

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition

Current Affairs - 19 May 2025

POLAR SATELLITE LAUNCH VEHICLE (PSLV)



- PSLV stands for **Polar Satellite Launch Vehicle**, a four-stage launch vehicle developed by the **Indian Space Research Organisation (ISRO)**.
- It is primarily designed to **place satellites into Sun-synchronous polar orbits (SSPOs)**, which are ideal for **Earth observation missions**.
- Each stage of PSLV is powered by a **different engine and propellant combination**, enabling it to **carry medium-weight payloads** to a variety of orbits with high precision.

Configuration and Design

- The PSLV has four stages, with alternate solid and liquid propulsion systems:
 - **First Stage:**
 - Uses **HTPB-based solid propellant** (Hydroxyl-Terminated Polybutadiene).
 - In the **XL configuration**, it is supported by **six strap-on boosters** that enhance the **initial thrust**.
 - Capable of generating a **peak thrust of 4.8 MegaNewtons (MN)**.
 - **Second Stage:** Powered by the **Vikas engine**, which uses a **liquid fuel combination**:
 - **Unsymmetrical Dimethylhydrazine (UDMH)** as fuel
 - **Nitrogen Tetroxide (N₂O₄)** as oxidiser
 - Generates a thrust of approximately **8 MN**.
 - **Third Stage:** Reverts to **solid propulsion**, again using **HTPB-based fuel**.
 - **Fourth Stage:** Utilises two **liquid engines** burning **Monomethylhydrazine (MMH)** and **Mixed Oxides of Nitrogen (MON)**.

PRESIDENTIAL REFERENCE



• A Presidential Reference is a constitutional mechanism under Article 143 of the Indian Constitution, wherein the President of India seeks the advisory opinion of the Supreme Court on important questions of law or fact.

- This power enables the executive to seek judicial clarity on complex constitutional matters without initiating litigation.
- There are two components of Article 143:
 - Article 143(1) allows the President to refer any question of law or fact of public importance to the Supreme Court for its advisory opinion.
 - Article 143(2) pertains to disputes involving pre-Constitutional treaties and agreements, permitting the President to refer such matters for legal clarification.
- **Nature of Opinion:** The Supreme Court's opinion is not binding on the President. It does not carry precedential value but holds strong persuasive authority and is usually followed by the executive and judiciary.
- **Historical origin:** The provision originates from the Government of India Act, 1935, which empowered the Governor-General to refer legal matters to the Federal Court.
- **Procedure for Reference:** The President refers to the advice of the Union Council of Ministers. As per Article 145, a minimum 5-judge Bench of the Supreme Court must hear the matter.
- **The court's discretion:** The Supreme Court may choose whether or not to answer the reference. It can refuse to respond if the question is vague, hypothetical, or outside judicial purview.
- **Global comparisons:**
 - **Canada:** Allows similar advisory references to the Supreme Court of Canada.
 - **United States:** It does not permit advisory opinions, and it respects the strict separation of powers.

KEY FACTS ABOUT JNANPITH AWARD



- It is the **highest literary honour of India**, given to writers who have excelled in literature in different Indian languages.
- It is given every year to an author for his/her **outstanding contribution towards Indian literature through creative writing in any of the Indian languages mentioned in Schedule VIII of the Indian Constitution and English**.
- It was **instituted in 1961**.
- The prize carries a **cash award, a citation, and a bronze replica of Vagdevi (Saraswati)**, the goddess of learning.
- It is **sponsored by** the cultural organization **Bharatiya Jnanpith**.
 - Bharatiya Jnanpith is one of the **premier literary organisations** of India, which is nurturing literature and culture through its literary endeavors, which include awards, publication, fellowship, and research, for the last several decades.
 - The organisation was established in 1944.

The **first recipient** of the award was **Malayalam poet G. Sankara Kurup**, who received the award in **1965** for his collection of **poems Odakkuzhal**.

- **Only those creative writers who are alive and are Indian citizens**, can be proposed for the Award.
- A language which receives the Award in a particular year is **not eligible** for consideration for the **next two years**.
- A writer who receives the Award once will **not be considered again**.
- The Award **may not be given in a particular year** if the **Jnanpith Award Selection Board** feels that there is **no suitable name** which comes up to the expected standard of the Award.

Current Affairs - 19 May 2025

INDIA'S NUCLEAR POWER SECTOR REFORM: OPENING DOORS FOR PRIVATE AND FOREIGN PARTICIPATION

- India is on the cusp of a transformative reform in its nuclear energy sector.
- The government is planning two key legislative amendments aimed at opening up atomic energy generation to private and foreign players.

Legislative Reforms in Nuclear Sector

- The government is expected to table two critical amendments during the upcoming monsoon session of Parliament:
- **Amendment to Nuclear Liability Law**
 - The first proposed amendment pertains to the **Civil Liability for Nuclear Damage Act, 2010**.
 - Currently, the law channels the liability for nuclear accidents to equipment vendors, which has deterred major global players such as GE-Hitachi, Westinghouse, and Framatome from investing in India.
 - The amendment seeks to:
 - **Cap the liability of vendors** to the original value of the contract.
 - **Introduce a time-bound liability window**, beyond which vendors will not be held responsible.
- **Amendment to the Atomic Energy Act, 1962**
 - The second amendment would allow **private Indian companies**, and possibly **foreign firms**, to operate nuclear power plants as generators, an activity currently reserved for state-owned entities like NPCIL and NTPC. This will:
 - Enable **public-private partnerships** in nuclear energy.
 - Open doors for **minority equity participation** by foreign firms in upcoming nuclear projects.
 - Increase competition, technology infusion, and investment in India's nuclear sector.

Implications for India's Energy Security and Climate Goals

- The opening of the nuclear sector to private and foreign players could be a pivotal moment for India's **energy transition**, especially as it aims to achieve **net-zero emissions by 2070**.
- Key implications include:
 - **Accelerated nuclear capacity addition**, which currently lags behind other clean energy sectors.
 - **Diversification of clean energy sources**, reducing reliance on coal and imported fossil fuels.
 - **Promotion of innovation** through global technology partnerships and domestic manufacturing.
- With India's electricity demand projected to double by 2040, nuclear energy can play a vital role in ensuring **baseload power availability** with minimal carbon footprint.

Challenges and the Road Ahead

- Despite the potential, challenges remain:
 - **Political opposition and public safety concerns** about nuclear energy.
 - The **arduous legislative path**, particularly for amending the liability law.
 - Ensuring **regulatory compliance and safety mechanisms** while involving private players.
- However, if these reforms are passed, they could position India as a major hub for next-generation nuclear technologies like SMRs and advanced reactors, boosting energy independence and technological self-reliance.

Conclusion

The Indian government's move to amend nuclear laws and allow private and foreign participation represents a landmark shift in policy. Backed by recent US regulatory clearances, this strategic reform has the potential to not only revitalize India's nuclear energy program but also integrate it more deeply into global clean energy supply chains.

COPYRIGHT'S TRYST WITH GENERATIVE AI

- **Copyright law has historically evolved** in response to technological innovations.
- From its inception in 1710, born out of the printing press revolution, to modern-day digital complexities, **copyright has aimed to strike a balance** between protecting creators and promoting public access to knowledge.
- Today, the **emergence of generative artificial intelligence (AI) has reignited a familiar debate**: Can copyright law keep pace with technological advancements, or does it risk becoming obsolete in the face of rapidly evolving AI capabilities?

Generative AI, Legal Crossroads, Jurisdictional Complexities and Legal Variations

- **Generative AI at Legal Crossroads**
 - **Companies like OpenAI have come under scrutiny** for their training practices, which involve Internet scraping, an automated process where Large Language Models (LLMs) are trained on both copyrighted and non-copyrighted material.
 - This method has **sparked global legal challenges**. In India, the Federation of Indian Publishers and Asian News International have filed infringement suits against OpenAI, **alleging unauthorised use of their works**.
 - Similar **legal actions are unfolding in the United States**.
 - Notably, **OpenAI has responded by introducing an “opt-out” mechanism, enabling content owners to exclude their materials** from future training sets.
 - In the Indian context, **Professor Arul George Scaria, serving as amicus curiae, has emphasised the need for courts to consider the feasibility of unlearning copyrighted content** and to ensure that AI development does not come at the cost of access to legitimate information.
- **Jurisdictional Complexities and Legal Variations**
 - A significant hurdle in resolving these disputes lies in the **varying interpretations of copyright exceptions across jurisdictions**.

Current Affairs - 19 May 2025

- Unlike the U.S., which employs a broad ‘fair use’ doctrine that includes provisions for educational use, **India’s Copyright Act takes an enumerated approach.**
- **Exceptions are explicitly listed and narrowly defined, limiting flexibility. In India, education-related exemptions are confined to classroom use,** making it harder for AI companies to claim legitimate training rights.
- **This stricter legal framework may work in favour of rightsholders in India,** but it also risks obstructing access to knowledge, ironically counteracting the original purpose of copyright.
- Furthermore, **the opt-out mechanism proposed by OpenAI might create a divide between well-established AI platforms with extensive datasets and emerging players who may lack access to high-quality training materials.**
- **Courts must, therefore, consider the need for a level playing field in the generative AI landscape.**

The Way Forward: Reframing Copyright for the Future

- At the core of this debate is a **broader philosophical question: Should copyright law differentiate between human and machine learning?**
- **Human creativity** has always built upon existing works, each generation learning from the last.
- **Generative AI, in many ways, mimics this process.** However, existing legal frameworks do not distinguish between the outputs of human and machine creators, leading to tensions in interpretation and enforcement.
- **A more sustainable solution lies in returning to the foundational principles of copyright.** The law protects the expression of ideas, not the ideas or facts themselves.
- As long as AI systems are using existing information to learn, without replicating the original expression, **they are not necessarily infringing on copyright.**
- **When AI outputs begin to mirror or closely mimic protected works, the current legal mechanisms are equipped to respond appropriately.**

Current Affairs - 19 May 2025

HOW LIVE BAITING ENDANGERS TIGERS IN INDIA

- Live baiting involves offering a live prey animal to a predator. Historically, British hunters used it to lure tigers for easy shooting from hidden perches.
- **Use in Tiger Tourism**
 - In post-Independence India, live baiting became common in tiger reserves for tourism. It allowed visitors to witness tigers feeding, especially in places like Sariska, until the practice was banned for tourism in 1982.
- **Continued Use in Conflict Situations**
 - Despite the ban in tourism, live baiting still continues in conflict scenarios to trap big cats like leopards, using goats or dogs.
- **Present-Day Practice**
 - Today, live baiting is mainly used to feed injured or aging tigers that can no longer hunt, typically offering buffalo calves every week or ten days.

Live Baiting: Prohibited but Not Banned for Injured Tigers

- While live baiting for tiger sightings is banned, using it for old or injured tigers is not formally prohibited under NTCA's (National Tiger Conservation Authority) Standard Operating Procedure (SOP), though it is "not advisable."
- **NTCA's Conservation Principle: Minimal Human Intervention**
 - The SOP emphasizes minimal human involvement in managing wild tiger populations. Artificial feeding goes against the principle of "survival of the fittest," and interferes with natural selection.
- **Risks of Artificial Feeding**
 - Feeding wild tigers may lead to their habituation to humans, increasing the risk of conflict — including attacks on livestock or people.
- **Expert View: Use Only as Emergency**
 - Conservationists warn that baiting should only be a short-term, emergency strategy — for example, for injured tigresses with cubs.

- Even then, it should be limited to once every two weeks and not exceed three months, to prevent tigers from becoming fearless around humans.

Misplaced Kindness vs. Natural Order

- In the wild, death due to injury, starvation, or competition is natural. However, a wave of public sentiment — especially post-2005 Sariska crisis — led to increasing human intervention under the guise of compassion.
- Human-driven compassion, though well-intentioned, often disrupts natural wildlife dynamics — leading to dependency, loss of survival instincts, and greater risks for both tigers and humans.
- **The Case of the Guda Cubs: Raised But Not Wild**
 - Following the poisoning of the Guda tigress in 2008, her cubs were regularly baited with buffalo calves.
 - Raised without learning to hunt, the male (T36) was later killed by a wild rival.
 - His sister (T37) survived due to the lower threat female tigers face from rivals.
- **Simba's Story: Tragedy of Dependency**
 - Simba, another cub raised on bait after his mother's death, died from porcupine quill injuries after a failed hunt — a result of his lack of survival skills in the wild.
- **Geriatric Care for Tigers: Compassion or Interference**
 - By 2010, baiting extended to aged tigers like Machhli and Anantpura male (T2).
 - T2 eventually died too weak to hunt, while Machhli lived unnaturally long in the wild — aided by human-supplied bait for seven years until 2016.
- **The Expert View: Protect, Don't Pamper**
 - Experts emphasize that wild tigers do not need pet-like care.
 - The best conservation strategy is preserving natural habitats and prey — and letting nature take its course.