India's Space Policy: Between Strategic Autonomy and Alignment With the United States

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India's evolving space policy reflects and contributes to a shifting global space order. The 1967 Outer Space Treaty (OST) remains the cornerstone of space governance, establishing core principles such as the peaceful use of space, the non-appropriation of celestial bodies, freedom of access, and state responsibility for national activities. Yet those principles, formulated during the Cold War, are broadly framed and poorly suited to today's realities: rising commercialization, growing private sector involvement, and renewed strategic competition in space. Although the OST prohibits the placement of nuclear or other weapons of mass destruction in orbit, it does not ban the transit of nuclear weapons or the use of conventional or anti-satellite (ASAT) weapons. New norms are emerging around long-term sustainability, responsible behavior, and commercial space activity, however, the global space order remains underdeveloped and fragmented.¹

India's engagement with this evolving landscape—through selective alignment, cautious endorsement, or quiet divergence—offers valuable insight into how rising powers navigate and shape global rules. Examining how India's space policy intersects with those emerging norms can reveal much about its broader strategic orientation, particularly in relation to the United States, which is itself recalibrating its approach to space. India's space policy has shifted from prioritizing socioeconomic development to pursuing prestige and national security. Although India often converges with the United States in civil, commercial, and military domains, it remains cautious about some of the norms underpinning space policy in those areas. Instead, India favors bilateralism over multilateralism, strategic autonomy (i.e., the pursuit of its national interests without regard to international ideologies or alliances), and inclusive rulemaking (i.e., the involvement of Global South nations in Western-dominated institutions).

The Evolution of India's Space Policy

India's space policy has undergone significant transformation. Beginning in the early 1960s, India's space program prioritized self-reliance through indigenous capabilities and leveraged space technology for socioeconomic development. This vision was institutionalized when the Indian Space

Research Organisation (ISRO) was established in 1969. Through ISRO, India pursued development, prioritizing the creation of communication and remote-sensing satellites along with practical applications and space transportation systems. This approach took concrete form with the operationalization of the Indian National Satellite System in 1983 and the Indian Remote Sensing program in 1988, both of which provided essential services in meteorology, telecommunications, disaster management, and natural resource monitoring. In parallel, India developed indigenous launch vehicles, progressing from the Satellite Launch Vehicle (SLV-3) in 1980 to more advanced systems, such as the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV).²

Even though the developmental rationale remains central, since the mid-2000s India's space policy has notably shifted toward prestige-driven projects such as high-profile space exploration and toward the development of capabilities tied to national security objectives. This evolution has been accompanied by a growing emphasis on private sector participation and using space as a foreign policy instrument. The expansion and diversification of India's space activities not only mirror global trends but also underscore its ambition for great power status and a strategic recalibration in response to China's growing space power.³

Civilian Space Activities

India's civilian space activities have become increasingly ambitious and important for its international status. The launch of *Chandrayaan-1* in 2008, which confirmed the presence of water molecules on the Moon, marked a turning point.⁴ It was followed by the Mars Orbiter Mission (*Mangalyaan*) in 2013, which made India the first nation globally to reach Mars on its maiden attempt.⁵ Although scientifically modest, the mission carried symbolic and prestigious weight, particularly as a response to China's growing profile in space. In 2018, Prime Minister Narendra Modi announced India's first human spaceflight mission, *Gaganyaan*, which is currently underway.⁶ In August 2023, India became the fourth country to achieve a soft landing on the Moon with the success of *Chandrayaan-3.7* India has also launched scientific missions, such as *Aditya-L1*, its first satellite dedicated to the study of the Sun, and announced plans to build and operate its own independent space station by 2035.⁸

Space Commercialization and Privatization

The commercialization of space has become a defining global trend, with the United States playing a central role in promoting public-private partnerships and shaping emerging practices around commercial space activity. Under Prime Minister Modi, India has begun to align more closely with this shift by gradually opening its space sector to private participation. The government's *Indian Space Policy 2023* plan formalized the role of nongovernmental entities across the entire space value chain.⁹ It also outlined a regulatory framework led by the Indian National Space Promotion and Authorization Center (IN-SPACe), established in 2020, to authorize and oversee private sector participation.¹⁰ In tandem, NewSpace India Limited (NSIL), created in 2019, is tasked with commercial-izing ISRO-developed technologies and services.¹¹

Those reforms have fostered a growing private space ecosystem, illustrated by the 2022 launch of *Vikram-S*, India's first privately built rocket.¹² In 2024, the Indian government liberalized its foreign direct investment policy in the space sector, allowing up to 100 percent of foreign investment in the manufacturing of space components and up to 74 percent in satellite-related activities under the automatic route.¹³ That same year, IN-SPACe released a formal set of norms, guidelines, and procedures to operationalize the 2023 policy.¹⁴ According to a report released by the Federation of Indian Chambers of Commerce and Industry with Ernst and Young, India's space economy is projected to grow from \$8.4 billion in 2022 to \$44 billion by 2033, potentially increasing its global share from 2 percent to 8 percent.¹⁵ Reflecting this trend, in March 2025, Starlink, SpaceX's satellite internet service, signed partnership agreements with the telecommunications firms Reliance Jio and Bharti Airtel to expand satellite broadband coverage across India, pending final government approval.¹⁶

Military Space

Echoing other major space powers, India has intensified its efforts to enhance its military space capabilities. Although India has not yet issued a formal national defense strategy, a clear articulation of this focus appears in the 2017 *Joint Doctrine of the Indian Armed Forces*: the doctrine identifies space as a force multiplier and highlights its importance for intelligence, surveillance, reconnaissance, navigation, communications, and network-centric warfare. The document also notes space is emerging as a domain, much like land, sea, air, and cyberspace, through which future activities are expected to expand.¹⁷

Since the early 2000s, ISRO has launched a range of dual-use satellites. It has also developed the Navigation with Indian Constellation (NavIC), a regional positioning system offering both civilian and encrypted military services, along with the GPS Aided Geo Augmented Navigation (GAGAN) system, which supports aviation and has potential defense utility. Furthermore, ISRO has launched dedicated military satellites, including the GSAT-7 for the Indian Navy, GSAT-7A for the Air Force, and the Electromagnetic Intelligence Satellite.

India has also demonstrated counterspace capabilities. In March 2019, it conducted a direct-ascent ASAT test, named Mission Shakti, destroying one of its own satellites in low Earth orbit. This made India the fourth country to showcase such a capability, marking a departure from its traditionally restrained approach to space weaponization.

Notably, the test was conducted at a low altitude to ensure the resulting debris would quickly deorbit, an explicit attempt, according to Indian officials, to align with the emerging norm of minimizing space debris to promote the long-term sustainability of outer space activities. This contrasted China's 2007 ASAT test, which created a large and persistent debris field and drew widespread international condemnation.

Although officials emphasized the test's limited scope and debris-mitigation measures, its timing just before national elections—and public announcement by Prime Minister Modi highlighted its symbolic and political significance. Analysts view the test as driven by strategic concerns, particularly China, as well as domestic political considerations and prestige.¹⁸ Beyond defense capabilities, India has also established institutions to integrate space more effectively into its national security and defense architecture, especially after the 2019 ASAT test. In 2019, the government established the Defence Space Agency to address emerging space-based threats and enhance operational readiness in space. To support the new agency with research and technical expertise, it also approved the creation of the Defence Space Research Organisation in the same year, tasked with advancing space warfare technologies.¹⁹ ISRO also launched Project NETRA (Network for Space Objects, Tracking, and Analysis) in 2019, a space situational awareness (SSA) system designed to monitor and protect Indian space assets.²⁰

Space as a Foreign Policy Tool

A key aspect of India's evolving space policy is the increasing use of space as an instrument of foreign policy. For example, the launch of the South Asia Satellite (GSAT-9) in 2017 under Prime Minister Modi's *Neighborhood First* policy was designed to provide communication, tele-education, and disaster-management services to member states of the South Asian Association for Regional Cooperation (SAARC) on a bilateral basis.²¹ This arrangement reflects India's traditional preference for bilateral engagement over formal regional multilateralism. Interpreted as a move to counter China's growing influence in South Asia, the initiative also marked a shift in India's posture—toward regional leadership and the provision of public goods through space cooperation.²² More recently, at the 2023 Group of Twenty (G20) Summit, Prime Minister Modi proposed a "G20 satellite mission for environment and climate observation," intended to support countries, especially those of the Global South, through shared access to climate and weather data.²³ More broadly, India has signed space cooperation agreements with at least sixty-one countries and five multilateral organizations—most of them in the past five years—reflecting a growing interest in the use of space as a foreign policy tool.²⁴

Taken together, these developments reveal the deeper logic underpinning India's evolving space posture. Across civilian, commercial, and military domains, India has pursued strategic autonomy and relied heavily on bilateral engagement. It is also embracing the commercialization and privatization of space as a normative shift, aligning itself with the United States and other major space powers. In the commercial realm in particular, India has encouraged private and foreign participation, but only within a domestic regulatory framework it controls—an approach reflecting both ambition and caution. India is seeking to establish itself not only as a reliable market for space manufacturing and launch services, but also as a trusted partner for countries, especially in the Global South, with limited space capabilities and aspirations to build their own infrastructure. Those normative preferences, particularly strategic autonomy, selective engagement, and an emphasis on inclusive rulemaking, are evident in India's approach to the international regime for space activities.

India and the International Regime for Space Activities

India is party to all five UN space treaties governing outer space.²⁵ It has also been active in international multilateral forums such as the UN Committee on the Peaceful Uses of Outer Space (UN-COPUOS). India has generally adhered to the core principles underpinning this regime, including the peaceful use of outer space, the non-appropriation of celestial bodies, and the freedom of access and use on a nondiscriminatory basis. India has also demonstrated its support for ensuring the long-term sustainability of space activities. It endorses the United Nations' voluntary guidelines on the long-term sustainability (LTS) of outer space, which promote the safe, responsible, and equitable use of space for future generations.²⁶ Since 2021, India has chaired the LTS working group under UNCOPUOS, furthering multilateral dialogue on the safety and sustainability of space activities.²⁷ ISRO has also taken voluntary steps to align with the Inter-Agency Space Debris Coordination Committee guidelines, as illustrated by the controlled deorbiting of the Megha-Tropiques satellite in 2023.²⁸ Despite this support, India still prioritizes both prestige and national security.

With regard to space security, India has consistently emphasized its opposition to the weaponization of outer space and affirmed it is not participating in any space arms race.²⁹ It continues to support the negotiation of a legally binding instrument on the Prevention of an Arms Race in Outer Space (PAROS) within the UN framework. Although India acknowledges universal, nondiscriminatory norms, and transparency and confidence-building measures can play a constructive role, it sees them as complementary rather than substitutes for binding commitments. India has also expressed concern about the subjectivity involved in interpreting space behaviors and perceived threats—particularly in the context of the UN Open-Ended Working Group (OEWG) on reducing space threats through norms, rules, and principles of responsible behavior. On these points, India has aligned more closely to China than the United States and its allies, which emphasize behaviorbased norms and voluntary commitments over legally binding agreements.³⁰ This cautious, selective multilateralism is also evident in India's engagement with recent U.S.-led space security initiatives.

The Future of U.S. -India Space Relations

Despite some early constraints, U.S.-India space cooperation has evolved into a robust strategic and technological partnership. Agreements such as the 2004 Next Steps in Strategic Partnership and the 2005 Civil Nuclear Agreement have paved the way for high-tech collaboration, including in space. A noteworthy example is the joint NASA–ISRO Synthetic Aperture Radar mission, scheduled for launch in 2025, which reflects shared interests in climate monitoring and sustainable Earth observation. India and the United States have also expanded cooperation in human spaceflight, with Indian astronauts set to train at NASA, and an Indian astronaut scheduled to participate in Axiom Space's Ax-4 private mission to the International Space Station.³¹ This is a significant development, given that Indian astronauts trained for the *Gaganyaan* mission in Russia.³²

India's decision to sign the U.S.-led Artemis Accords in 2023 marked a further milestone in bilateral space cooperation. The accords set out nonbinding principles for lunar exploration, transparency, interoperability, and resource utilization. This move departs from India's traditional preference for a multilateral, legally binding framework negotiated through the United Nations, especially considering it is one of the few countries to have ratified the 1979 Moon Agreement. In this way, India's decision underscores both a recognition of the risks of being sidelined in emerging governance structures and a desire to have a greater say in shaping the evolving rules of lunar exploration.³³

The partnership gained further strategic depth with the 2023 launch of the U.S.-India Initiative on Critical and Emerging Technology (iCET), which included civil, commercial, and defense space

cooperation.³⁴ The U.S. Space Force even partnered with Indian startups Bharat Semi and 3rdiTech, with support from the India Semiconductor Mission, to establish India's first national security–focused semiconductor fabrication facility.³⁵

During Prime Minister Modi's February 2025 visit to Washington, iCET was rebranded as the U.S.-India TRUST (Transforming the Relationship Utilizing Strategic Technology) initiative. TRUST builds on iCET's cross-sectoral framework while placing greater emphasis on artificial intelligence, semiconductors, and critical minerals. Prime Minister Modi and President Donald Trump also reaffirmed the centrality of space cooperation under this new initiative, including in civil, commercial, and human spaceflight activities. To support those objectives, the INDUS Innovation bridge, modeled after INDUS-X, was launched to facilitate joint ventures and investment in emerging technologies, including space.³⁶

India is also involved in space cooperation within the Quad (the informal quadrilateral security dialogue between the United States, Australia, India, and Japan) and has accordingly deepened bilateral space partnerships with Australia and Japan as well, though the scope and focus of engagement differ across those relationships.³⁷

Despite this increasing convergence in space cooperation, notable instances of normative divergence remain. India abstained from voting on the 2022 U.S.-led UN resolution calling for a ban on debris-generating direct-ascent ASAT missile testing.³⁸ Likewise, it abstained on the 2024 resolution on reducing space threats through norms, rules, and principles of responsible behaviors, a measure that received overwhelming support from the United States and its European allies.³⁹ Those votes reflect India's unease with norm-making processes it perceives as exclusionary or insufficiently representative, as illustrated by its earlier objections to the European Union's proposed International Code of Conduct for Outer Space Activities. Those instances highlight India's broader hesitancy to embrace nonbinding political instruments shaped without its participation, despite acknowledging their normative value.⁴⁰

As noted earlier, India's statement at the August 2023 OEWG meeting—delivered just two months after signing the Artemis Accords—reaffirmed its support for a legally binding PAROS treaty and expressed reservations about voluntary, behavior-based norms and the subjectivity involved in interpreting space threats.⁴¹ This underscored the enduring ambiguity in India's normative stance. By contrast, India's 2024 intervention at COPUOS under Agenda Item 6 (Ways and Means of Maintaining Outer Space for Peaceful Purposes) reiterated support for TCBMs and voluntary sustainability measures but omitted any reference to a binding legal instrument.⁴² This shift in emphasis could reflect a more calibrated, forum-specific approach to norm promotion—but it also could reflect a recalibration of India's broader position.

Conclusion

Taken together, these dynamics suggest while India is increasingly aligning with U.S. initiatives on operational and technological fronts, its approach to space governance remains cautious, characterized by selective engagement, normative ambivalence, and reticent behavior. The United States should accordingly engage India as a strategic partner and as a distinct normative actor, one shaped by its postcolonial identity and commitment to strategic autonomy. Those factors inform India's emphasis on inclusive, rules-based multilateralism and its skepticism toward initiatives it sees as dominated by great power interests or developed without its meaningful participation.

Prime Minister Modi has been central in energizing India's space policy. However, he could face bureaucratic resistance, including from ISRO, DRDO, and the Ministry of External Affairs, where some could feel things are moving too fast or drifting from India's traditional role as a space leader oriented to the Global South.

As India's space ecosystem becomes increasingly commercialized, a defining trade-off will lie between enabling innovation and maintaining control over strategic technologies and space-derived data. Even though India has traditionally avoided taking active positions in global governance, growing commercial and security interests could compel more visible engagement in efforts dealing with orbital debris mitigation, SSA, and space traffic management.

In conclusion, as space becomes increasingly congested, contested, and commercially driven, India is no longer a peripheral player but an emerging norm shaper—straddling the line between ambition and autonomy in a rapidly evolving space order.

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