

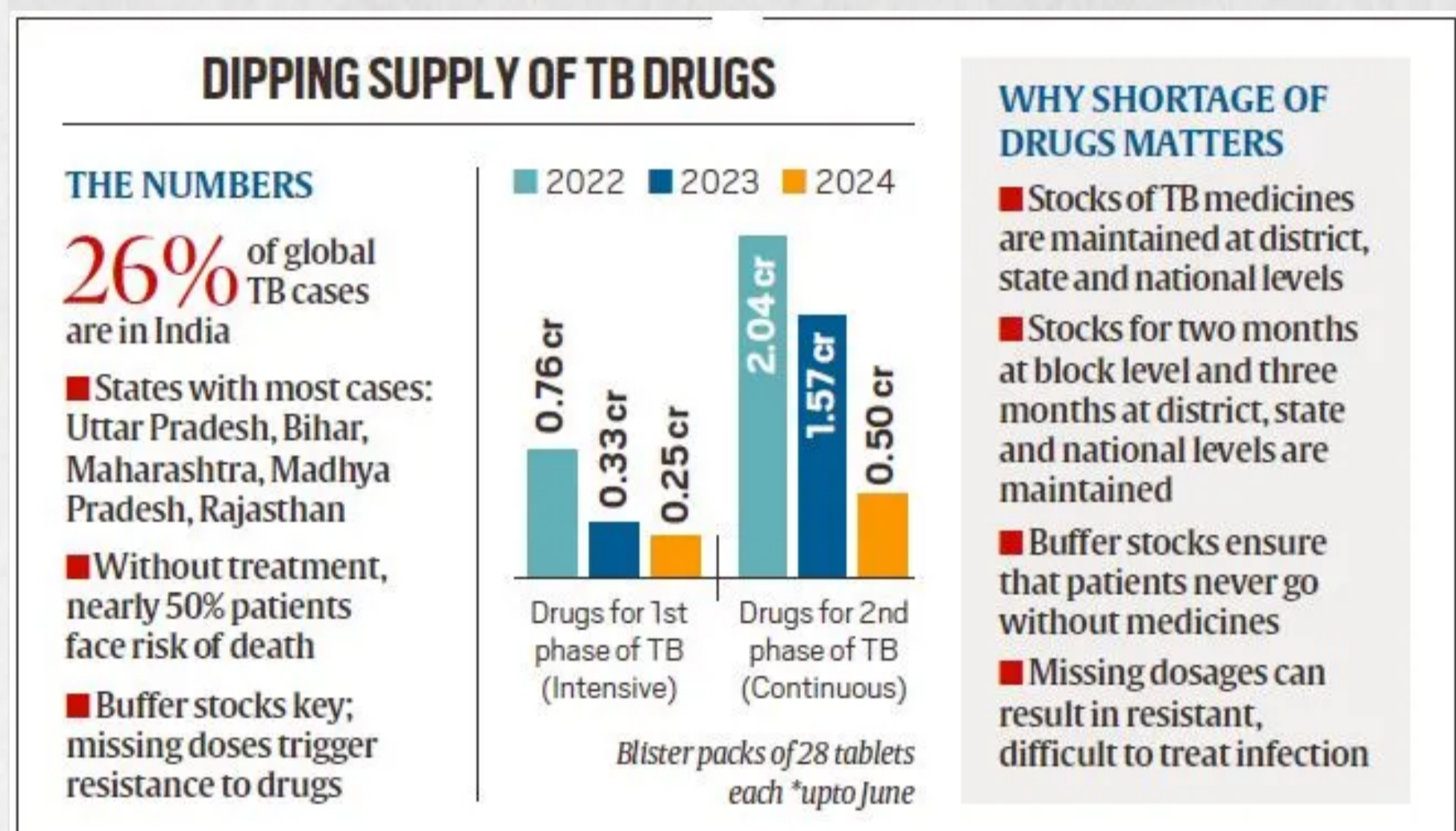
The Lukmaan Newslines

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India's TB Fight Faces Drug Shortages

India, despite milestones like an 18% drop in TB cases in 10 years, faces a severe shortage of essential TB drugs. Supply fell by 56.5% for first-phase and 23% for second-phase drugs in 2023. Reasons include tender cancellations and blacklisted suppliers. States scramble for local procurement, risking drug-resistant TB. The Centre's campaign to eliminate TB by 2025 aims to intensify detection but hinges on resolving supply issues.



Source: The Indian Express



Bhutan and India hold talks on urban and power projects

During King Jigme Khesar Namgyal Wangchuk's visit, India and Bhutan deliberated on bilateral projects, including urban planning in Gelephu and hydropower initiatives. The talks emphasized strengthening economic and cultural ties while focusing on sustainable infrastructure development.

Source: The Hindu Newspaper



India braces for copper shortage due to delayed certifications

India faces a potential 90-day refined copper shortage after a Quality Control Order (QCO) barred imports without BIS certification. With Japan supplying 80% of imports, delays in certification are disrupting the supply chain. The shortage could escalate costs and stall production in sectors like electrical wires. Domestic producers like Hindalco and Vedanta remain the primary BIS-certified suppliers.

Source: The Indian Express



Cyclone Fengal highlights lapses in aviation safety

Cyclone Fengal revealed significant flaws at Chennai airport and deficiencies in pilot training. An Indigo flight narrowly avoided disaster due to inadequate infrastructure and adverse weather handling. Experts call for stricter DGCA monitoring, enhanced simulator training, and compliance with cockpit hours to ensure aviation safety.

Source: The Hindu Newspaper



LDF protests lack of disaster aid for Wayanad

The LDF staged protests over federal inaction on Wayanad disaster relief, accusing the Centre of neglecting constitutional responsibilities to fund disaster recovery.

Source: The Hindu Newspaper



Gaza conflict raises concerns over global order

Navtej Sarna and Trita Parsi debate Israel's Gaza offensive and its implications for global governance. They highlight U.S. policy shifts, UN Security Council paralysis, and the erosion of international law. The discussion underscores the need for systemic reform and questions Israel's accountability amid humanitarian crises.

Source: The Hindu Newspaper



14 Indian fishermen detained by Sri Lanka

The Sri Lankan Navy arrested 14 fishermen for allegedly crossing the maritime boundary in the Palk Bay. Tamil Nadu's fisher associations demand a permanent resolution to frequent arrests.

Source: The Hindu Newspaper

India holds developed nations accountable for climate

India, at the ICJ, criticized developed countries for exploiting global carbon budgets and failing on climate finance, urging equitable responsibility to tackle climate change.

Source: The Hindu Newspaper

Kuki-Zo forum demands separate administration

After burying 12 youths killed in violence, the Kuki-Zo forum called for a separate administration under the Constitution, citing subjugation fears.

Source: The Hindu Newspaper

Quick Learn Dose: PROBA-3 Mission



Why in News?

The **PROBA-3 mission**, launched by ISRO's **PSLV-C59** on December 5, 2024, is a European Space Agency (ESA) initiative to study the Sun's corona. It introduces **precision formation flying**, where two satellites operate in tandem to mimic a solar eclipse, enabling detailed solar observations.

Key Highlights of the PROBA-3 Mission

1. Mission Objectives:

- Study the Sun's **corona**, which is difficult to observe due to the Sun's brightness.
- Provide up to **6 hours of eclipse-like conditions**, a major improvement over natural eclipses that last only 10 minutes.

2. Technological Innovations:

- Precision Formation Flying:** Two satellites will maintain a fixed configuration of up to **150 meters apart**, autonomously aligning to block sunlight.

• Instruments:

- ASPIICS (Coronagraph):** Observes the corona by blocking the Sun's light.
- DARA:** Measures the Sun's total energy output (solar irradiance).
- 3DEES:** Monitors Earth's radiation belts for space weather data.

3. Orbital Details:

- The satellites are in a **highly elliptical orbit**: Perigee of 600 km, Apogee of 60,530 km, and an inclination of 59°.

4. Significance:

- Enhance understanding of **space weather phenomena**, such as solar storms and coronal mass ejections (CMEs), which affect satellite communications, navigation, and power grids.
- Contribute to global solar research by replicating stable solar eclipse conditions.

About PSLV-C59 and its Importance

1. PSLV Overview:

- Known as ISRO's "workhorse," PSLV is a third-generation launch vehicle with over **50 successful missions** since 1994.
- Specializes in launching satellites into polar and low Earth orbits.

2. Configuration:

- PSLV-XL variant used for PROBA-3, capable of lifting **1,750 kg to Sun-Synchronous Orbit (SSO)** or **3,800 kg to Low Earth Orbit (LEO)**.

3. Notable Past Missions:

- Chandrayaan-1 (2008) and Mars Orbiter Mission (2013).
- Aditya-L1 (2023) for solar studies

4. Commercial Impact:

- Part of NewSpace India Limited (NSIL), leveraging ISRO's capabilities for international collaborations like the ESA's PROBA-3.

Significance of Solar Studies

1. Scientific Insights:

- Understanding the corona helps predict solar events like **CMEs**, reducing risks to Earth's satellite operations and power grids.
- Advancing astrophysical research into the Sun's behavior.

2. Global Relevance:

- Contributes to collaborative space science under ESA-ISRO partnerships.
- Supports advancements in precision satellite coordination for future missions.

The PROBA-3 mission exemplifies cutting-edge space research and marks a significant milestone in India's space collaboration efforts, furthering its reputation as a global space power.

Source: The Indian Express