

### WHAT IS AZAADISAT-2?

ISRO's Small Satellite Launch Vehicle SSLV-D2 carrying EOS-07, Janus-1 and AzaadiSAT-2 satellites was successfully launched from the Satish Dhawan Space Station, in Sriharikota.

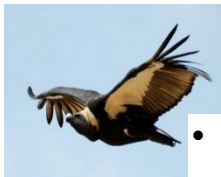


#### About AzaadiSAT-2:

- It has been developed by about 750 girl students across India.
- They contributed to the design and construction of the satellite built by Chennai-based startup Space Kidz India.
- The girls received training both online and, in some cases, in-person.
- Experiment materials were sent to these girls and they were guided on how to use it.
- “SpaceKidz developed basic and simple experiments that students can learn and assemble with the simultaneous support of their science teachers.
- Objective: It aims to measure various health data like temperature and reset count from 75 student experiments installed inside the satellite.

### INDIAN WHITE-BACKED VULTURE

The third phase of the reintroduction programme of the critically endangered oriental white-backed vultures was launched recently.



#### About Indian white-backed vulture:

- They are medium-sized, dark vultures.
- Scientific name: Gyps bengalensis
- Distribution: Pakistan, India, Bangladesh, Nepal, Bhutan, Myanmar (Burma), Thailand, Laos, Cambodia, and southern Vietnam.
- Habitat: Found mostly in plains and less frequently in hilly regions. Can also be seen in villages and cities near to cultivation.

- **Features:**
  - Adults are **75 to 85 cm tall**.
  - **White neck ruff, rump** and under wing coverts.
  - **Adults tend towards black coloration**, while younger individuals are browner
  - Their **wing span is 180 to 210 cm**
  - **Weight:** Ranges from **5 to 7.5 kg**
  - **IUCN Status: Critically Endangered**
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## SIMILIPAL TIGER RESERVE (STR)

Forest staff at Similipal Tiger Reserve (STR) recently recovered the carcass of an elephant with missing tusks from Gopinathpur beat within the Pithabata wildlife range of STR south division.



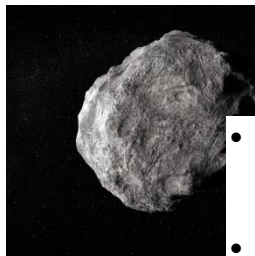
### About Similipal Tiger Reserve (STR):

- **Location:** STR is located within the **Mayurbhanj District**, in the Northern-most part of **Odisha**.
- It is **surrounded by high plateaus and hills**, the **highest peak** being the twin peaks of **Khairiburu and Meghashini** (1515m above mean sea level).
- The terrain is mostly **undulating and hilly, interspersed with open grasslands and wooded areas**.
- It was **declared a 'Tiger Reserve' in the year 1956** and included under the national conservation programme '**Project Tiger**' in **1973**.
- The STR along with a 'transitional area' of 2250 sq. km has been included as a part of the **World Network of Biosphere Reserves** by **UNESCO** in the year **2009**.
- It is the **only landscape in the world that is home to melanistic tigers**.
- The region around STR is home to a variety of **tribes including Kolha, Santhala, Bhumija, Bhatudi, Gondas, Khadia, Mankadia and Sahara**.
- **Flora:**
- An astounding **1078 species of plants including 94 species of orchids** are found here.

- **Eucalyptus**, are also the major floral attraction in the area.
  - **Fauna: Leopard, Gaur, Elephant, Langur, Barking and Spotted Deer, Sloth Bear Mongoose, Flying Squirrel, Porcupine, Turtle, Monitor Lizard, Python, Sambar, Pangolin etc**
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## WHAT IS 199145 (2005 YY128)?

Experts at NASA are tracking a giant asteroid named 199145 (2005 YY128) which is just days away from entering Earth's orbit.



### **About 199145 (2005 YY128):**

- 199145 (2005 YY128) is an asteroid whose orbit crosses the orbit of Earth.
- It orbits the sun every 774 days (2.12 years) in an elliptical orbit.
- 2005 YY128 is probably between **566 to 1.265 kilometers in diameter**.
- Its orbit is **0.03 astronomical unit from Earth's orbit** at its closest point.

### **What is an Asteroid?**

- Asteroids are **small, rocky objects that orbit the sun**.
- Although asteroids orbit the sun like planets, **they are much smaller than planets**.
- Most of them **live in the main asteroid belt—a region between the orbits of Mars and Jupiter**.

### **What is an astronomical unit (AU)?**

- An Astronomical Unit (AU) is the **average distance between Earth and the Sun, which is about 93 million miles or 150 million kilometers**.
  - Astronomical units are usually **used to measure distances within our Solar System**.
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## ARTICLE 105 OF CONSTITUTION: THE LIMITS TO FREE SPEECH IN PARLIAMENT, AND WHAT THE SUPREME COURT HAS RULED

## Why in News?

- Protesting against the removal of parts of his speech on the motion of thanks on the President's Address, the Leader of Opposition in Rajya Sabha cited **Article 105** of the Indian Constitution.

## What does Article 105 Say?

- It deals with **powers, privileges** (first brought out by the GoI Act 1935), etc., of the Houses of Parliament, its members and committees and has following provisions -
  - There shall be **freedom of speech** in Parliament
  - **No member of Parliament shall be liable** -
    - to any proceedings in any court in respect of **anything** said or any vote given by him/her in Parliament.
    - to the publication by or under the authority of either House of Parliament of any report, paper, votes or proceedings.
  - Such powers, privileges and immunities may from time to time be **defined by Parliament by law**.
  - Until then, shall be those which were in effect immediately before the coming into force of the Constitution (44th Amendment) Act, 1978.
  - The above provisions shall apply to persons who have the **right to speak/ take part in the proceedings** of a House of Parliament/ any committee thereof.
- Simply put, Members of Parliament (MPs) are **exempted from any legal action** for any statement made or act done in the course of their duties.
  - **For example**, a defamation suit cannot be filed for a statement made in the House.
- This immunity extends **to certain non-members as well**, such as the Attorney General of India or a Minister who may not be a member but speaks in the House.
- This provision ensures that MPs **can perform their Parliamentary responsibilities without any hindrances/fear** and maintain the authority, dignity of the Parliament and enable its democratic functioning.
- In cases where a member oversteps or exceeds the contours of admissible free speech, the **Speaker or the House itself will deal with it**, as opposed to the court.

## What is the Difference between Article 19 and Article 105?

- Both the Articles talk about freedom of speech, however, **Article 105** applies to the MPs and is not subjected to any reasonable restriction.
- On the other hand, **Article 19(1)(a)** applies to citizens and is subject to reasonable restrictions.
- This means, Article 105 is an **absolute privilege** given to the MPs. But this privilege can be used **in the premises of the Parliament** and not outside the Parliament.

## Are there no Limitations on this Privilege?

- **Article 121 of the Constitution** forbids discussion of any judge's conduct (while performing his or her duties in the SC/HC) in Parliament barring a motion that presents an address to the President requesting the judge's removal.

## What Rulings has the SC made Regarding Parliamentary Privileges?

- **Two questions came before the SC:**
  - Whether MPs could claim immunity (under Articles 105) from prosecution before a criminal court on charges of bribery related to Parliamentary proceedings.
  - Whether an MP is a “public servant” under the Prevention of Corruption Act, 1988.
- **The court’s rulings?**
  - The apex court ruled that the ordinary law would not apply to the acceptance of a bribe by an MP in case of parliamentary proceedings.
  - The court said that Article 105(2) protects a Member of Parliament against proceedings in court that relate to, or concern, or have a connection or nexus with anything said, or a vote given, by him in Parliament.
  - Article 105 will enable members **to participate fearlessly in Parliamentary debates** and these members need the wider protection against all civil and criminal proceedings that bear a nexus to their speech or vote in Parliament.
  - The word “anything” in Article 105 is of the widest importance and is equivalent to ‘everything’.

## 5.9 MILLION-TONNE FIND IN J&K MAKES INDIA 7TH LARGEST RESOURCE OF LITHIUM IN WORLD

### Why in News?

- The Geological Survey of India (GSI), for the first time, has established availability of lithium-inferred resources of 5.9 million tonnes in **Reasi district** of Jammu and Kashmir.

### What is Lithium?



- Lithium is a chemical element with the symbol Li and atomic number 3. It is a **soft, silvery-white** alkali metal.
- Lithium is a special metal in many ways. It's light and soft — it can be cut with a kitchen knife and so low in density that it floats on water.

### Applications of Lithium:

- The most important use of lithium is in **rechargeable batteries for mobile phones, laptops, digital cameras and electric vehicles (EVs)**.
- Lithium is often dubbed as “**white gold**” for electric vehicles.
- Lithium metal is made into alloys with aluminium and magnesium, improving their strength and making them lighter.
- Aluminium-lithium alloys are **used in aircraft, bicycle frames and high-speed trains**.
- Lithium has no known biological role. **It is toxic**, except in very small doses.

### Where is Lithium Found Naturally?

- Lithium makes up a mere **0007 per cent of the Earth's crust** and it's only found locked up in minerals and salts.
- With 8 million tonnes, **Chile has the world's largest known lithium reserves**.
- Chile is followed by **Australia (2.7 million tonnes), Argentina (2 million tonnes) and China (1 million tonnes)**.
- **NOTE** – This was before the discovery of 5.9 million tonnes of reserves in J&K.

- Global lithium production surpassed **100,000 tonnes** for the first time in 2021, quadrupling from 2010. Currently, **Australia alone produces 52% of the world's lithium.**

### Future of Lithium Production:

- As the world produces more batteries and EVs, the **demand for lithium is projected to reach 1.5 million tonnes of lithium carbonate equivalent (LCE) by 2025 and over 3 million tonnes by 2030.**
- Based on the above demand projections, production needs to triple by 2025 and increase nearly six-fold by 2030.

### Discovery of Lithium-reserves in India:



- The Geological Survey of India, during preliminary exploration (G3) stage, found that 5.9 million tonnes have been found in Salal-Haimana area of Reasi district of J&K.

As part of efforts to augment local reserves of the critical mineral, the **GSI has carried out 14 projects on lithium**

**during last five years.**

- India now has the third largest resource of lithium globally, but it will take time to convert it to reserves.

### Strategic Significance of this Discovery:

- This is the first significant discovery of lithium in India, as previously only a small reserve had been discovered in Karnataka.
- Lithium deposits are critical for India as the country puts its focus on electric mobility for both public and private transport.
  - The country's imports of lithium and lithium-ion in FY21 stood at Rs 8,900 crore in FY21 and increased to Rs 13,800 crore in FY22.
- The ongoing **Russia-Ukraine** has **disrupted the supply**, resulting in high cost of the minerals.

## INDIA, CANADA FMS DISCUSS RESET IN TIES WITH INDO-PACIFIC STRATEGY

### **Canada-India relations**

#### **Background**

- Diplomatic relations between the two countries were established in 1947.
- Bilateral relation was elevated to a strategic partnership during PM Modi's visit to Canada in 2015.

#### **Cooperation in COVID-19 Pandemic**

- Repatriation flights:
  - Special charter flights were operated by the Canadian High Commission and facilitated by India to evacuate stranded Canadian nationals from India.
  - Export of a total of 12.34 crore paracetamol tablets, 5 crore Hydroxychloroquine tablets and 3510 kgs of Hydroxychloroquine Sulfate USP (API); and 10 Million eye shield with face mask were shipped to Canada.

#### **Trade relations**

- A priority market for Canada, in 2021, India was Canada's 14th largest export market, and 13th largest trading partner overall.

#### **Development cooperation**

- After 55 years of bilateral programming in India totaling \$2.39 billion, Canada's bilateral development assistance program came to an end in 2006.

#### **Nuclear Cooperation**

- Canadian aid to India in the nuclear field begun in 1956. However, this relationship deteriorated in 1974 after India conducted **Smiling Buddha nuclear test**.
  - Canada was among the first countries to participate in India's nuclear power program.

#### **Science and Technology**

- Canada was a partner country for the Technology Summit 2017.

#### **Cooperation in Space**

- ANTRIX, the Commercial arm of ISRO, has launched several nanosatellites from Canada.
- ISRO in its 100th Satellite PSLV launched in January 2018, also flew Canadian first LEO satellite.



## Cooperation in Indo-Pacific

- In November 2022, **Canada's Indo-Pacific strategy was released.**
- Canada, 20 per cent of whose population originates in the Indo-Pacific region, is the last G7 nation to embrace the concept of the Indo-Pacific.

## People-to-People

- Canada hosts one of the largest Indian diasporas in the world, numbering 1.6 million (PIOs and NRIs) which account for more than 4% of its total population.

## Challenges

- **Separatist Khalistani groups**
  - Canada has been providing a safe haven for separatist Khalistani groups, which New Delhi sees as the Liberal Party's pandering to these groups for votes.
  - Diaspora Sikhs are well represented in the Trudeau government. Some of them are politically supported by pro-Khalistan groups.
  - Jagmeet 'Jimmy' Dhaliwal, whose New Democratic Party supports Trudeau's minority government in Parliament, is viewed with suspicion by the Indian establishment.
  - Last year, New Delhi objected to Canada permitting a Khalistani secessionist "referendum" in the Sikh diaspora.
- **Canada is slow to act against anti-India elements on its soil**
  - Recently, a Hindu temple near Toronto was vandalised and defaced with anti-India graffiti.
  - Concerns that Canada is slow to act against anti-India elements on its soil have been a constant irritant in the relationship.
- **Other irritants include**
  - Attacks on Indian-origin people;
  - Canadian comments over India's farmer protests and India's cancellation of diplomatic talks in response.

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## [SUNDARBAN BIOSPHERE RESERVE](#)

Recently, birders, wildlife enthusiasts and forest officials have sighted 145 different bird species during the first Sundarban Bird Festival.



### Why in news?

- The first-ever festival was organised by the Sundarban Tiger Reserve (STR) division of the West Bengal Forest Department, where six teams visited different areas inside the Sundarban Biosphere Reserve.

### Key facts of the Sundarban Biosphere Reserve

- The Sundarbans is located on the delta of the Ganga, Brahmaputra and Meghna rivers in the Bay of Bengal.
- This Biosphere Reserve includes **Sundarban Tiger Reserve**, Sundarban National Park (core area), Halliday Island and **Lothian Island Wildlife Sanctuaries with Sajnakhali Wildlife Sanctuary** forming its buffer area.
- It is designated as a **UNESCO World Heritage site**.
- **Flora:** The vegetation of the area is moist tropical forests and tidal forests.
- **Fauna:** It is home to Royal Bengal Tiger, Estuarine Crocodile, Gangetic Dolphin, Water Monitor Lizard etc.