean for Marathi, Bengali, Assamese, Pali and Prakrit? On what basis is such a status accorded?

- The Union Cabinet approved classical status for five languages: Marathi, Bengali, Assamese, Pali, and Prakrit.
- Classical languages are defined by three criteria:
 - Earliest texts or recorded history dating back over a thousand years.
 - A body of ancient literature considered valuable by generations of speakers.
 - An original literary tradition, not borrowed from another speech community.
- Tamil was the first language declared classical, followed by Sanskrit, Telugu, Kannada, Malayalam, and Odia.
- The Pathare committee was established in 2012 to propose Marathi's classical status, submitting evidence from old documents.
- The proposal was presented to the Union Culture Ministry in 2014 and pursued for nearly a decade with public support.
- The Linguistic Experts Committee (LEC) updated the criteria in July 2024, removing the requirement for literary originality and adding a need for prose texts and inscriptional evidence.
- New criteria allowed modern languages like Marathi, Bengali, and Assamese to attain classical status.
- Assamese's history was supported by evidence such as stone inscriptions from the third century AD and extensive folklore.
- West Bengal Chief Minister Mamata Banerjee submitted a report proving Bengali existed as a written language as far back as the 3rd or 4th century BCE.
- Recognizing Bengali as a classical language is seen as vital for its preservation and support for dialects and translations.
- The Centre has funded universities and centres for existing classical languages, with varying budget grants.
- The new status is expected to support research in Assamese and enhance its usage in the face of rising English-medium education.
- There is hope that classical recognition will help promote the learning and use of modern Assamese while preserving its ancient roots.



Peacekeepers under attack

UNIFIL

Established by a 1978 UN mandate, the peacekeeping troops are today caught between the Israeli Army and Hezbollah militants in southern Lebanon

GDS Paper II: International Organization

Suchitra Karthikeyan

“We are staying”, asserted the UN Interim Force in Lebanon (UNIFIL) on October 13, in the wake of the Israeli attack on the force’s premises in southern Lebanon. UNIFIL is the global body’s peacekeeping force patrolling southern Lebanon. Currently, the group has come under direct fire from the Israeli Defence Forces (IDF), which continues to expand its war against Hezbollah in Lebanon.

Established in 1978 by the UN’s Security Council, UNIFIL was tasked with ensuring the withdrawal of Israeli troops from southern Lebanon after Tel Aviv invaded Beirut to push back the Palestine Liberation Organization (PLO). UNIFIL is also tasked with maintaining peace and security in the region and assisting the Lebanese government to regain authority in the area. The 9,532-strong troops monitor movement across the UN-mapped ‘Blue line’ spanning the 120 km border between Israel and Lebanon.

Drawing troops from 34 nations, Indonesia is UNIFIL’s biggest contributor supplying 1,215 personnel, followed by Italy (963), India (876), Nepal (858) and Ghana (857). Operating across 29 locations between the Litani River in



PHOTO: AFP

the north and the Blue line in the south, UNIFIL has suffered 334 fatalities as of date. With a \$500-million budget funded annually by the UN General Assembly, UNIFIL’s relevance is only growing as confrontations escalate.

In 1982, Israel invaded Lebanon again, leading to the PLO’s exit from the country. As the occupation prolonged, Hezbollah rose as a resistance force. Israel continued its occupation of parts of Southern Lebanon, which saw multiple clashes between Hezbollah and the IDF throughout the 1980s and 1990s.

In 2000, Israel unilaterally withdrew troops from Lebanon, which led to UNIFIL troops being reconfigured and redeployed in the south. In 2006, Hezbollah conducted a cross-border raid in Israeli border towns, leading to a ground invasion by the IDF into Lebanon. The 34-day conflict ended after a UN-brokered ceasefire and with it, UNIFIL’s mandate was expanded to monitor cessation of hostilities, support

the Lebanese Army as Israeli troops withdrew, ensure humanitarian aid access, return of displaced persons, keep UNIFIL’s operational area free of troops, weapons and assets other than its own and Lebanon’s. The peacekeeping force was also tasked with assisting the Lebanese Army in securing and controlling its borders. This has not been possible as southern Lebanon is currently under Hezbollah’s control.

Escalation in Lebanon

The IDF dramatically escalated the war against Hezbollah in September, with the killing of its chief, Hassan Nasrallah, and several other top level commanders.

Caught between the IDF and Hezbollah, UNIFIL first came under fire on October 10, when the IDF fired at three positions of UNIFIL including its main base in Naqoura. A week earlier, UNIFIL had written to the IDF objecting to Israeli military vehicles and troops positioning them-

selves ‘in the immediate proximity’ to UN positions, ‘endangering the safety of UNIFIL personnel’.

On October 13, two IDF Merkava tanks destroyed the main gate and forcibly entered a UNIFIL position, injuring five peacekeepers, damaging the premises and disrupting mission movements. The two tanks left after two hours and firing several rounds, emitting smoke and affecting civilian peacekeepers inside the UNIFIL building.

As UNIFIL accused the IDF of ‘deliberate breach and targeting peacekeepers’, Israeli Prime Minister Benjamin Netanyahu urged UNIFIL to ‘temporarily get out of harm’s way’, as its presence was acting as a ‘human shield’ for Hezbollah.

UNIFIL’s spokesperson Andrea Tenenti reminded him that the mission was in Lebanon under a Security Council mandate and it involved parties’ obligation to ensure the safety of its troops. Backing UNIFIL, UN Secretary-General Antonio Guterres said, “The UN flag continues to fly”.

India, one of the contributing countries of UNIFIL, stated it takes safety of UN peacekeepers ‘very seriously’ and called for action to maintain troops’ safety, but stopped short of condemning the IDF. The Ministry of External Affairs has confirmed that no Indian troops have been deployed at the Blue Line.



Peacekeepers under attack (20 October)

Established by a 1978 UN mandate, the peacekeeping troops are today caught between the Israeli Army and Hezbollah militants in southern Lebanon

- UN Interim Force in Lebanon (UNIFIL) asserted it would remain in southern Lebanon following an Israeli attack on its premises.
- UNIFIL is a peacekeeping force established in 1978 by the UN Security Council to monitor the withdrawal of Israeli troops from southern Lebanon after the invasion to push back the Palestine Liberation Organization (PLO).
- Its tasks include maintaining peace, assisting the Lebanese government, and monitoring movement across the 120 km border (the 'Blue Line') between Israel and Lebanon.
- UNIFIL has 9,532 troops from 34 nations, with Indonesia as the largest contributor (1,215 personnel), followed by Italy (963), India (876), Nepal (858), and Ghana (857).
- The force operates across 29 locations and has suffered 334 fatalities.
- With a \$500 million annual budget from the UN General Assembly, UNIFIL's relevance is increasing amid escalating confrontations.
- In 1982, Israel invaded Lebanon again, leading to the PLO's exit and Hezbollah's rise as a resistance force.
- Israel occupied parts of southern Lebanon, leading to multiple clashes with Hezbollah throughout the 1980s and 1990s.
- In 2000, Israel unilaterally withdrew from Lebanon, leading to the reconfiguration of UNIFIL troops.
- The 2006 conflict, initiated by Hezbollah's cross-border raid, resulted in a ground invasion by the IDF and a UN-brokered ceasefire that expanded UNIFIL's mandate.
- UNIFIL's expanded tasks include monitoring cessation of hostilities, supporting the Lebanese Army, ensuring humanitarian aid access, and maintaining a troop-free operational area.
- The area remains under Hezbollah's control, complicating UNIFIL's mission.
- In September 2023, the IDF escalated its war against Hezbollah, killing its chief, Hassan Nasrallah, and other commanders.
- UNIFIL first came under fire on October 10, with the IDF targeting three UNIFIL positions, including its main base.
- UNIFIL had previously objected to Israeli military positioning near its locations, citing safety concerns for its personnel.
- On October 13, IDF Merkava tanks entered a UNIFIL position, injuring five peacekeepers and damaging the premises.
- Israeli Prime Minister Benjamin Netanyahu suggested UNIFIL should withdraw temporarily, claiming its presence acted as a "human shield" for Hezbollah.



- UNIFIL's spokesperson emphasized the mission's obligation under the Security Council mandate to ensure the safety of its troops.
- UN Secretary-General Antonio Guterres reaffirmed support for UNIFIL.
- India, a contributing country, expressed concern for the safety of peacekeepers but did not condemn the IDF; the Ministry of External Affairs confirmed no Indian troops were deployed at the Blue Line.

Plankton balloon to six times their size to reach ocean surface

The Hindu Bureau

Many plankton journey from the cold, dark depths of our oceans to the surface, only to eventually drift down again into the darkness in a perpetual rhythm. Yet, how single-celled phytoplankton, most of which have no appendages to help them swim, make this pilgrimage has remained a mystery. In a paper published in the journal *Current Biol-*

ogy, researchers describe a species of bioluminescent phytoplankton, called *Pyrocystis noctiluca*, that balloons to six times their original size of a few hundred microns.

Phytoplankton are, on average, 5%-10% heavier than seawater, meaning that if they want to remain at the surface to photosynthesize, they have to find a way to beat gravity. The researchers discovered that *P. noctiluca* cells be-

have more like little submarines which can control their density so they can choose where they want to reach the ocean's surface.

'Natural part'

On a research vessel off the coast of Hawaii, one of the authors stumbled upon a bloom of *P. noctiluca* and surprisingly found two very different sizes in their nets. Videos helped the team see the cells doing the massive inflation. To

test what effects this rapid growth might have on the plankton, the research team utilized their novel "gravity machine." By altering water pressure and density within the gravity machine, the team can create a virtual reality environment mimicking the ocean's depths.

With the machine, the team discovered that inflated cells were less dense than the surrounding seawater, letting them escape

the downward pull of gravity and float toward the virtual surface.

Further investigation showed this expansion happens as a natural part of the plankton's cell cycle. Once a single-celled plankton divides into two, an internal structure called a vacuole, a kind of flexible water tank, filters in fresh water, causing the two new cells to massively grow in size. These two daughter cells, now swelled with the

lighter freshwater, sail upward. "So, what happens during normal time? You are making a lot of proteins, you have tons of sunlight, and you make a lot of biomass until you get heavier and you sink. Then, you do cell division in the deeper waters and use inflation to get back to the size of the mother," Manu Prakash, a marine biologist and bioengineer at Stanford University said in a release.

Plankton balloon to six times their size to reach ocean surface (20 October)

- Many plankton travel from the cold, dark depths of oceans to the surface and then drift back down, creating a perpetual rhythm.
- The movement of single-celled phytoplankton, which lack appendages for swimming, has been a mystery.
- A study published in *Current Biology* describes the bioluminescent phytoplankton species *Pyrocystis noctiluca*, which can balloon to six times its original size.
- Phytoplankton are typically 5%-10% heavier than seawater, necessitating a method to counteract gravity in order to stay at the surface for photosynthesis.
- Researchers found that *P. noctiluca* behaves like submarines, controlling their density to determine their depth in the ocean.
- The discovery occurred off the coast of Hawaii, where researchers found a bloom of *P. noctiluca* and observed two different sizes in their samples.
- Videos captured the cells undergoing rapid inflation.
- The research team utilized a "gravity machine" to simulate ocean conditions by altering water pressure and density.
- This setup revealed that inflated cells are less dense than surrounding seawater, allowing them to float upwards.
- Further investigation indicated that the inflation occurs as a natural part of the plankton's cell cycle.





- When a single-celled plankton divides, an internal structure called a vacuole filters in freshwater, causing the new cells to grow significantly.
- The two daughter cells, filled with lighter freshwater, ascend toward the surface.
- Manu Prakash, a marine biologist at Stanford University, explained that phytoplankton create biomass until they become too heavy and sink, then use inflation to return to the size of the mother cell after division.

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Redesigned programmes can improve TB treatment outcomes

Doubling the direct benefit transfer to ₹1,000 per month, disbursing ₹3,000 at the time of diagnosis, and nutrition support to TB patients can have a huge impact

GS Paper III: S&T

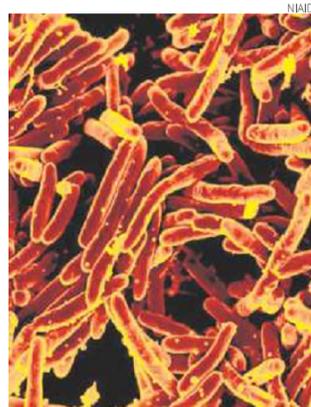
Anurag Bhargava
Madhavi Bhargava

TB remains a major public health problem in India with an estimated three million new patients with TB and 3,00,000 TB deaths every year. The recent announcement by the Ministry of Health and Family Welfare of doubling the direct benefit transfer from ₹500 to ₹1,000 per month in the Nikshay Poshan Yojana (NPY) for the entire duration of treatment, and initiating the disbursement of ₹3,000 at the time of diagnosis is a welcome step. There is also a proposal to provide energy-dense nutritional supplements to underweight patients for two months and to extend nutritional and social support to the families. India is probably the only high TB burden country to roll out such a large-scale scheme that will address the nutritional needs and the economic distress of the patients.

TB remains a social disease in its causation and its outcomes. Social factors associated with poverty, such as overcrowding and undernutrition increase the risk of TB. Most other risk factors, too, like diabetes, smoking, and alcohol, are either more prevalent or are poorly managed in those living in poverty. Undernutrition contributes to more than a third to nearly half of new TB cases in India. Poor access to primary care, poor quality of care, and poor adherence generate a vicious cycle leading to severe disease and risk of death in the poor. Their predicament is grim as they face income loss, direct and in-

More nutrition support for TB patients

Undernutrition is one of the main reasons for TB disease



STAGGERING: India reports three million TB cases and 3,00,000 TB deaths each year

- The Health Ministry has doubled the direct benefit transfer from ₹500 to ₹1,000 per month for the entire duration of treatment
- Under the revised Nikshay Poshan Yojana (NPY) programme, the process of disbursing ₹3,000 will be at the time of diagnosis
- The Chennai-based National Institute of Epidemiology found non-receipt of benefits under NPY was associated with a four-fold higher risk of adverse outcomes
- There is also a proposal to provide energy-dense nutritional supplements to underweight patients for two months
- The RATIONS trial found compelling evidence that nutritional support improves treatment adherence, weight gain, and 50% reduced risk of deaths
- Given the prevalence of severe undernutrition in TB patients, two months of nutritional support may not be sufficient
- Commercial nutritional supplements risk higher cost, mystification, lower acceptability, and lower long-term sustainability

direct costs due to the disease and its treatment, food insecurity, and often an inability to return to usual work because of the sequelae of the disease.

The Nikshay Poshan Yojana is crucial because severe undernutrition is common in people with TB in India – the average weight of adult men is 43 kg and 38 kg for adult women at diagnosis. Without nutritional support, such patients have worse outcomes during and after treatment. These patients often do not have early weight gain, and this poses a high risk of death; even after effective treatment, undernutrition may persist, increasing the risk of recurrent TB. Studies also show a high prevalence of food insecurity in TB-affected households. Nutritional support thus has a sound clinical, public health, and ethical basis. It aligns with India's 2017 adaptation of the WHO gui-

delines on nutrition care and support for patients with TB. There is compelling evidence that nutritional support with food baskets can improve treatment adherence and weight gain, allow a successful return to work, and reduce mortality risk. In the RATIONS trial, in patients provided with a 10 kg per month food basket, early weight gain was associated with over 50% reduced risk of death. Moreover, a low-cost intervention of six months with a food basket of cereals and pulses with micronutrient pills for family members reduced new cases by up to 50%, akin to a vaccine.

An evaluation of the NPY programme over five years by the Chennai-based National Institute of Epidemiology (NIE) has significant lessons. An important challenge is that the TB programme staff, now engaged in other new

initiatives, feel overburdened by the processes of facilitating the direct benefit transfer. Another issue is that the most vulnerable communities cannot access the benefit because of a lack of proof of identity, residence, bank accounts, or distances involved. The NIE evaluation showed that non-receipt of benefits under NPY was associated with a four-fold higher risk of adverse outcomes.

As clinicians and researchers working in this field, some clarifications and implementation issues must be addressed. First, there is a need for dedicated human resources for NPY activities, and these can also be utilised for newer initiatives like evaluating household contacts. Second, there is a need for locally contextualised counseling material for patients and family members to emphasise nutrition as an essential component of treatment. It should in-

clude locally available and culturally acceptable foods to optimise the intake of energy and calories. Quality protein intake is deficient in poorer households. Pulses, soybean ground nuts, milk, and eggs are more cost-effective sources than supplements derived from them, and this needs particular emphasis in the counseling. Third, given the evidence supporting food baskets, the recommendation related to energy-dense supplements should be deliberated upon. Commercial nutritional supplements risk higher cost, mystification, lower acceptability, and lower long-term sustainability. Given the prevalence of severe undernutrition in our patients, two months of nutritional support may not be sufficient.

Fourth, with regard to Nikshay Mitra, the coverage of the most vulnerable is inadequate, and a redesign is warranted. Due to the significant stigma of TB, an explicit advisory against pictures of patients and families receiving food baskets is needed. Finally, nutritional, financial, and social support initiatives can work best if they are integrated with other aspects of care – uninterrupted supply of drugs, better management of comorbidities, better evaluation of patients at diagnosis for high-risk features, and referral for in-patient care as is being done in Tamil Nadu – are vital to ensuring better outcomes. (Anurag Bhargava and Madhavi Bhargava work in the departments of Medicine and Community at the Yenepoya Medical College, Mangalore, and led the RATIONS trial)



Redesigned programmes can improve TB treatment outcomes (20 October)

Doubling the direct benefit transfer to ₹1,000 per month, disbursing ₹3,000 at the time of diagnosis, and nutrition support to TB patients can have a huge impact

- Tuberculosis (TB) remains a significant public health issue in India, with an estimated three million new patients and 300,000 TB deaths annually.
- The Ministry of Health and Family Welfare has announced an increase in the direct benefit transfer for the Nikshay Poshan Yojana (NPY) from ₹500 to ₹1,000 per month for the duration of treatment.
- A one-time disbursement of ₹3,000 at the time of diagnosis will also be initiated.
- There is a proposal to provide energy-dense nutritional supplements to underweight patients for two months and extend nutritional and social support to their families.
- India is likely the only high TB burden country implementing such a large-scale initiative to address the nutritional needs and economic distress of TB patients.
- TB is influenced by social factors associated with poverty, such as overcrowding and undernutrition, which increase the risk of the disease.
- Other risk factors like diabetes, smoking, and alcohol are more prevalent or poorly managed among impoverished populations.
- Undernutrition is linked to over a third to nearly half of new TB cases in India.
- Poor access to primary care, low-quality care, and poor adherence create a vicious cycle that leads to severe disease and increased mortality among the poor.
- TB patients often face income loss, direct and indirect costs from the disease and treatment, food insecurity, and difficulty returning to work due to health issues.
- The Nikshay Poshan Yojana is vital because severe undernutrition is common in TB patients, with average weights of 43 kg for adult men and 38 kg for adult women at diagnosis.
- Without nutritional support, TB patients have worse treatment outcomes and higher mortality risks, with persistent undernutrition increasing the risk of recurrent TB.
- Studies indicate a high prevalence of food insecurity in TB-affected households, making nutritional support clinically, publicly, and ethically justified.
- This initiative aligns with India's 2017 adaptation of WHO guidelines on nutrition care and support for TB patients.
- Evidence shows that nutritional support, such as food baskets, can improve treatment adherence, facilitate weight gain, enable a return to work, and reduce mortality risk.
- In the RATIONS trial, patients receiving a 10 kg monthly food basket experienced over a 50% reduced risk of death associated with early weight gain.





- A low-cost six-month intervention providing a food basket of cereals and pulses, along with micronutrient pills for family members, reduced new TB cases by up to 50%, comparable to vaccine effectiveness.
- An evaluation of the Nikshay Poshan Yojana (NPY) by the Chennai-based National Institute of Epidemiology (NIE) has highlighted significant lessons.
- One challenge is that TB program staff, engaged in new initiatives, feel overburdened by the processes required for facilitating direct benefit transfers.
- Vulnerable communities often cannot access benefits due to lack of proof of identity, residence, bank accounts, or due to distance.
- The NIE evaluation found that non-receipt of benefits under NPY was associated with a four-fold higher risk of adverse outcomes.
- There is a need for dedicated human resources for NPY activities, which can also support new initiatives like evaluating household contacts.
- Locally contextualized counseling material is needed for patients and family members to emphasize the importance of nutrition in treatment.
- Counseling should include locally available and culturally acceptable foods to optimize energy and calorie intake.
- Quality protein intake is often deficient in poorer households; cost-effective sources include pulses, soybeans, groundnuts, milk, and eggs.
- The recommendation for energy-dense supplements should be reconsidered, as commercial nutritional supplements may pose higher costs and lower acceptance.
- Two months of nutritional support may be insufficient given the prevalence of severe undernutrition among patients.
- The Nikshay Mitra program's coverage of the most vulnerable populations is inadequate and warrants redesign.
- Due to the stigma associated with TB, explicit advisories against photographing patients and families receiving food baskets are necessary.
- Nutritional, financial, and social support initiatives will be most effective when integrated with other aspects of care, including uninterrupted drug supply and better management of comorbidities.
- Improved evaluation of patients at diagnosis for high-risk features and referral for inpatient care, as practiced in Tamil Nadu, are vital for better outcomes.

Gene copies (20 October)

- **Humans carry multiple copies of the salivary amylase gene (AMY1), which helps break down complex carbohydrate starch in the mouth.**
- Determining when the number of AMY1 genes expanded has been challenging.





- A new study suggests that the duplication of the AMY1 gene may have occurred more than 800,000 years ago.
- This gene duplication may have played a significant role in human adaptation to starchy foods.
- Early duplications set the stage for genetic variation influencing starch digestion in humans.
- Research indicates that pre-agricultural hunter-gatherers had an average of four to eight AMY1 copies per diploid cell.
- This suggests that humans had high AMY1 copy numbers while roaming Eurasia, well before domesticating plants and consuming large amounts of starch.

Tata Projects eyes green hydrogen, green ammonia, pump-storage hydro: CEO Pai (20 October)

- Tata Projects Ltd. aims to build **green hydrogen and green ammonia** units as part of its future expansion strategy.
- Vinayak Pai, MD & CEO, emphasized that sustainability is critical and offers new opportunities in various sectors.
- He believes green hydrogen and green ammonia will accelerate in development over the next few years.
- India's high percentage of renewable energy generation, especially solar energy, positions it well for hydrogen and ammonia production.
- The generated power can be stored and transported as hydrogen or ammonia.
- Pai mentioned the concept of pump storage hydro, where water is pumped during the day with renewable energy to generate electricity at night.
- These methods harness renewable energy effectively.
- Tata Projects has experience in hydrocarbons through its oil, gas, and hydrocarbon business, which aids in handling hydrogen.
- The company is also exploring opportunities in sustainable aviation fuel and battery manufacturing and recycling facilities.



GoM decides to cut GST on 20-litre water bottles, bicycles to 5%

- The Group of Ministers (GoM) on GST rate rationalisation proposed lower tax rates on certain items.
- Suggested reducing **GST on 20-litre packaged drinking water bottles, bicycles, and exercise notebooks to 5%**.
- Proposed raising GST on **high-end wrist watches and shoes**.
- The decision could lead to a revenue gain of ₹22,000 crore.
- **GST on packaged drinking water of 20 litres and above to be reduced from 18% to 5%.**
- **GST on bicycles costing less than ₹10,000 to be reduced from 12% to 5%.**
- GST on exercise notebooks proposed to be lowered from 12% to 5%.
- Suggested increasing **GST on shoes above ₹15,000 and wrist watches above ₹25,000 from 18% to 28%.**
- Previous discussions included tax rate tweaks on over 100 items to provide relief to the common man.
- Some items currently in the **18% slab, such as hair dryers and beauty preparations, may return to the 28% bracket.**
- The six-member GoM includes finance ministers from several states.
- Current GST has a four-tier tax structure with slabs at 5%, 12%, 18%, and 28%.
- Essential items are either exempted or taxed at the lowest slab; luxury items attract the highest slab.
- Average GST rate has fallen below the revenue neutral rate of 15.3%, necessitating discussions on rate rationalisation.



‘Auto industry likely to grow more than three times to \$250 billion’

GS Paper III:
Economy

MUMBAI

The auto industry, currently estimated at about \$80 billion in India with \$15 billion in exports, is expected to grow more than three times to \$250 billion in the next few years, said Arvind Goel, chairman, CII WR Taskforce on Future Mobility, and Chairman, Tata AutoComp Systems Ltd.

“As India plans to achieve net carbon zero by 2070, many companies have targets to achieve it much before that. A huge amount will be invested by companies to take India to

net carbon zero,” Mr. Goel said at the CII NexGen Expo 2024 currently underway in Pune.

“With the abundance of renewable energy, the industry will move more quickly in the EV space. The auto industry will have a major role to play in the quantum of growth and opportunities as India aims to be a developed country by 2047,” he added.

Swati Salgaocar, chairperson, CII Western region, noted that urban mobility faces challenges like congestion, pollution, and uneven access. “Future mobility must be sustaina-



ble, integrated, and automated. Trends like EVs, shared mobility, and autonomy are transforming cities globally. India is at a crucial stage of urbanisation, and decision-makers must act now,” she said.

Rishi Kumar Bagla, de-

puty chairman, CII Western region said India’s automotive component sector has seen steady growth in exports over the past decade, driven by cost optimisation in manufacturing, skill development, adherence to global standards, and government support with the Make in India initiative.

“India ranks among the top auto component suppliers in the world. If we continue to grow by 7-8% till 2047, the need will be eight times of the current consumption, and therefore the opportunities are huge,” he said.

‘Auto industry likely to grow more than three times to \$250 billion’ (20 October)

- The auto industry in India is currently estimated at about \$80 billion, with \$15 billion in exports.
- Expected growth of the auto industry to more than \$250 billion in the next few years.
- Arvind Goel highlighted that companies aim for net carbon zero by 2070, with many targeting earlier timelines.
- Significant investments will be made by companies to help India achieve net carbon zero.
- Abundance of renewable energy will accelerate the industry's move towards electric vehicles (EVs).
- The auto industry will play a major role in growth and opportunities as India aims to be a developed country by 2047.
- Swati Salgaocar noted challenges in urban mobility, including congestion, pollution, and uneven access.
- Emphasized the need for future mobility to be sustainable, integrated, and automated.
- Trends like EVs, shared mobility, and autonomy are transforming global cities.
- India is at a crucial stage of urbanization, necessitating immediate action from decision-makers.



- Rishi Kumar Bagla mentioned steady growth in exports of India's automotive component sector over the past decade.
- Growth driven by cost optimization, skill development, adherence to global standards, and government support via the Make in India initiative.
- India ranks among the top auto component suppliers globally.
- If growth continues at 7-8% until 2047, consumption needs could increase eightfold, creating significant opportunities.

India seeks critical mineral partnership with U.S. as a step towards trade deal talks: Goyal

GS Paper III:
Economy

NEW DELHI

India's Trade Minister on Saturday said the country has sought a critical mineral partnership agreement with the United States as he hopes for talks on a broader trade pact between the two nations.

"I had suggested that critical mineral MoU (memorandum of understanding) to be converted to a critical mineral partnership and become a starting point to become an FTA (Free Trade Agree-



ment)," Piyush Goyal told reporters at a press briefing in the capital.

Earlier this month, India and the U.S. signed an initial pact to cooperate on strengthening supply chains in the two countries for lithium, cobalt and oth-

er critical minerals used in electric vehicles and clean energy applications.

The MoU fell far short of a full critical minerals trade deal that would allow India to benefit from the \$7,500 U.S. electric vehicle tax credit.

Minerals-focused trade deals are one way that the U.S. President Joe Biden's administration hopes to open up access for trusted allies to a \$7,500 per vehicle EV tax credit introduced in last year's climate-focused Inflation Reduction Act.

India seeks critical mineral partnership with U.S. as a step towards trade deal talks: Goyal (20 October)





- India has sought a critical mineral partnership agreement with the United States.
- Trade Minister Piyush Goyal hopes this partnership could lead to broader trade talks between the two nations.
- Goyal suggested converting the critical mineral MoU (memorandum of understanding) into a critical mineral partnership as a starting point for a Free Trade Agreement (FTA).
- Earlier this month, India and the U.S. signed an initial pact to cooperate on supply chains for **lithium, cobalt**, and other critical minerals used in **electric vehicles and clean energy** applications.
- The MoU does not constitute a full critical minerals trade deal, limiting India's access to the \$7,500 U.S. electric vehicle tax credit.
- The U.S. administration, under President Joe Biden, aims to use minerals-focused trade deals to provide trusted allies access to the EV tax credit established in last year's Inflation Reduction Act.



South Africa and New Zealand in heavyweight clash as the world awaits a new champion

PCS

WOMEN'S T20 WC

Lavanva L

DUBAI

For the first time since 2016, the Women's T20 World Cup will finally have a new winner when South Africa and New Zealand lock horns in the summit clash at the Dubai International Stadium here on Sunday.

Both teams have wounds of a disappointing home World Cup (albeit in different formats) in their recent past – South Africa fell to Australia last year in the T20 World Cup final while New Zealand never made it past the group stage in the ODI World Cup in 2022.

Enroute to the final in the UAE, the Proteas exacted sweet revenge against Australia in the semifinal, with the latter's bid for a four-peat foiled for the second time in T20 World Cup history.

The White Ferns clinched a thrilling knockout game against West Indies to put to bed the ghosts of a loss to the same side in the 2016 edition's semifinal.

South Africa's strength has been its batting. Laura Wolvaardt and Tazmin Brits - who top the scoring charts of the tournament - have been in fine form with key contributions from Anneke Bosch, Marizanne Kapp and Annerie Derksen so far.

The bowlers have topped that with Nonkululeko Mlaba and Kapp providing economical and wicket-taking performance after game.

New Zealand will bank on its bowling line-up once more, with Amelia Kerr - the tournament's leading wicket-taker - at the helm. Keeping an explosive batting arsenal like that of the Windies quiet would have



Let the drum-roll begin: Captains Wolvaardt and Devine with the T20 World Cup trophy at the Museum of The Future. GETTY IMAGES



Playing the 2023 final against Australia, I think we were in two minds, especially while batting. We kind of put ourselves behind the nine ball. You're trying to catch up to a team that's always on top of its game. You have to be playing at 200%

CHLOE TRYON

been a big boost to the side. Eden Carson is a giggly character but has shown no mercy with the ball, keeping her economy rate low and picking up seven wickets so far.

Dubai, however, promises to be about the batters, with conditions suiting spin and seam bowlers, but the surfaces proving easier for shot making and thus seeing the bigger totals of the tournament.

Out of the 11 games played at the venue so far, chasing teams have won seven games which might



There will never be another Devine in world cricket. When I opened with her, I just watched from the other end, wishing I could hit the ball that hard. She's brought some great values to this group, making sure we care about people

SUZIE BATES

weigh in when teams decide what to do if the coin favours them on Sunday.

Dubai has been infamous for dropped catches with the 'Ring of Fire' circular lighting system challenging the best of fielders in the women's game. The White Ferns and the Proteas are clean fielding sides but have seen a catch or two fall through their hands here in the Middle East.

With history on the line and plenty to play for, the team that errs least will triumph.

South Africa and New Zealand in heavyweight clash as the world awaits a new champion

- The Women's T20 World Cup will have a new winner for the first time since 2016, with South Africa facing New Zealand in the final at Dubai International Stadium.
- Both teams are coming off disappointing performances in previous World Cups: South Africa lost to Australia in the T20 final, while New Zealand did not advance past the group stage in the ODI World Cup.
- South Africa avenged their previous loss to Australia by defeating them in the semi-final, preventing Australia from winning a fourth consecutive title.
- New Zealand overcame West Indies in a thrilling knockout game, moving past a previous semi-final loss to the same team in 2016.
- South Africa's batting has been a strength, with Laura Wolvaardt and Tazmin Brits leading the tournament's scoring charts, supported by Anneke Bosch, Marizanne Kapp, and Annerie Derksen.
- South Africa's bowlers, especially Nonkululeko Mlaba and Kapp, have consistently delivered economical and wicket-taking performances.
- New Zealand relies on its strong bowling line-up, with Amelia Kerr as the tournament's leading wicket-taker.
- Eden Carson has maintained a low economy rate and taken seven wickets, showcasing her bowling prowess.
- Dubai's pitch favors batters, making it easier for shot-making and resulting in higher totals throughout the tournament.
- Of the 11 games played at the venue, chasing teams have won seven times, which may influence decisions during the final.
- The 'Ring of Fire' lighting system in Dubai has led to dropped catches, affecting fielding performance.
- Both teams are generally good fielders but have had some catching issues in the tournament.
- The final will hinge on which team makes fewer mistakes.



Mohun Bagan romps to win over East Bengal

PCS

ISL

Aneesh Dey

KOLKATA

Mohun Bagan Super Giant grabbed bragging rights in the season's first Kolkata Derby, beating arch-rival East Bengal 2-0 in an ISL clash at the Vivekananda Yuba Bharati Krirangan here on Saturday.

Jamie Maclaren announced his name on the biggest stage in Indian football, scoring the opening goal before Dimitrios Petratos scored from the spot for Bagan's second.

MBSG started strongly, enjoying greater possession in the opening minutes.

The Mariners had to

First strike: Maclaren starred in Mohun Bagan's victory in the Kolkata derby. DEBASISH BHADURI

wait till the 18th minute for its first major opportunity. Greg Stewart found Maclaren with an excellent low cross from the edge of the box but the Australian was denied.

The Red and Gold lacked a proper game plan,

which was evident from their drab style of football that lacked any attacking opportunities. New coach Oscar Bruzon was a helpless spectator as the EBFC backline got peppered with systematic attacking moves by MBSG.



In the 41st minute, the Australian finally crumpled under pressure. Stewart steered the ball to the right flank, finding Maclaren with a low cross inside the box.

The Australian timed his run to perfection and found the angle to beat Gill and score from the post with a first-time shot.

Mohun Bagan missed an opportunity to score in the 64th minute.

In the 89th minute, Petratos won a penalty after being fouled by Gill inside the box and made no mistake in converting from the spot.

The result: East Bengal 0 lost to Mohun Bagan SG 2 (Maclaren 41, Petratos 89-pen).

Mohun Bagan romps to win over East Bengal (20 October)

- Mohun Bagan Super Giant defeated East Bengal 2-0 in the season's first Kolkata Derby in an ISL match at Vivekananda Yuba Bharati Krirangan.
- Jamie Maclaren scored the opening goal for MBSG.
- Dimitrios Petratos added a second goal from a penalty kick.
- MBSG started the match strongly with greater possession in the opening minutes.
- The first major opportunity for MBSG came in the 18th minute, but Maclaren was denied.
- East Bengal lacked a clear game plan, showing a drab style of play with few attacking chances.
- New coach Oscar Bruzon watched as MBSG consistently pressured the EBFC defense.
- In the 41st minute, MBSG's pressure paid off; Stewart assisted Maclaren with a low cross, allowing him to score at the near post.
- MBSG missed a scoring opportunity in the 64th minute.
- In the 89th minute, Petratos won a penalty after being fouled by Gill and successfully converted it.





- Final score: East Bengal 0 - Mohun Bagan SG 2 (Goals: Maclaren 41, Petratos 89-pen).

Indian Super League (ISL)

- The **Indian Super League (ISL)** is a professional football league in India, established in **2013**.
- It aims to promote football in the country and provide a platform for players to showcase their talent.
- The league has gained significant popularity, both among fans and sponsors, and has contributed to the development of football infrastructure in India.

Structure and Format

- **Teams:** The league initially started with 8 teams, but it has expanded over the years. As of the **2023-2024 season**, the ISL features **12 teams**.
- **Season Format:** The league typically runs from **October to March**. The season consists of a **regular league phase**, followed by playoffs to determine the champion.
- **Playoffs:** The top teams from the league phase qualify for the playoffs, culminating in the **Final** to crown the champion of the season.

Popularity and Impact

- The ISL has significantly increased the visibility of football in India, attracting attention from both local and international players.
- The league has also seen the participation of several renowned international players and coaches, raising the competitive standard of Indian football.
- It has become a platform for local talent to emerge and gain recognition.

Recent Developments

- The **2023-2024 season** of ISL has featured intense rivalries, most notably the **Kolkata Derby** between **Mohun Bagan Super Giant** and **East Bengal**, which is one of the most anticipated matches in Indian football.

Governance and Organization

- The league is governed by the **All India Football Federation (AIFF)**, with the support of the **Football Sports Development Limited (FSDL)**.
- The ISL is part of India's broader efforts to improve the sport's infrastructure and grassroots development, aligning with the vision of the **National Football Development Programme (NFDP)**.

