



June - 19

TNPSC BITS

- ❖ The Tamil Nadu Government has sent a team of forest personnel, mahouts, and cavadies to undergo training at the Thai Elephant Conservation Centre (TECC) in Lampang, Thailand.
- ❖ Tamil Nadu Government has launched the New Comprehensive Mini-bus Scheme which extends mini bus services to 25,708 kilometres of the unserved areas in the State.
- ❖ An Indian Rat Snake (*Ptyas mucosa*), regionally known as Chera, may be notified as the Official Reptile of Kerala.
- ❖ The Indian Army has successfully conducted trials of the Rudrastra, a vertical take-off and landing (VTOL) UAV designed for deep-strike missions.
- ❖ Mumbai ranks 6th globally in the under-construction Data Center capacity by surpassing global hubs like London, Dublin.
- ❖ The Cherrapunji Eastern Craft Gin from Meghalaya has become the first alcohol label from the northeastern part of India to be exported.
- ❖ Father's Day is celebrated on the third Sunday (June 15/2025) of June month every year celebrated in this year.

TAMIL NADU NEWS

SIRF in Tamil Nadu

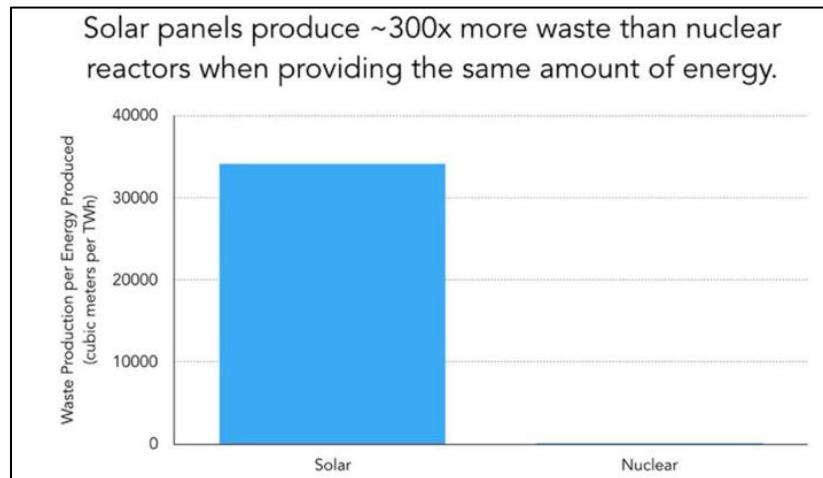


- ❖ The Tamil Nadu government has provided in-principal approval for establishing a State Institutional Ranking Framework (SIRF).
- ❖ It is a ranking list for higher education institutions in the State.

- ❖ The Tamil Nadu State Council for the Higher Education (TANSCHHE) under the department of higher education will be the implementing authority of the ranking.

NATIONAL NEWS

India's first solar waste playbook



- ❖ The Central Pollution Control Board (CPCB) has released the draft guidelines.
- ❖ It provides plans for the safe storage, handling and transportation of discarded solar photovoltaic (PV) modules, panels and cells.
- ❖ The guidelines were issued under the E-Waste (Management) Rules, 2022.
- ❖ Under the Chapter V of the E-Waste (Management) Rules, 2022, solar PV waste is classified as 'CEEW 14' category e-waste.

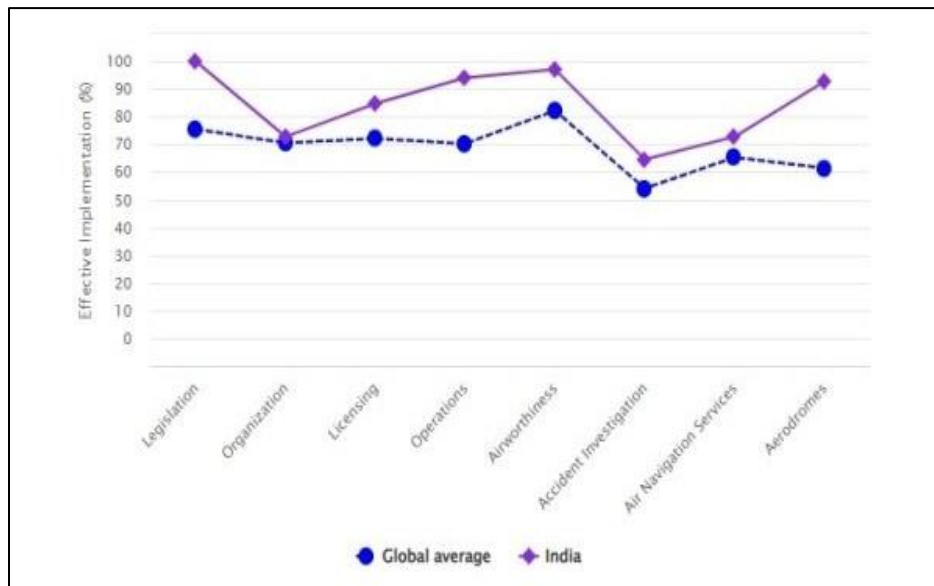
Project Vishnu

- ❖ India is preparing to test its most advanced indigenously developed hypersonic missile — the Extended Trajectory-Long Duration Hypersonic Cruise Missile (ET-LDHCM).
- ❖ The ET-LDHCM boasts a top speed of Mach 8 (approximately 11,000 km/h).
- ❖ It can deliver the swift and devastating strikes deep into the enemy territory, including targets in China and Pakistan.
- ❖ With this capability, India joins a group of countries, including the United States, China, and Russia, that have achieved operational success in hypersonic weapons technology.
- ❖ The missile can carry the warheads weighing between 1,000 and 2,000 kg over a range of approximately 1,500 km.

- ❖ It is powered by a scramjet engine which sustains the hypersonic speeds using the atmospheric oxygen, allowing for longer flight durations.



India's Aviation Safety Standards 2025

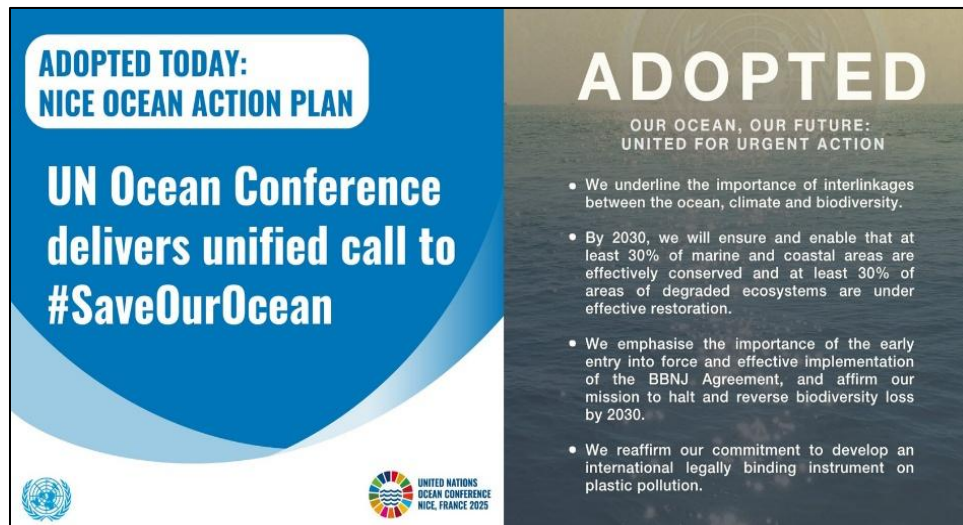


- ❖ India was rated well above the global average in terms of its operations and air worthiness by the International Civil Aviation Organization (ICAO).
- ❖ India scored particularly higher than the global average by the ICAO when it came to operations.
- ❖ The global average stood at 72.28 per cent and India at 94.02 per cent.
- ❖ This was even higher than the likes of the US (86.51 per cent) and China (90 per cent), as per their 2024 audits.

- ❖ India also scored higher than the US and China in terms of airworthiness: 97.06 per cent versus 89.13 per cent and 94.83 per cent, respectively.
- ❖ While India's last audit was in 2022, the audits for US and China were conducted in 2024.
- ❖ The US Federal Aviation Administration (FAA) has retained India's International Aviation Safety Assessment category as Category 1.
- ❖ India is the third-largest domestic aviation market after the US and China.

INTERNATIONAL NEWS

Nice Ocean Action Plan



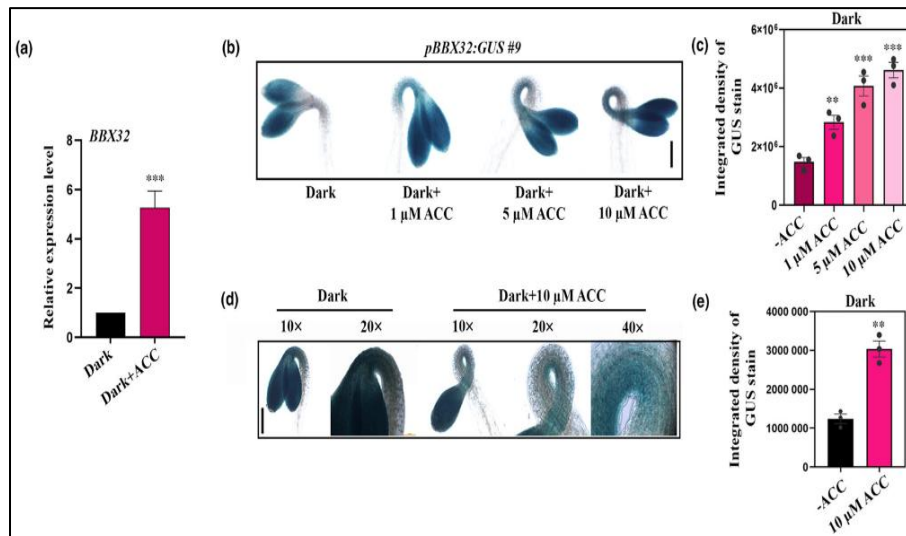
- ❖ The Third UN Ocean Conference (UNOC3) 2025 was held in Nice, France.
- ❖ It was co-hosted by France and Costa Rica.
- ❖ They adapted the Political Declaration titled “Our Ocean, Our Future: United for Urgent Action”.
- ❖ The declaration is also known as the “Nice Ocean Action Plan”.
- ❖ Ratification of High Seas Treaty has touched 50.
- ❖ The President of the European Commission has announced an investment of €1 billion to support ocean conservation, science and sustainable fishing.
- ❖ Indonesia & World Bank officially launched the Coral Reef Bond.
- ❖ French Polynesia announced the creation of the world's largest Marine Protected Area (MPA).
- ❖ It covers the entirety of the country's exclusive economic zone (EEZ), almost 5 million square kilometers (more than 1.9 million square miles).

- ❖ Both Chile and the Republic of Korea's made a joint proposal to host the next UN Conference on Oceans in 2028.

SCIENCE AND TECHNOLOGY NEWS

BBX32 Protein

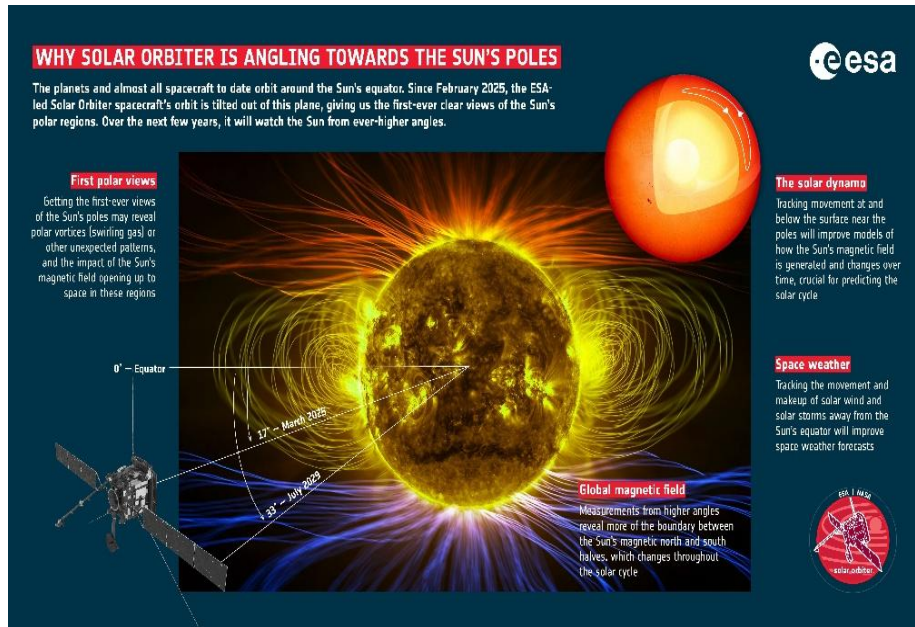
- ❖ IISER- Bhopal have found that a single protein helps plants time their first step from darkness into light.
- ❖ They have also found that ethylene turns BBX32 on and that light protects the BBX32 from being destroyed.
- ❖ The role of BBX32 itself is to keep the hook closed for longer.
- ❖ Without extra ethylene, BBX32 mutants behave like normal plants whereas with high ethylene or a sand cover, the hook opens too soon.
- ❖ Ethylene partially shields BBX32.
- ❖ But once the emerging seedling first senses daylight, COP1 enzyme activity drops, allowing the protein to build up on the concave side of the hook and hold it shut a little longer.



First images of the Sun's Poles

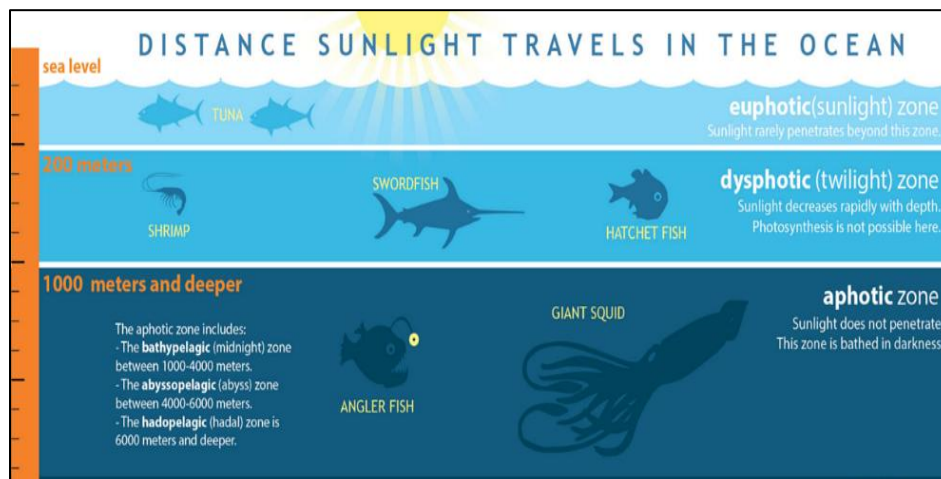
- ❖ The first ever video and images of the Sun's south pole have been sent back to Earth by the European Space Agency's Solar Orbiter spacecraft.
- ❖ The new images will enable the scientists to learn how the Sun cycles between periods of raging storms and quiet times.

- ❖ The Solar Orbiter also has captured new images of chemical elements at different layers of the Sun and their movement.
- ❖ These have been taken using an instrument called SPICE.



ENVIRONMENT NEWS

Global Ocean Darkening



- ❖ More than one-fifth of the global ocean has considerably darkened in the last two decades.
- ❖ It is essentially shrinking of the photic zones or those layers of the water where sunlight can pass and induce the process of photosynthesis.

- ❖ The photic layers can go down to about 200 meters and they also act as a base for nearly 90 per cent of the world's marine life.
- ❖ Between 2003 and 2022, nearly 21 per cent of the global ocean experienced the darkening.
- ❖ Around the same two decade-span, a considerable part of the global ocean has actually become lighter.
- ❖ The North Sea, the eastern UK coastline, and the Arctic have lost lighter than any other regions.

IMPORTANT DAYS

World Wind Day 2025 - June 15



- ❖ It aims to raise awareness about the power of wind energy, its potential to reshape our energy systems, and its vital role in combating climate change.
- ❖ This event led by Wind Europe, the Global Wind Energy Council (GWEC) in 2007.
- ❖ The theme for 2025 is "Day of Community Action".
- ❖ India has observed this day under the theme 'Pawan-Urja: Powering the Future of India'.

World Day to Combat Desertification and Drought 2025 - June 17

- ❖ It aims to raise an awareness about the urgent need to halt land degradation and build resilience against drought.

- ❖ On this day in 1994, the United Nations Convention to Combat Desertification (UNCCD) was adopted in Paris.
- ❖ The Republic of Colombia hosted this year's global observance.
- ❖ The theme for 2025 is "Restore the land. Unlock the opportunities".



MISCELLANEOUS NEWS

Black box of Boeing 787-8 Dreamliner

WHAT COLOUR IS A BLACK BOX?

Not black!

Black boxes are bright yellow or orange.

The bright colour is used to assist in locating the boxes after an accident. Before airlines made day-glow orange a standard colour for the flight recorders, some Boeings used a yellow sphere.



WHY IS IT CALLED SO?

There are several theories about the origin of the name "black box", the most widely accepted one refers to the early black box designs which were dark inside. Another view is that **it got its name from its charred look due to post-accident fires.**



- ❖ The black box, technically known as the flight data recorder, is expected to play a vital role in uncovering the cause of the disaster.

- ❖ It contains crucial information such as flight speed, altitude, engine performance, and cockpit audio, including communications between the pilots and air traffic control.
- ❖ These specialised devices are built to withstand the extreme temperatures, water, and severe impact, ensuring the survival of key data even under the catastrophic conditions.
- ❖ The black box is typically painted bright orange to make it easier to locate amid the wreckage.

Early Harappan settlement in Gujarat




- ❖ Archaeologists have unearthed a 5,300-year-old settlement near Lakhapar village in western Kachchh, Gujarat.
- ❖ The excavation has revealed an Early Harappan habitation site.
- ❖ It is located near the now-quiet Gandi River, once a perennial water source.
- ❖ The evidence of pottery from both Early and Classical Harappan phases, dating back to around 3300 BC.
- ❖ Among these finds is the very extremely rare Pre-Prabhas Ware, previously known from only three sites across Gujarat.
- ❖ They discovered a human burial in the vicinity of the settlement.

- ❖ The poorly preserved skeleton was also interred directly in a pit with no visible architecture or markers and accompanied by Pre-Prabhas Ware pottery.
- ❖ This is the first known burial to include this rare ware.
- ❖ It was suggesting a previously undocumented ritual practice or subgroup within the Early Harappan population.


Restricting AC Temperature

- ❖ The Indian government is planning a new rule to control the temperature range at which air conditioners can run in the country.
- ❖ The temperature standardisation for ACs will be set between 20°C to 28°C, which means we will not be able to cool below 20°C or heat above 28°C.
- ❖ Currently, the AC temperature goes up to 18°C (16°C in a few) with a maximum of up to 30°C.
- ❖ Every 1°C increase in AC temperature can cuts energy use by 6%.


**INDIA'S NEW AC NORM:
20°C – 28°C ONLY!**




**▲ 1° HIGHER CAN SAVE
3-6%
ON YOUR ELECTRICITY BILL**



**₹18K-20K CR
SAVED IN 3 YEARS**



**ENERGY-
WISE**



**EARTH-
FRIENDLY**

New AC Temperature Rule In India
How does it compare with global standards?

Spain
Offices, shops and other establishments mandated not to set air conditioning below 27°C during summer, as part of efforts to reduce the country's energy consumption

South Korea
AC temperatures in buildings during summer months (June to September) mandated be set at 26°C or higher

Singapore
'Go 25' movement urges households, businesses and buildings to set their air conditioning at 25°C or higher

United States
The US Department of Energy recommends setting air conditioners to around 78°F (25°C) when at home and awake

China
Ministry of Environment recommends that AC thermostats be set no lower than 26°C in summer and no higher than 20°C in winter

