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DAILY EDITORIAL ANALYSIS

TOPIC

INDIA'S INTERESTS MUST GUIDE SPACE PARTNERSHIPS

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Context

- China's recent position on space governance has renewed debate over international space rules, prompting India to balance its Artemis commitments with strategic autonomy.

About the Space Sector and the Need for Global Space Governance

- Outer space has evolved from a domain of **scientific exploration** into a **strategic, commercial and geopolitical arena**.
- Satellites now support communication, navigation, weather forecasting, agriculture, disaster management, financial transactions and national security.
- The growing participation of private companies, increasing space debris, satellite-based military operations and the possibility of lunar resource extraction have exposed gaps in existing international regulations.

Need For Global Space Governance

- **Preventing Conflict:** To avoid the militarisation and weaponisation of outer space.
- **Equitable Access:** To ensure developing countries have fair access to space-based resources and technologies.
- **Environmental Sustainability:** To regulate space debris and prevent harmful interference with satellites.
- **Commercial Regulation:** To establish accountability for private companies undertaking space activities.
- **Conflict Resolution:** To develop transparent mechanisms for addressing disputes over lunar resources and orbital activities.
- China's recent proposals seek to strengthen the United Nations' role in space governance and provide developing countries with a greater voice.
  - However, they reflect growing geopolitical competition over who shapes international space rules.

Existing International Legal Framework

- **Outer Space Treaty, 1967:** It prohibits national appropriation of celestial bodies and restricts the placement of weapons of mass destruction in orbit.
- **Rescue Agreement, 1968:** It establishes obligations regarding assistance to astronauts in distress.
- **Liability Convention, 1972:** It establishes state responsibility for damage caused by space objects.
- **Registration Convention, 1975:** It requires states to maintain and share information about launched space objects.
- **Moon Agreement, 1979:** It addresses the exploration and use of the Moon and its resources.
  - However, these frameworks were developed when space activities were largely government-controlled. They provide limited clarity on contemporary challenges such as commercial space mining, private satellite networks and emerging military applications.
- **Artemis Accords (2020):** It was led by the United States, providing additional principles for peaceful lunar exploration, transparency, interoperability and the responsible utilisation of space resources.
- Similarly, **China and Russia** have promoted a **legally binding treaty** on preventing an arms race in outer space.

India's Position and Efforts in Global Space Governance

- India follows a balanced approach that combines international cooperation, peaceful exploration and strategic autonomy.
- **Major Initiatives Include:**
  - **Artemis Accords (2023):** India became a signatory in June 2023, supporting principles of peaceful exploration, transparency and responsible space resource utilisation.

- **Indian Space Policy, 2023:** It encourages private-sector participation, commercialisation and international collaboration while strengthening India's space capabilities.
- **BRICS Engagement (2026):** India supported negotiations on space arms control and recognised the Russian-Chinese draft treaty as an important contribution to preventing an arms race in space.
- **International Cooperation:** ISRO has developed partnerships with several countries through satellite launches, joint missions, capacity-building and technology collaboration.
- **IN-SPACe Reforms:** The organisation promotes private participation and facilitates collaboration between Indian and international space industries.

- India's developmental experience provides an opportunity to strengthen cooperation with Global South countries through affordable satellite services, disaster management and agricultural applications.

Major Challenges for India

- **Geopolitical Competition:** India needs to navigate competing US-led and China-Russia-led approaches without becoming constrained by either strategic bloc.
- **Regulatory Gaps:** Existing international treaties lack sufficiently detailed provisions for commercial space mining, private satellite operations and emerging security threats.
- **Space Militarisation:** China's 2007 anti-satellite test generated thousands of debris fragments. India's own demonstrated anti-satellite capability highlights the importance of responsible behaviour and arms control.
- **Technological Dependence:** Excessive reliance on foreign technology, satellite infrastructure and critical components can create strategic vulnerabilities.
- **Unequal Access:** Developing countries risk becoming dependent on technologies and services controlled by a handful of powerful governments and corporations.
- **Strategic Trust Deficit:** India's geopolitical differences with China limit the possibilities of deeper technological cooperation, particularly where critical infrastructure and national security are involved.

Way Forward: India's Strategic Priorities

- **Strengthen Multilateral Diplomacy:** Utilise the **United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS)** to promote inclusive, transparent and universally acceptable rules.
- **Preserve Strategic Autonomy:** Maintain flexibility in international partnerships while avoiding contradictory commitments.
- **Develop Indigenous Capabilities:** Invest in launch vehicles, satellite manufacturing, propulsion systems, navigation and advanced space technologies.
- **Promote Responsible Space Activities:** Advocate effective debris mitigation, collision-warning mechanisms, transparency and verifiable arms-control arrangements.
- **Empowering Global South:** Expand satellite-based cooperation in agriculture, healthcare, climate monitoring and disaster management.
- **Strengthen Domestic Regulation:** Establish a comprehensive legal framework defining the responsibilities and liabilities of public and private space operators.
- **Ensure Technological Self-reliance:** Evaluate international partnerships based on technology transfer, domestic capacity-building and the ability to operate independently.

Conclusion

- Outer space needs to remain a shared domain governed by cooperation rather than geopolitical dominance.
- India should neither reject international partnerships nor become dependent on them. Its long-term objective needs to be to shape inclusive global rules while developing the technological and institutional capacity to act independently.
- Ultimately, India's strategic autonomy will depend not merely on the partnerships it builds, but on what it can achieve when those partnerships are no longer available.

Daily Mains Practice Question

[Q] Discuss the major challenges in establishing an inclusive global space governance framework and examine India's approach towards balancing international cooperation with strategic autonomy

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