

Manthan HEADLINES



English

Weekly Compilation [06th - 11th October, 2025]





News

RBI constitutes 6-member Payments Regulatory Board

Context

• RBI has constituted a six-member Payments Regulatory Board (PRB) to oversee India's payment systems.

About PRB

- Replaces the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS).
- Authority derived from the Payment and Settlement Systems Act, 2007.
- Supported by RBI's Department of Payment and Settlement Systems (DPSS), which reports directly to PRB.

Composition

- It is chaired by the RBI Governor.
- It includes two RBI officials: Deputy Governor and Executive Director for **Payment Systems.**
- Three Central Government nominees: Secretaries of Financial Services, Electronics & IT, and former Telecom Secretary.
- Decisions by majority vote, chairperson or deputy governor has casting vote in tie.
- Must meet at least twice a year; decisions can also be made via circulation.

Functions

• Regulates and supervises all payment systems: electronic, non-electronic, domestic, and cross-border.









After NISAR, ISRO gearing up for next U.S. collaboration with BlueBird communications satellite launch

Context

• ISRO to launch the Block 2 BlueBird communication satellite in the next 3-4 months.

About BlueBird Communications Satellite

- Developed by: AST SpaceMobile, a U.S.-based company.
- Weight: 6,500 kg.
- Expected to arrive in India by September 2025.
- Launch Vehicle: LVM3 (formerly GSLV Mk III), ISRO's most powerful launcher.
- Purpose: To enhance global mobile broadband connectivity directly via satellites.

Significance

- Marks growing international collaboration in satellite launch services.
- Showcases ISRO's capability to launch heavy foreign satellites using LVM3.
- internet and communication Supports space-based services worldwide.





ISRO organizes Space Analog Mission in Tso Kar Valley, Ladakh

Context

 Protoplanet, a Bengaluru-based space science organisation, has launched the Human Outer Planet Exploration (HOPE) initiative from Tso Kar, Ladakh.

About HOPE

- A high-altitude research station simulating deep space environments on Earth.
- Objective: To prepare for future manned missions to the Moon and possibly Mars.

Key Features

- Isolation Missions: 10-day missions undertaken by selected crew members.
- Research Focus:
 - o Physiological adaptation.
 - Psychological resilience.
 - Epigenetic changes due to extreme environments.
- Site Selection: Tso Kar's environment mimics extraterrestrial conditions; site studied for 9 years before setup.

Significance

- Aids in understanding human survivability and performance in hostile, spacelike conditions.
- It contributes to the design and planning of long-duration space missions.

Source: ISRO





A heritage train chugs again in MP: Story of historic Patalpani-Kalakund line

Context

 Western Railway has resumed operations of the 9.5 km metre-gauge heritage train on the Patalpani-Kalakund line, Madhya Pradesh.

About the Line

- Location: Part of the Dr. Ambedkar Nagar (Mhow)-Khandwa section.
- Terrain: Passes through the hilly regions of central Madhya Pradesh.
- Gauge: Metre-gauge railway.

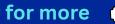
Historical Background

- Proposed by: Maharaja Tukoji Rao Holkar II (Reign: 1844-1886).
- Purpose: To connect Indore to Khandwa via rail.
- Completion: 1878.
- Name: Originally known as Holkar State Railways.
- Merger: Integrated with Rajputana-Malwa Railway in 1881-82.

Significance

- One of the oldest operational railway lines in India.
- A heritage route attracting tourism and preserving colonial-era railway architecture.
- Offers scenic views and showcases engineering marvels in hilly terrain.









Webb Detects Biosignature Gas Phosphine in **Atmosphere of Ancient Brown Dwarf**

Context

• Astronomers detected phosphine traces in the atmosphere of brown dwarf Wolf 1130C, located several light-years from Earth.

About Phosphine (PH₃)

- Composed of three hydrogen atoms and one phosphorus atom.
- On Earth, produced mainly by microbial activity in swamps and animal intestines.
- 2020: Venus triggered Detection on debates about possible extraterrestrial life.
- Also found on Jupiter and Saturn, indicating non-biological formation in uninhabitable conditions.

Scientific Significance

- Helps understand natural formation mechanisms of phosphine.
- · Aids in refining the search for biosignatures (possible hints of life) on other planets.

About Brown Dwarfs

- Celestial bodies with traits between stars and planets.
- Formed from collapsing gas clouds, like stars, but lack sufficient mass for hydrogen fusion.
- Known as "failed stars" due to their inability to shine like stars.
- Have planet-like atmospheres with molecules such as H₂O and clouds.
- Can be up to 70 times the mass of Jupiter.

Source: NYT







News

Centre plans National Camel Mission to save India's dwindling desert icon

Context

• The Ministry of Fisheries, Animal Husbandry and Dairying plans to launch the National Camel Sustainability Initiative (NCSI) to address the declining camel population in India.

About the Issue

- India's camel population is declining rapidly, especially in Rajasthan and Gujarat.
- Population trends (Livestock Census): 1977 ~11 lakh, 2013 4 lakh, 2019 2.52 lakh
- Aprrox. 90% of India's camels are found in Rajasthan and Gujarat.
- The NCSI will involve coordination among multiple ministries Animal Husbandry, Environment, Rural Development, Tourism, and State Governments.

Camels in India

- Species: Dromedary Camel (Camelus dromedarius) single-humped, adapted to hot desert conditions.
- State Symbol: Camel is one of the State Animals of Rajasthan (along with Chinkara).

Economic & Cultural Importance

- Transport & Labour: Used for carrying goods, ploughing, and desert transport.
- Milk Production: Camel milk is nutritious and has growing market demand.
- Tourism: Popular for camel safaris in Rajasthan.
- Defence Use: Employed by the Border Security Force (BSF) for desert patrols.

Source: IE





Stay Tuned!