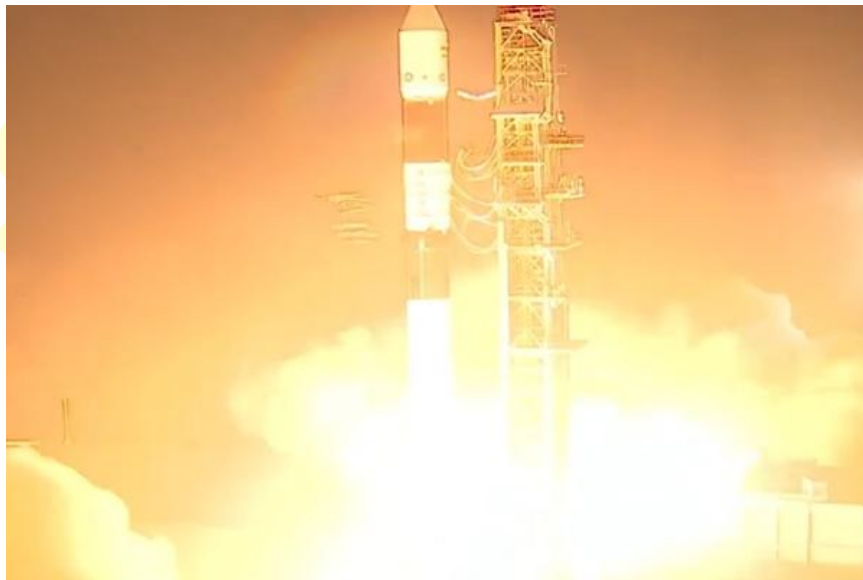


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SpaDeX And 24 Payloads

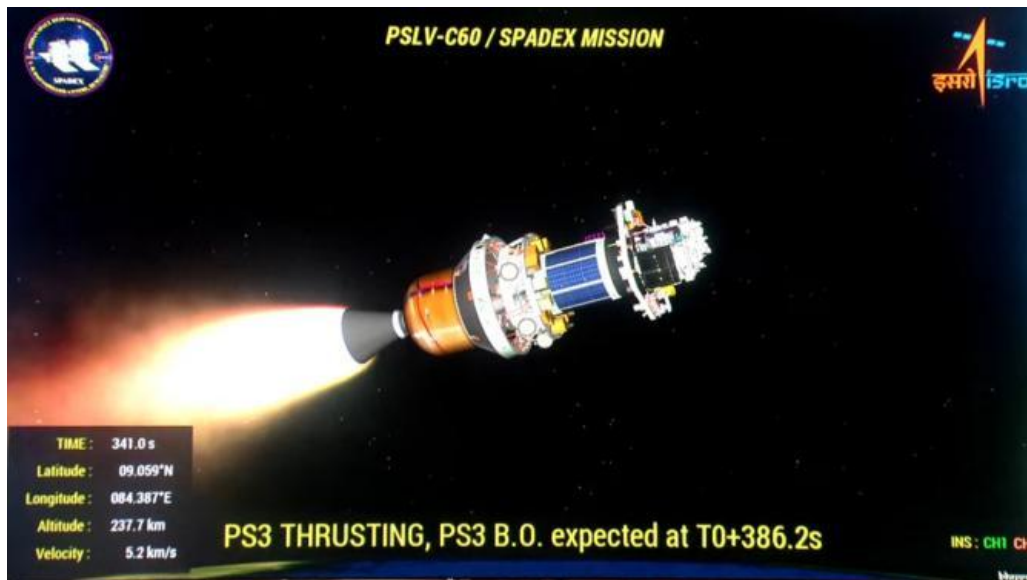
- **Indian Space Research Organisation (ISRO)** successfully launched the ambitious **Space Docking Experiment (SpaDeX)** mission tonight along with 24 experiments packed in **with the launch vehicle**.
- The **Polar Satellite Launch Vehicle with the two, 220 kilogram each**, satellites lifted off from the Satish Dhawan Space Centre in Sriharikota in a text-book launch. Earlier, the lift-off was **delayed by just two minutes** to avoid collision with other satellites in the same orbit above Earth.



- The two spacecraft will now be directed **towards achieving space docking** in the next 10 days likely on January 7.
- **SpaDeX aims to demonstrate advanced** in-space docking technology, a crucial capability for future missions, including lunar expeditions and the **Bharatiya Antariksh Station (BAS)**. The two spacecraft—**SDX01 (the Chaser)** and **SDX02 (the Target)** are set to be deployed into low Earth orbit with a small relative velocity between them.
- Managed by the **ISRO Telemetry, Tracking and Command Network (ISTRAC)**, initially, they will drift apart to a distance of **approximately 10-15 kilometers**.

Once this distance is reached, the drift will be arrested, and onboard systems will undergo thorough health checks.

- After confirming system functionality, the Chaser will begin its approach toward the Target satellite in carefully controlled increments.



- **The proximity with the target will be reduced stepwise:** first to about 5 kilometers, then to 1.5 kilometers, and ultimately leading to docking. This meticulous approach ensures that both satellites are launched separately but come together in a controlled manner.
- Each satellite is **equipped with advanced payloads, including an imaging system** and a radiation monitoring device designed to measure electron and proton radiation levels in space. This data is essential for future human spaceflight missions. The SpaDeX mission represents a critical step in advancing India's capabilities in orbital docking.
- Successful completion of this mission will **enhance ISRO's ability to conduct complex operations** in space and lay the groundwork for future interplanetary missions.

Kaamya Karthikeyan

- **Kaamya Karthikeyan, a 17-year-old student** from Navy Children School in Mumbai, has etched her name in history by becoming the **youngest female in the world to conquer the Seven Summits.**
- Kaamya, an avid adventurer since her childhood, completed this prestigious feat by summiting **Mount Vinson in Antarctica** on December 24, 2024. This accomplishment highlights her determination, resilience, and passion for

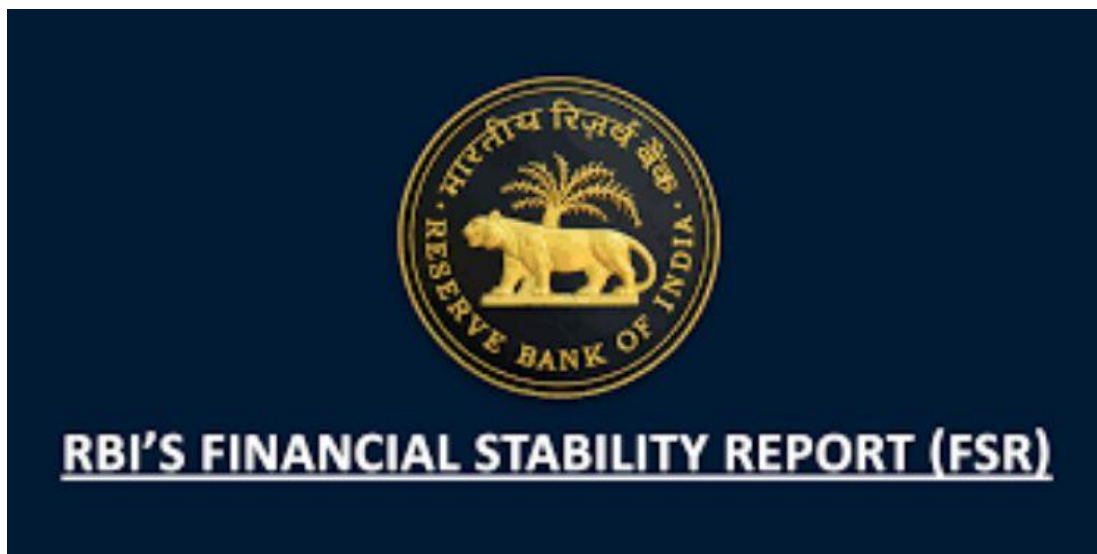
mountaineering. Kaamya Karthikeyan was sixteen years old when she scaled Mount Everest.



- **She said she was 7 when she took her first trek in Uttarakhand.** Her outstanding accomplishments have not only earned her the **Pradhan Mantri Rashtriya Bal Shakti Puraskar, India's highest national honour for young achievers** in 2021 but also accolades from Prime Minister Narendra Modi in his Mann-ki-Baat.
- Africa: Mount Kilimanjaro (Tanzania)
- Europe: Mount Elbrus (Russia)
- Australia: Mount Kosciuszko (Australia)
- South America: Mount Aconcagua (Argentina)
- North America: Mount Denali (USA)
- Asia: Mount Everest (Nepal)
- Antarctica: Mount Vinson (Antarctica)

RBI Financial Stability Report

- Reserve Bank of India (RBI) has released its **Financial Stability Report (FSR) for December 2024**, providing a comprehensive analysis of the Indian financial system's health. The **FSR is published biannually**, typically in June and December, offering insights into the stability and resilience of the financial sector.



- Key Highlights from the RBI Financial Stability Report, December 2024
- **Asset Quality of Banks:** The gross non-performing assets (NPAs) ratio of Indian banks has declined to a 12-year low of 2.6% as of September 2024. This improvement is attributed to recoveries, write-offs of legacy bad loans, and a reduction in the growth of bad assets.
- **Projections for NPAs:** The report projects that the gross bad loan ratio may rise to 3% by March 2026 under a baseline scenario, and could reach up to 5.3% under high-risk scenarios. Despite these potential increases, the RBI assures that no bank is expected to fall below the minimum capital requirement of 9% even in adverse conditions.



- **Economic Growth Forecast:** The RBI anticipates a GDP growth rate of 6.6% for the fiscal year 2024-25, indicating a positive outlook for the Indian economy following a slowdown in the first half of the fiscal year.

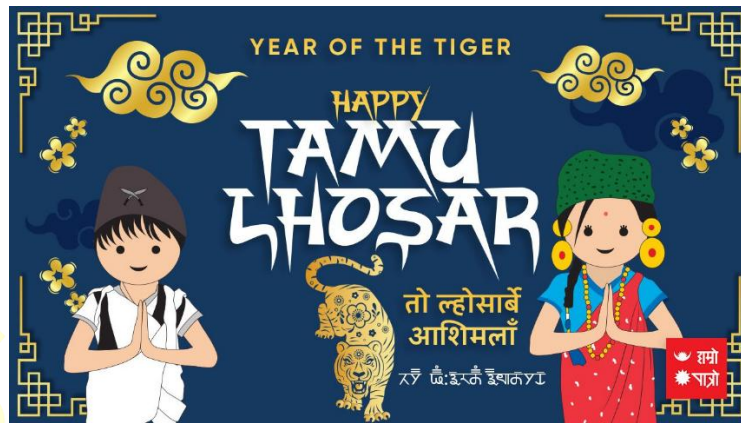
- **Liquidity Deficit:** The banking system is facing a significant liquidity deficit, which is expected to widen further in the upcoming quarter. As of December 23, 2024, the liquidity deficit stood at 2.43 trillion rupees, driven by tax outflows and the central bank's foreign exchange interventions. Market participants suggest that measures such as open market bond purchases and potential cuts in the cash reserve ratio (CRR) may be considered to address this issue.



- **Regulatory Compliance:** The report notes a 47% decline in monetary fines imposed by the RBI from June to November 2024, totaling nearly Rs 30 crore, compared to over Rs 57 crore in the same period the previous year. This decrease reflects improved regulatory compliance across banks and financial institutions.
- **Non-Banking Financial Companies (NBFCs):** The balance sheets of NBFCs have strengthened, with stress tests indicating that even under high-risk scenarios, their capital requirements would remain well above the minimum needed level.

Tamu Lhosar

- **Gurung community is marking Tamu Lhosar** on by bidding adieu to the year gone by. In the Gurung language, 'Lho' means year or age and 'Sar' denotes change.
- Members of the Gurung community mark the **festival by organising feasts and cultural programs**. Tamu Lhosar festival is observed with fanfare in districts of Nepal with a high Gurung population, including Lamjung, Gorkha, Tanahun, Syangja, Manang, Kaski and Parbat. It is the New Year among the Gurung community of Nepal's upper hilly and mountainous regions.



- During the Tamu Lhosar celebration in Tundikhel, **Gurung women wear** traditional ornaments on their heads, a Makhamali blouse, a conventional shawl called Ghalek, a traditional belly-binding cloth called Patuki and a saree.
- **Gurung men dress in cultural attire of a sleeveless vest called Bhoto**, a white shirt-like garment called **Bhangra** and a type of kilt called **Kachhad** and perform a vibrant cultural dance.



- The festival is celebrated on the **15th of the Nepali month Push (December-January)** and the night today is the longest of the year and then, the duration of the night is believed to gradually shorten. The government has announced a public holiday on the occasion of Tamu Lhosar.

Russia Ukraine Exchange Hundreds Of Prisoners

- **Russia and Ukraine have exchanged hundreds of prisoners of war** in a deal brokered by the United Arab Emirates (UAE). The Russian defence ministry said it had **swapped 150 Ukrainian soldiers held captive** for an equal number of Russian troops.
- **Ukrainian President Volodymyr Zelensky said 189 Ukrainians had returned home.** He added that those released included “defenders of Azovstal and Mariupol”, the Chernobyl nuclear power plant and Snake Island.



- In May 2022, Russia declared victory after a months-long battle to conquer the south-eastern **Ukrainian port city of Mariupol**, with the last fighters defending the city’s Azovstal steel plant having surrendered. Russian troops seized Chernobyl in the country’s north-west at the beginning of their invasion of Ukraine in February 2022, but later handed back control of the plant to its employees.



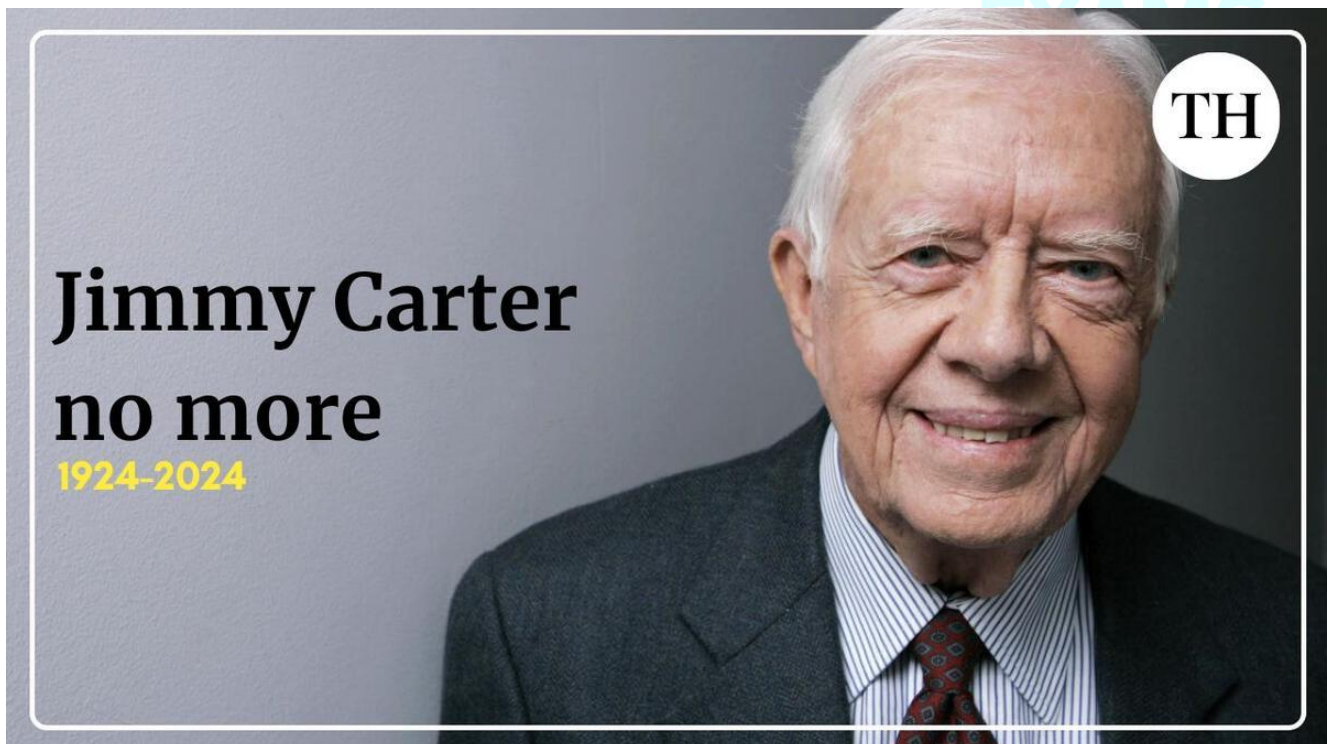
- **Snake Island was also seized in 2022 and the Ukrainian soldiers were taken prisoner, but later exchanged for Russian captives.** Zelensky said two civilians captured in **Mariupol were among dozens of soldiers, sergeants, border guards and officers released.**
- The Russian defence ministry today said, newly released Russian troops were in Belarus, an ally of Russia, and were being given medical assistance and the chance to contact their families.
- Before the latest swap, **there had been just 10 prisoner exchanges between** the countries this year, the lowest number since the full-scale invasion began. Ukraine said Moscow had released 3,956 people, including soldiers and civilians, in deals with Kyiv since the start of the conflict.

Jimmy Carter

- **Jimmy Carter, the 39th President of the United States,** passed away at the age of 100 in his hometown of Plains, Georgia. Known for his strong moral values, humanitarian work, and pivotal role in the **Camp David Accords, Carter's presidency faced challenges,** including an economic recession and the Iran hostage crisis.
- Despite his one-term presidency, Carter later gained respect for his global peace efforts, **winning the Nobel Peace Prize in 2002.** Elected as the 39th U.S. President in **1976 after defeating Gerald Ford.**
- His presidency faced economic challenges, including high inflation, interest rates, and the Iran hostage crisis.



- Key achievement: The **Camp David Accords (1978)**, securing peace between Israel and Egypt.
- **Iran Hostage Crisis** : In November 1979, 52 Americans were taken hostage in Tehran by Iranian revolutionaries. The crisis dominated his presidency, and the hostages were released only after Ronald Reagan assumed office in 1981.



- **Humanitarian Work Post-Presidency** : Founded the Carter Center in 1982, focusing on human rights, health, and democratic governance worldwide.
- **Awarded the Nobel Peace Prize in 2002** for his efforts in resolving international conflicts, promoting democracy, and advancing human rights.
- Played a significant role in mediating conflicts, including efforts in Bosnia, Haiti, Ethiopia, and North Korea. His diplomacy sometimes clashed with U.S. government policies, including his independent efforts with North Korea.

National Men's Handball Championship Title

- **Kerala defeated Chandigarh 34-31** to clinch their maiden Senior National Men's Handball Championship title. The tournament final took place yesterday in Changanassery, Kerala. **Kerala had reached the final for the first time**, edging out Services in the semi-finals, while Chandigarh secured their spot by defeating Indian Railways. **Kerala's Devendar was named Best Player** of the Championship, while Rahul received the award for Best Goalkeeper.



REVIEW QUESTIONS

1. Tamu Lhosar Celebrated By Gurung Community Is Marked On

- A. Diwali
- B. New year
- C. Basant Panchami
- D. Navratri

ANSWER: B

2. In Which Country Was The 50,000-year-old Baby Mammoth Yana Discovered

- A. Canada
- B. Greenland
- C. Alaska
- D. Russia

ANSWER: D

3. Which Article Of The Indian Constitution Mandates A Governor For Each State

- A. Article 153
- B. Article 155
- C. Article 159
- D. Article 174

ANSWER: A

4. What Is The Temperature That NASA's Parker Solar Probe Withstood While Flying Closer To The Sun

- A. 800°C
- B. 982°C
- C. 1050°C
- D. 1200°C

ANSWER: B

5. Koraput Kalajeera Rice Got GI Status, Is Cultivated In Which State

- A. Punjab
- B. Odisha
- C. Andhra Pradesh
- D. Uttar Pradesh

ANSWER: B

6. Which Country Has Become The Largest Investor In New Business Projects In Africa Between 2019 And 2023

- A. United Kingdom
- B. France
- C. UAE
- D. China

ANSWER: C

7. Which Airport Won The "Best Domestic Airport" Award At Travel Leisure India's Best Awards 2024

- A. Manohar International Airport
- B. Chhatrapati Shivaji Maharaj International Airport
- C. Kempegowda International Airport
- D. Netaji Subhas Chandra Bose International Airport

ANSWER: A

8. Green Crab, Is Native To Which Region

- A. Atlantic Ocean and Baltic Sea
- B. Iran and Kuwait
- C. Red Sea
- D. Antarctica

ANSWER: A

9. Upper Siang Hydropower Project Is Located In Which State

- A. Assam
- B. Manipur
- C. Mizoram
- D. Arunachal Pradesh

ANSWER: D

10. Archaeologists Discovered A 5,000-year-old Water Management System At Which Harappan Site

- A. Lothal
- B. Kalibangan
- C. Rakhigarhi
- D. Ropar

ANSWER: C

11. What Kind Of Pathogen Is Helicobacter Pylori

- A. Viral
- B. Bacterial
- C. Fungal
- D. Protozoa

ANSWER: B

12. Which Two Organizations Have Jointly Launched India's First Undergraduate Minor Programme In Quantum Technologies

- A. Ministry of Education and ISRO
- B. All India Council for Technical Education and National Quantum Mission
- C. IITs and DRDO
- D. National Institute of Technology (NIT) and Atomic Energy Commission

ANSWER: B

13. What Was Primary Pollutant Released Into The Black Sea During The Oil Spill

- A. Crude oil
- B. Chemical waste
- C. Diesel oil
- D. Mazut (heavy fuel oil)

ANSWER: D

14. Who Has Been Invited To Become An Honorary Cricket Member Of The Melbourne Cricket Club

- A. Rahul Dravid
- B. Virat Kohli
- C. Sachin Tendulkar
- D. M.S. Dhoni

ANSWER: C

15. Who Is The Target Audience For India's First Undergraduate Minor Programme In Quantum Technologies

- A. Ph.D. students in quantum physics
- B. High school students with an interest in quantum science
- C. Engineering students in their third or fourth semester
- D. Postgraduate students in technology

ANSWER: C

16. RBI's Decision To Link Prepaid Payment Instruments With UPI Aim To Enhance

- A. Digital currency adoption
- B. Payment interoperability and digital payment adoption
- C. ATM withdrawal limits
- D. Cross-border remittances

ANSWER: B

17. In 2024, Government Of India Bharat Ratna To How Many Individuals

- A. 3
- B. 4
- C. 5
- D. 6

ANSWER: C

18. Who Has Been Appointed As New Chairperson Of The National Accreditation Board For Testing And Calibration Laboratories

- A. Dr. Sandip Shah
- B. Dr. Ramesh Kumar
- C. Dr. Vinay Bhat
- D. Dr. Rajesh Sharma

ANSWER: A

19. In Which Year Rule Of Maximum 3 Bharat Ratna Awards In A Year Broken

- A. 1995
- B. 1999
- C. 2005
- D. 2010

ANSWER: B

20. United Nations Disengagement Observer Force Mission Was Established To Maintain Peace Between Which Forces

- A. Israel and Syria
- B. India and Pakistan
- C. Russia and Ukraine
- D. Iran and Israel

ANSWER: A