

May - 14

TNPSC BITS

- ❖ The Centre for Innovation Incubation Research and Entrepreneurship (C-i2 RE) was inaugurated in Telangana.
- ❖ The Centre launched the SAKSHAM (Stimulating Advanced Knowledge for Sustainable Health Management), a Learning Management Information System.
 - It is a dedicated and unified platform for providing online training and medical education to all health professionals in the country.
- ❖ The Reserve Bank's gold reserves increased by 34.22 tonne year-on-year to reach 794.64 tonne at March-end 2023.
 - RBI held 760.42 metric tonnes of gold (including gold deposits of 11.08 metric tonnes) at the March-end of 2022.
- ❖ The world's largest and first franchise-based chess league is to be held in Dubai.

TAMIL NADU

Statues of late freedom fighters

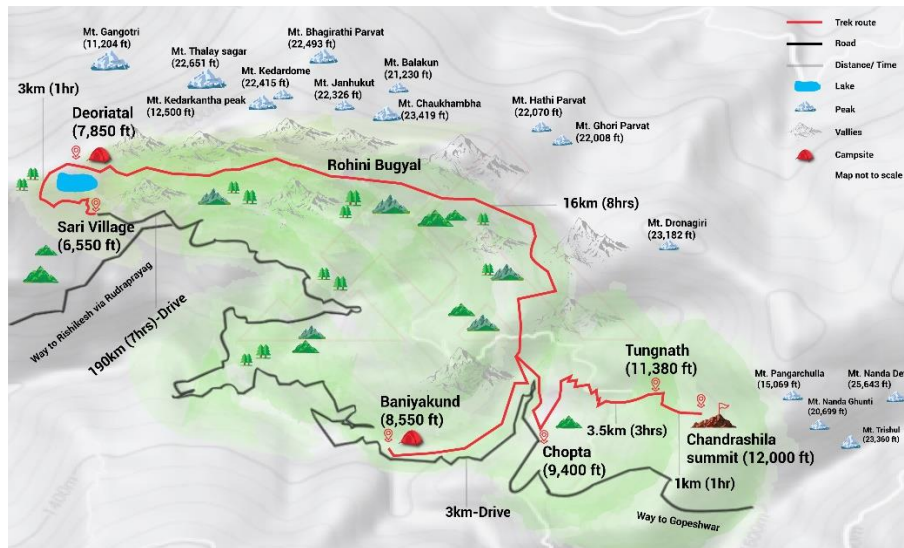


- ❖ Tamil Nadu Chief Minister unveiled the statues of late freedom fighter V.O. Chidambaranar, late social reformer Moovalur Ramamirtham Ammaiyar and late doctor-legislator Muthu Lakshmi Reddy.
- ❖ V.O. Chidambaranar's statue has been installed at V.O.C. Park in Coimbatore.

- ❖ Moovalur Ramamirtham Ammaiyar's statue was opened in Mayiladuthurai.
- ❖ Dr. Muthu Lakshmi Reddy's statue was located in Pudukkottai.
- ❖ He also unveiled the foundation stones for the construction of memorial hall of former Chief Minister of then Madras Presidency P. Subbarayan.

NATIONAL

Tungnath temple

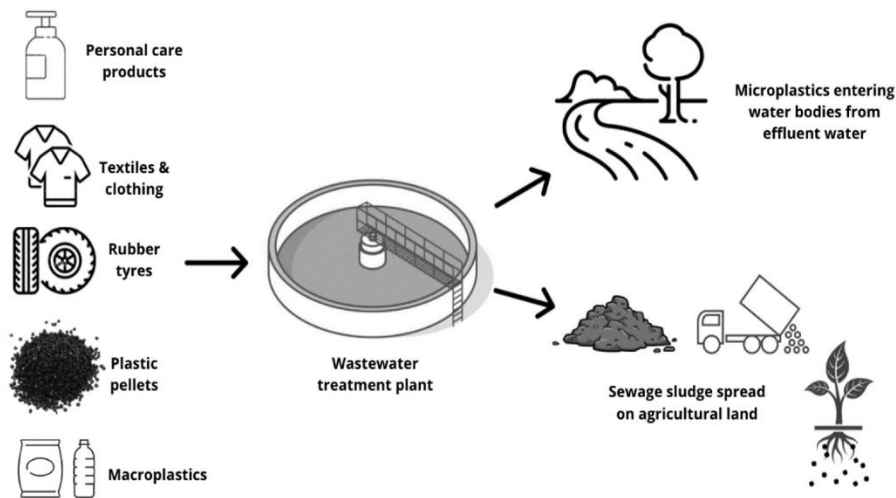


- ❖ Tungnath temple, built by Pandavas, is declared as monuments of national importance.
- ❖ Tungnath is the highest of the five Panch Kedar temples in the district of Rudra prayag, Uttarakhand.
- ❖ It is believed that, the Pandavas built temples in all these five places to worship Shiva and atone for their sins.

STP sludge as Fertilizer

- ❖ Indian sewage treatment plants (STP) found that most of its sludges had “high potential” for use as fertilizer.
- ❖ They required treatment before it could be used unrestricted in farms, or as a potential biofuel.
- ❖ A first of its kind analysis of the sludge found in STPs which set up to treat polluted water from the Ganga.
- ❖ IIT Roorkee found that most of the sludge analysed after drying fell into the class B category.

- ❖ Nitrogen and phosphorous levels were higher than those recommended by India's fertilizer standards (FCO, 2009).
- ❖ However, potassium levels of some sludges were less than recommended.
- ❖ The total organic carbon was more than 16%, again higher than FCO recommendations.
- ❖ But the degree of pathogens as well as heavy metal contamination was above the recommended fertilizer standards.
- ❖ Treated sludge can be classified as class A or class B — as per the standards of the United States Environment Protection Agency.
- ❖ The class A being safe is to be disposed of in the open and useful as organic fertilizer.
- ❖ Class B means that the sludge can be used in “restricted” agricultural applications.
- ❖ India doesn't yet have standards classifying sludge as class A or B.



INTERNATIONAL

EU's carbon border tax

- ❖ The 27-member European Union will bring another ambitious and first-of-its-kind policy, the Carbon Border Adjustment Mechanism (CBAM).
- ❖ It is aimed at levelling the playing field for EU and non-EU manufacturers and spurring trading partners to adopt carbon pricing regimes as a critical approach to the climate fight.
- ❖ European Parliament lawmakers reached a political deal on the carbon border tax in December last year.

- ❖ But India, along with China, Brazil, and South Africa opposed the plan at the 27th edition of the Conference of Parties (COP27) climate summit in Sharm El Sheikh.
- ❖ The CBAM plans to impose a tariff on a set of carbon-intensive imports.
- ❖ It will have to be paid by EU importers and companies who export such goods to EU countries.



SCIENCE AND TECHNOLOGY

TROPICS Mission

LAUNCH PROVIDER Rocket Lab	CUSTOMER NASA VADR, MIT	LAUNCH WINDOW MAY 08 01:00Z UTC 13:00 NZST 2023 MAY 07 21:00 EDT 19:00 PDT (2 hour extended launch window)
MISSION TYPE Earth observation, technology	PAYLOADS(2) TROPICS (#3, #5) (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of SmallSats) <small>TROPICS is a mission that uses a group of CubeSats to take rapid refresh microwave measurements over the tropics. These measurements will provide valuable information about the thermodynamics of the troposphere and precipitation structure for storm systems at the mesoscale and synoptic scale throughout the entire storm lifecycle. The CubeSats will host high-performance radiometers that will scan across the satellite track at 30 RPM to provide temperature and water vapor profiles, precipitation measurements, and cloud ice measurements.</small>	LAUNCH VEHICLE ELECTRON Curie FLIGHT #36 Height 18 m Diameter 1.2 m LV mass ~13 tons
LAUNCH SPACEPORT Launch Complex 1 – Pad B, Mahia Peninsula, New Zealand	DESTINATION Low Earth Orbit (i LEO) Altitude: 550 km Inclination 32°	ENGINE BLOCKS STAGE/ENGINES 1) 9 x Rutherford (SEA LEVEL) 2) 1 x Rutherford (VACUUM) PROPELLANTS LOX / RP-1 MAX THRUST 225 kN 26 kN
		KICKSTAGE STAGE/ENGINES 1 x Curie (VACUUM) PROPELLANTS bi-propellant (Liquid) MAX THRUST 120 NEWTONS
		RECOVERY LAUNCH VEHICLE IS EXPENDABLE

- ❖ NASA launched two small satellites designed to track tropical cyclones in real-time from a base in New Zealand.



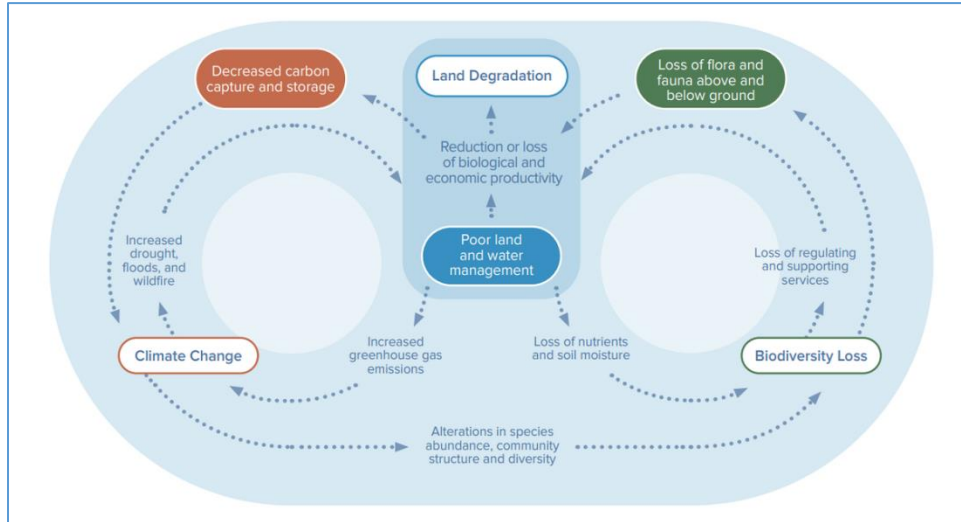
- ❖ The project, called the TROPICS mission, has the potential to improve weather predictions on devastating storms.
- ❖ TROPICS is an acronym for Time-Resolved Observations of Precipitation Structure and Storm Intensity with a Constellation of Smallsats.
- ❖ It will provide information on rainfall, temperature, and humidity, to see storms evolve on an hourly basis.
- ❖ The new storm trackers can fly over hurricanes every hour.
- ❖ The current satellites flies over hurricanes every six hours.

REPORTS AND INDICES

Global Land Outlook report

- ❖ The second edition of the Global Land Outlook report published by the United Nations Convention to Combat Desertification (UNCCD).
- ❖ Nine Planetary boundaries are the thresholds of environmental limits that define a “safe operating space for humanity.
- ❖ Of these, climate change, biodiversity loss, land-use change, and geochemical cycles have already been exceeded.
- ❖ These breaches are directly linked to human-induced desertification, land degradation, and drought.
- ❖ Humans have already altered more than 70% of the earth’s land area from its natural state.
- ❖ This has contributed significantly to global warming and environmental degradation.
- ❖ It also led to a rise in poverty, hunger, inequality, zoonotic disease transmission etc.
- ❖ The global annual cost of land restoration to achieve meaningful results is expected to become at least \$300 billion by 2030.
- ❖ Each dollar invested in restoration activities has also been estimated to return between \$7 and \$30 in economic benefits.
- ❖ Worldwide, food systems are responsible for 80% of deforestation, and 70% of freshwater use.
- ❖ It is the single greatest cause of terrestrial biodiversity loss.
- ❖ Floods, drought and wildfire are some common environmental challenges that degrade land.

- ❖ Land and ecosystem restoration will help slow global warming and reduce the scale and frequency of disasters like droughts, floods, etc.



STATES

State Robotics Framework



- ❖ The Telangana government launched State Robotics Framework.
- ❖ It is a first-of-its-kind policy in India.
- ❖ It aimed at creating a sustainable robotics ecosystem and to position the state as a leader in the field of robotics.
- ❖ It focusses across four key domains - agriculture, healthcare, industrial automation and consumer robotics.

- ❖ The State has earlier launched five frameworks, covering the niche technology areas of Blockchain (2018), Drones (2019), AI (2020), Cloud Adoption Framework (2021), and Space Tech (2022).

IMPORTANT DAYS

National technology day - May 11

- ❖ This day marks the successful nuclear tests conducted at Pokhran, Rajasthan, in 1998, known as Operation Shakti.
- ❖ The day serves as an opportunity to honour scientists and engineers who have made contributions to the nation's development.
- ❖ Following the success of Pokhran-II, the government declared May 11 as National Technology Day in 1998.
- ❖ The first nuclear test was conducted in May 1974.
- ❖ In 1998, India became the world's sixth nuclear test.
- ❖ Theme for 2023 is 'School to Startups-Igniting Young Minds to Innovate.'

