

8.Short News

1. National Makhana Board

The Board held its first meeting and approved a ₹476-crore scheme to modernize the makhana sector (2025-26 to 2030-31).

About the Board

Launch- 15th September 2025 in Bihar.

Purpose- A dedicated body to support makhana farmers and the industry.

Objectives- Boost research, seed production, and technology. Enhance processing, branding, and exports. Improve farmer livelihoods.

Functions- Managing seed requirements. Training farmers on harvesting and post-harvest practices. Building infrastructure for grading, drying, and popping.

Makhana (Fox Nut)

Source- Dried edible seed of *Euryale ferox* (aquatic plant).

Nutritional Value- Low fat, rich in nutrients; used in medicines and snacks.

Cultivation- Requires stagnant water (4-6 ft deep), temps of 20-35°C, and high humidity.

Geography- Bihar produces ~90% of India's makhana (Mithila Makhana has a GI Tag).

2. International Fund for Agricultural Development (IFAD)

India showcased rural development achievements at the IFAD-India Day in Rome.

IFAD

Type- Specialized United Nations agency.

Goal- Exclusively focused on reducing poverty and hunger in rural areas of developing countries.

HQ- Rome, Italy (Founded in 1977).

Work- Provides low-interest loans and grants for rural projects.

India & IFAD- India is a founding member and major contributor.

Collaboration- 48 years of partnership covering 36 major projects.

Global Role- India shares its expertise (like women's collectives) with other Global South nations via this platform.

3. PMGKY Insurance Package Beneficiaries

Supreme Court ruled that PMGKY insurance benefits apply to both public and private medical staff who died during COVID-19 duties.

Key Ruling- States effectively requisitioned all doctors during the pandemic emergency. Claims must be decided case-by-case with proof that death occurred during COVID duty.

About the Scheme

Launch- March 2020 as part of a relief package.

Coverage- ₹50 lakh for death or accident while treating COVID patients.

Beneficiaries- Doctors, nurses, paramedics, ASHA workers, and sanitation staff in government or requisitioned private facilities.

4. Project Suncatcher (Google)

Google's initiative to build solar-powered data centers in space by 2027.

Technology- Uses Tensor Processing Units (TPUs) and laser links; chips have passed radiation tests.

Space Data Centers

Environment- Reduces water and electricity use on Earth.

Reliability- Constant solar power and no risk of natural disasters.

Data Sovereignty- By operating in space (under the Outer Space Treaty), it can host clients from multiple countries without strictly binding local data laws.

Challenges

Cost- Extremely high launch and operational expenses.

Latency- Data transmission delays due to distance.

Maintenance- Difficult to repair hardware in space.

Similar Projects

Project Stargate- OpenAI's plan for solar system-wide data centers.

Lonestar Data Holdings- Sent a mini data center to the Moon.

5. Rhynchosaurus Discovery

Paleontologists in Brazil found the smallest/youngest rhynchosaur hatchling ever recorded.

The Fossil- Identified as *Macrocephalosaurus mariensis*. Skull is under 2.5 cm; microtomography (3D X-ray) showed unworn teeth, implying it died shortly after birth.

About Rhynchosaurus

Type- Extinct, herbivorous, reptile-like creatures.

Era- Lived during the Triassic Period across Pangaea.

Features- Robust skulls and specialized teeth for grinding tough plants.

Triassic Period (252-201 million years ago)- First period of the Mesozoic Era. Followed the Permian-Triassic mass extinction. Saw the rise of the first dinosaurs and mammals.

6. MAVEN Mission

NASA lost contact with the MAVEN spacecraft after 10+ years in Mars orbit.

MAVEN

Full Name- Mars Atmosphere and Volatile Evolution.

Goal- To study Mars' upper atmosphere and ionosphere.

Launch- 2013 (Entered orbit in 2014).

Key Achievements- Confirmed that atmospheric loss to space turned Mars from a wet planet to a dry one. Ruled out terraforming Mars using existing CO₂ (as most has escaped). Acts as a communication relay for rovers like Curiosity and Perseverance.

7. National Energy Conservation Day 2025

Observed on December 14; President presented the National Energy Conservation Awards (NECA)

The Awards (NECA)

Agency- Bureau of Energy Efficiency (BEE) under the Ministry of Power.

Purpose- Recognizes industries and institutions for reducing energy consumption and innovating efficiency.

2025 Focus- Included awards for social media influencers promoting conservation the Day Observed annually on December 14 since 1991.

About Bureau of Energy Efficiency (BEE)

Established- 2002 under the Energy Conservation Act, 2001.

Role- Formulates policies (like Star Labelling) to reduce India's energy intensity.

8. FDA Approves Two Oral Therapies to Treat Gonorrhea

The US FDA has approved two new oral drugs to treat Gonorrhea.

About the Disease

Cause- A sexually transmitted infection (STI) caused by the bacterium *Neisseria gonorrhoeae*.

Nature- It is preventable and curable, but can be passed from mother to baby.

Global Burden- Estimated 82.4 million new cases in 2020.

Antimicrobial Resistance- The bacteria is becoming resistant to existing antibiotics, raising the risk of the disease becoming untreatable. New therapies are crucial to combat this resistance.

9. Ponduru Khadi (GI Tag)

Ponduru Khadi from Srikakulam district, Andhra Pradesh has been awarded the Geographical Indication (GI) tag.

Key Features

Material- Handwoven fabric made from a specific local hill-variety of short-staple cotton.

Sustainability- The cotton is pest-resistant, allowing for chemical-free farming and eco-friendly production.

About GI Tag- It is a certification protecting products with specific geographical origins and qualities, governed in India by the GI Act of 1999.

10. MahaCrimeOS AI

Microsoft launched the statewide rollout of this AI-powered platform for the Maharashtra Police.

Functionality

Multimodal Input- Can process complaints in any format (PDF, audio, handwritten notes, images) and language.

Speed- Automates analysis and profiles suspects rapidly using AI.

About MARVEL (Maharashtra Research and Vigilance for Enhanced Law Enforcement)- A special government entity (SPV) created in 2024.

Significance- Makes Maharashtra the first state in India to set up an independent AI body specifically for law enforcement.

11. Lunarcrete

Researchers are developing this material for building future habitats on the Moon.

Definition- An umbrella term for concrete made on the Moon using Lunar Regolith (Moon soil) instead of Earth materials (sand/gravel).

Purpose- ISRU (In-Situ Resource Utilisation) Enables building roads, landing pads, and bases without the huge cost of transporting materials from Earth.

Protection- Offers shielding against radiation and micrometeorites for astronauts.

Relevance- Crucial for upcoming long-term missions like the Artemis program.

