

**DAILY
CURRENT
AFFAIRS
ANALYSIS**

LAKSHYA ACADEMY[®]

15 DECEMBER 2023

1 - AGNI Initiative:

GS II

Government Policies and Interventions:

- **Context:**

- For doctors who practise Ayurveda, the Central Council for Research in Ayurveda Sciences (CCRAS) has introduced the "Ayurveda Gyan Naipunya Initiative" (AGNI).

- **Important information:**

- Ayus Ministry is the nodal ministry.

- **Objectives and goal:**

- to encourage research aimed at bringing practical Ayurvedic techniques into the mainstream via evidence-based evaluation and scientific confirmation.
- to give Ayurvedic practitioners a forum to share their creative methods and experiences treating a range of medical issues.
- to encourage ayurvedic practitioners to report evidence-based practices.
- For scholarly and educational purposes, to compile a list of the documented effective treatment plans involving single drugs, formulations, or procedures for a range of medical diseases.
- To find Ayurvedic practitioners who are interested in working together to create a database through applications and to enhance their capacity by providing training in effective clinical practices and research approaches.
- to conduct research in order to mainstream pragmatic techniques by means of evidence-based evaluation and scientific confirmation.

- **Who is going to release the information?**

- In conjunction with NCISM (National Commission for Indian System of Medicine), CCRAS will record and disseminate the reported therapeutic regimens and medical practices for educational and scholarly objectives.
- Concerning CCRAS:
- The Ministry of Ayurveda's CCRAS is the premier research organisation dedicated to conducting, organising, planning, developing, and promoting scientific Ayurvedic research.

- **Several CCRAS initiatives include:**

- The Ayurvedic Research Ken Studentship Programme (SPARK) for Undergraduate Scholars,
- Programme for Graduate Students to Learn Ayurvedic Research Techniques (PG-STAR) for PG Scholars and
- The scope of the teacher education programme known as Mainstreaming Ayurveda Research in Teaching Professionals (SMART).

- *Source → The Hindu*

2 – Kambala:

GS I

Indian Culture

- **Context:**

- Ideological differences aside, political adversaries in Karnataka have joined together to plan Bengaluru's slush track buffalo race, Kambala.

- **About Kambala:**

- Karnataka hosts the yearly Kambala buffalo race.
- The Kambala racecourse is a slushy paddy field where buffaloes are led by a farmer who spansks them. It's a sport.
- It is traditionally supported by Tuluva landlords and households in the coastal regions of Kasaragod, Kerala, and Dakshina Kannada, Karnataka, together referred to as Tulu Nadu.
- Typically, the Kambala season begins in November and lasts through March.
- Through Kambala Samiti (Kambala Associations), the Kambalas are arranged.
- The word Kambala comes from the Sanskrit phrase "kampa-kala," where "Kampa" refers to a muddy, slushy area.

- **Legal Status:**

- Kambala was banned by the Indian Supreme Court in 2014.
- The hands-on bull-taming sport known as Jallikattu was also prohibited.
- In January 2017, a government order lifted the ban on jallikattu.

- The Kambala celebration was made legal again in Karnataka by the Prevention of Cruelty to Animals (Karnataka Amendment) Ordinance, 2017.
- *Source* → *The Hindu*

3 - Restoration of a 12th Century Chola temple:

GS I

Indian Culture

- **Context:**
- The Chola dynasty's impressively designed temple from the 12th century is in a state of disrepair at Mundlapudi hamlet, outside of Tirupati.
- **Important information:**
- The temple was built on a "Adhishtana" (basement), with "Kumbhapanjara" pillars, small shrines, Koshtas, and Makara Thoranas adorning the walls.
- In the traditional Chola style, there are also some sculpted idols of musicians, dwarfs, Venugopala Krishna, and Nataraja.
- Munaipundi or Muniyapundi was the original name of the village Mundlapudi.
- In an inscription by Vikrama Chola (1118–35 CE) etched on the mouldings of the temple basement, it was also known as Sivapadasekharanallur, after the title of King Raja Raja Narendra.
- The inscription also mentions that the village's earnings were given to the nearby Parasareswara Swamy temple at Yogimallavaram, which is less than a km away, in order to light its lamps.
- The villagers worship a simple picture frame of Lord Krishna instead of an idol of him in the temple.
- *Source* → *The Hindu*

4 - Nugu Wildlife Sanctuary:

GS III

Environmental Conservation:

- **Context:**

- The Bandipur Tiger Reserve's neighbouring Nugu Wildlife Sanctuary should be designated as a core vital tiger habitat, according to a recommendation made to the authorities by the National Tiger Conservation Authority (NTCA).

- **Important information:**

- The State government of Karnataka may think of designating and notifying the entire sanctuary area as Core/Critical Tiger home of Bandipur Tiger Reserve, given the ecological significance of Nugu Wildlife Sanctuary, which is a great home for tigers and elephants and is inviolate.
- Situated in the Mysuru district, Nugu spans 30.32 sq km and was designated as a Wildlife Sanctuary by the State.
- On the western side of the Nugu Wildlife Sanctuary, the backwaters of the Nugu dam make up a portion of the area.

- **The surroundings of the sanctuary comprise:**

- scrub woodlands
- agricultural regions close to the reservoir, and
- dry, deteriorated deciduous woodlands nearby.
- A relatively high density of elephants may be found in the Nugu Wildlife Sanctuary, which is a part of the Nilgiri Biosphere Reserve.
- Two significant kinds of riverine fauna are also present in the sanctuary:
 - otter with a sleek coat, and
 - crocodile in the marshes.
- Due to the volume of commercial tourism operations, Nugu Wildlife Sanctuary has been designated as an eco-sensitive area.

- **About the NTCA:**

- On the advice of the Tiger Task Force, the National Tiger Conservation Authority (NTCA) was founded in 2005.

- **Goal:**
- It was founded by the Indian Prime Minister in an effort to restructure the administration of Project Tiger and several of the country's Tiger Reserves.
- **1972's WPA:**
- In order to establish the National Tiger Conservation Authority and carry out the Project Tiger plan to safeguard endangered tigers, the Wildlife Protection Act of 1972 was revised in 2006.
- **Head of the Committee:**
- The Environment and Forests Minister.
- **Other participants:**
- Eight specialists or experts with training and expertise in both human welfare and wildlife protection.
- There will be three members of parliament: two chosen by the Lok Sabha and one by the Rajya Sabha.
- The project Tiger's inspector general of forests will serve as an ex-officio member secretary.
- **Principal role:**
- With the exception of national parks and sanctuaries, the Authority would establish normative standards and recommendations for the conservation of tigers in the Tiger Reserves.
- **Source** → *The Hindu*

5 - Laser Signal from space:

GS III

Science and Technology

- **Context:**

- On November 14, NASA's Psyche mission, which is presently more than 16 million kilometres out in orbit, successfully sent a laser signal towards Earth.

- **Important information:**

- The spacecraft is orbiting the Sun between Mars and Jupiter on its way to a special metal-rich asteroid.
- Researchers think this asteroid represents the nickel-iron core of a protoplanetary, whose research could shed light on the impenetrable iron core of our own planet.
- It will also carry out a second mission concurrently that could be crucial to future space exploration.

- **Space electromagnetic spectrum:**

- **How communication occurs in space:**

- There are numerous difficulties in communicating with spacecraft located far from Earth, but data rates may be the most significant one.
- Spacecraft use a variety of electromagnetic frequency bands to encode data, just like terrestrial wireless communications do.
- Nowadays, radio waves—which have the longest wavelengths but the lowest frequencies in the electromagnetic spectrum—are used for the majority of space communication.

- **Greater versus lesser bandwidths:**

- Higher bandwidths, or frequency ranges, can, however, transfer more data per second.
- Therefore, in order to maximise data transfer rates, scientists would prefer to transmit data at the maximum bandwidths available.
- Application of radio waves:
- Because of their long wavelength and good transmission qualities, radio waves are utilised for communication more frequently than other electromagnetic waves.

- They can bend around obstacles and travel through most building materials and flora in addition to passing through the atmosphere in all conditions.
- When shorter wavelengths come into touch with any interference, they often disperse.
- **NASA's Optical Communications in Deep Space:**
 - The use of near-infrared laser transmissions for spacecraft communication is being pioneered by NASA's Deep Space Optical Communications (DSOC) experiment.
 - With data rates at least ten times faster than current radio telecommunications systems of similar size and power, DSOC will make it possible to stream video and produce higher resolution photos and amounts of scientific data.
 - During its two-year voyage to the main asteroid belt, the Psyche spacecraft—the first to carry a DSOC transceiver—will test high-bandwidth optical communications to Earth.
- **How was the laser signal picked up?**
 - The transceiver locked onto a potent uplink laser beacon sent from the Optical Communications Telescope Laboratory, allowing the tech demo to achieve first light.
 - Both the ground-based laser transmitter and the flight laser transceiver must point precisely.
 - Achieving their goals will be like to hitting a moving dime from a distance of one mile.
 - The spacecraft's transceiver must be insulated from the vibrations of the craft in order to do this.
 - Furthermore, the DSOC ground and flight systems will have to make adjustments, indicating where the ground receiver and flight transceiver will be when the signal arrives, because the positions of Earth and the spaceship will be continuously shifting as the photons travel.
 - New signal-processing methods will be used to extract information from the feeble laser pulses sent over the vastness of space, considering the distance between the spaceship and Earth
- *Source → The Hindu*