

1. **AI Kosha:** Recently, the Union government launched 'AI Kosha', a platform aimed at providing datasets for developing Artificial Intelligence (AI) models and tools using locally sourced data.
 - **About AI Kosha:** It is a platform for non-personal datasets to assist in AI model development.
 - At launch, it contains 316 datasets, mainly focused on creating or validating language translation tools for Indian languages.
 - **Limited datasets also include:** Telangana's open data initiative (health data, 2011 Census data) → Satellite imagery from Indian satellites → Meteorological and pollution data.
 - **IndiaAI Mission & Compute Capacity:** The IndiaAI Datasets Platform is one of the seven pillars of the IndiaAI Mission.
 - The Compute Capacity pillar provides pooled access to Graphics Processing Units (GPUs) for startups and academia to train and run AI models.
 - The government increased shared GPU capacity from 10,000 to 14,000 GPUs, with plans for quarterly expansion.
 - **Homegrown Foundational AI Model:** The government is supporting efforts to develop a foundational AI model for India, similar to China's DeepSeek.
2. **IFTAR:** March 7, 2025, is the first Friday of Ramzan, the Islamic holy month.
 - After observing **roza (ritual fast)** throughout the day, Muslims **break their fast with Iftar** during Ramzan.
 - **About Iftar or Iftari:** It is partaken at sunset, immediately before the Maghrib namaz (evening prayer) after a day-long fast.
 - It is one of the two meals during Ramzan, the other being sehri (suhoor), eaten before dawn.
 - **UNESCO Recognition:** In 2023, Iftar was inscribed on UNESCO's Representative List of Intangible Cultural Heritage of Humanity.
 - **About Ramzan or Ramadan:** "Ramadan" is the Arabic pronunciation.
 - "Ramzan" is the Persian pronunciation, popular in the Indian subcontinent.
 - Similarly, "Suhur" (Arabic) is known as "Sehri" in India.
3. **Taj Mahotsav 2025:** The 33rd edition of Taj Mahotsav was organized at Shilpgram, Agra from 18th February to 2nd March 2025.
 - **About Taj Mahotsav:** A 10-day cultural festival showcasing Indian art, crafts, music, dance, and cuisine.

- Organized annually at Shilpgram, Agra, celebrating the Mughal and Nawabi heritage of Uttar Pradesh.
 - Theme 2025:** 'Dharohar' – highlighting India's rich cultural heritage.
 - First started in **1992** to **promote local artisans** and Agra's traditional crafts.
 - Major Events in 2025:** Flower Show at Atal Garden → Garment Show featuring regional attire → "Our Heritage, Our Identity" cultural programs → Bird Watching at **Sur Sarovar** Bird Sanctuary.
 - Agra District:** Situated on the banks of the Yamuna River in western Uttar Pradesh. Bordered with Rajasthan and Madhya Pradesh.
 - Historical Significance:** **Founded by Sikandar Lodi in 1504 AD.** He shifted his capital from Delhi to Agra in 1504 AD.
 - Major Tourist Attractions:** Taj Mahal, Agra Fort, Fatehpur Sikri, Tomb of Itmad-ud-Daulah, Akbar's Tomb, Buland Darwaza (Lofty Gate), Moti Masjid, and Keetham Lake (Sur Sarovar Bird Sanctuary)
- 4. Pashu Aushadhi Initiative:** The government will open "Pashu Aushadhi" stores across India to provide affordable generic veterinary medicines to those engaged in animal husbandry and dairying.
- About Pashu Aushadhi Initiative:** The initiative aims to improve livestock health and reduce out-of-pocket expenses for farmers.
 - Based on Janaushadhi Kendras:** Conceptualized on the lines of Pradhan Mantri Bharatiya Janaushadhi Kendras (PMBJK), which provide affordable generic medicines for humans.
 - Over 10,300 PMBJKs are currently functional across the country.
 - Pashu Aushadhi Kendras will provide generic medicines for animals.
 - Implementation:** Pashu Aushadhi stores will be run by Cooperative societies & Pradhan Mantri Kisan Samridhi Kendras (PMKSK).
- 5. Fluoride Poisoning:** Sonbhadra district (Uttar Pradesh) is experiencing high levels of fluoride pollution in groundwater.
- About extent of contamination:** More than 2 lakh people in 276 villages are affected.
 - Groundwater fluoride levels in Kon, Bhabni, Myorpur, and Duddhi blocks are 5-6 times higher than the prescribed limit.

- **Health Impacts:** Causes weak and deformed bones → Children are born with disabilities → Elderly population struggles to walk due to skeletal issues.
- **NGT's Order & Implementation Issues:** National Green Tribunal (NGT) had directed action against fluoride contamination.
 - Local administration failed to implement measures effectively, forcing people to drink contaminated water.
- **About Fluoride:** A non-biodegradable, long-term pollutant found in minerals, soil, water, and air, which released into the environment by **burning coal bricks**.
- **Toxicity & Recommended Limits:** Highly toxic in excessive amounts. WHO's safe limit for fluoride in drinking water: 1.5 mg/liter.
- **Effects of Fluoride:**
 - **Benefits (in adequate amounts):** Prevents tooth decay → aids in tooth enamel formation → prevents bone mineral loss.
 - **Harmful Effects (in excessive amounts):** Weakens bones & joints → causes skeletal and dental fluorosis → adversely affects wildlife.

6. Inland Waterways Authority of India (IWAI): The Inland Waterways Authority of India (IWAI) under the Ministry of Ports, Shipping, and Waterways signed an MoU with the Government of Jammu and Kashmir (J&K) to boost **river cruise tourism on three National Waterways** in J&K.

- **About:** The Inland Waterways Authority of India (IWAI) is an autonomous organization that was established on October 27, 1986, in accordance with the **Inland Waterways Authority of India Act, 1985**.
- **Primary responsibility:** The **development, maintenance, and regulation** of waterways that have been designated as National Waterways (NWs) under the National Waterways Act of 2016.
 - IWAI carries out the **implementation of policy guidelines** and directives issued by the Inland Water Transport (IWT) Wing.
- **Headquarter:** Noida, Uttar Pradesh.
- **Regional offices:** Guwahati (Assam), Patna (Bihar), Kochi (Kerala), Bhubaneswar (Odisha) and Kolkata (West Bengal).

- **Nodal Ministry:** Ministry of Ports, Shipping and Waterways.
- **Jammu & Kashmir has three declared national waterways:** River Chenab (NW-26) → River Jhelum (NW-49) → River Ravi (NW-84).

7. New Credit Assessment Model for MSMEs: Union Finance Minister and MoS, recently launched the New Credit Assessment Model for MSMEs in Vishakhapatnam as announced in Union Budget 2024-25.

- **About New Credit Assessment Model for MSMEs:** Public Sector Banks (PSBs) will develop in-house credit assessment capability instead of relying on external assessment.
- **Objective:** Assess MSMEs for credit based on digital footprints instead of traditional asset or turnover-based criteria.
- **Automated Loan Appraisal:** Uses digitally fetched and verifiable data for objective decision-making in loan applications.
- **Applies to:** Existing to Bank (ETB) MSME borrowers & New to Bank (NTB) MSME borrowers.

8. Bio-economy: The government of India recently highlighted India's **10-fold Bioeconomy growth** in the last decade while addressing **PBBCON-2025 Conference in Jammu**.

- **About Bio-economy:** An economic system that uses renewable biological resources to create products, services, and energy. It aims to reduce reliance on fossil fuels and GHGs emissions.
- **About India's Bio-economy:** Grew by 13% (2014 - 2024).
 - **J&K as a hub for Agri-Biotech Innovation:** Aroma Mission & Floriculture Revolution boosting local farmers' income.
- **Key achievements in 2024:** World's first HPV vaccine → Breakthrough antibiotic 'Nafithromycin' → Pioneering gene therapy experiment for Hemophilia.
- **Mission Suraksha:** Development of indigenous DNA-based vaccines during COVID-19.
 - India's global biotech rankings: 3rd in Asia-Pacific and 12th globally in bio-manufacturing.
- **New BioE3 Policy:** Focuses on bio-manufacturing and bio-foundries for biotech sector growth.
- **Global Innovation Index rank:** From 80th (2014) to 39th (2024).
- **Startup boom:** From 50 biotech startups (2014) to ~9,000 (2024).

- 9. On-Board Oxygen Generating System (OBOGS):** The Defence Bio-Engineering & Electro Medical Laboratory (DEBEL) under DRDO successfully conducted high-altitude trials of the Indigenous On-Board Oxygen Generating System (OBOGS)-based Integrated Life Support System (ILSS) for the LCA Tejas aircraft.
- **About:** OBOGS-based ILSS is a cutting-edge system designed to generate and regulate breathable oxygen for pilots during flight, eliminating dependence on traditional liquid oxygen cylinder-based systems.
 - The ILSS met stringent aeromedical standards under various flight conditions, including taxiing, takeoff, cruise, G-turns, rejoin approach, and landing.
 - **Performance evaluations covered:** Oxygen concentration and demand breathing → Availability of 100% oxygen → Aerobic maneuvers and full functional testing of the Anti-G Valve and Breathing Oxygen System (BOS).
 - **The ILSS integrates 10 Line Replaceable Units (LRUs), including:** Low-Pressure Breathing Regulator, BOS, Emergency Oxygen System, Oxygen Sensor, Anti-G Valve, and other advanced components.
- 10. Doomsday Clock:** Germany's Chancellor-to-be **Friedrich Merz** referred to the **Doomsday Clock**, stating that it was **"five minutes to midnight for Europe,"** highlighting deteriorating relations between the **United States and its European allies**.
- He urged **Europeans to become self-reliant** in response to geopolitical challenges.
 - **About:** The Doomsday Clock is a symbolic representation of how close humanity is to a global catastrophe (nuclear war, climate change, emerging threats).
 - **Concept Origin:** Imagined by the **Bulletin of Atomic Scientists** in **1947** to assess the probability of nuclear destruction.
 - **Founders:** Established by **Albert Einstein, J. Robert Oppenheimer, Leo Szilard**, and others who worked on atomic weapons.
 - **Purpose:** Created to inform policymakers, scientists, and the public about existential threats.
 - **Design:** The clock's first design, showing the **minute hand nearing midnight**, was created by artist **Martyl Langdorf** in 1947. It was redesigned by Michael Bierut in 2007.
 - **Current Position of the Clock:** Announced every January by the Bulletin of Atomic Scientists.
 - In **2025**, the clock stands at **89 seconds to midnight**, the closest ever to global catastrophe.