

Press Release on the 410th Report of the Department-related Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change

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The Department-related Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change under the Chairmanship of Shri Bhubaneswar Kalita, M.P., Rajya Sabha presented/laid on the Table its 410th Report on Demands for Grants (2026-27) of the Department of Space, in both the Houses of Parliament on the 25th March, 2026. The Committee considered and adopted the draft Report in its meeting held on 24th March, 2026. The Recommendations/observations made by the Committee in this Report are enclosed.

2. The entire Report is also available on <https://sansad.in/rs>.

410th Report on Demands for Grants (2026-27) of the Department of Space

RECOMMENDATIONS/OBSERVATIONS-AT A GLANCE

BUDGETARY ALLOCATION FOR THE DEPARTMENT OF SPACE IN THE UNION BUDGET 2026-27:

The Committee notes that the Department of Space had projected an outlay of ₹15,604.80 crore to the Ministry of Finance under Demand No. 95 for the financial year 2026–27. However, the Ministry of Finance approved an outlay of ₹13,705.63 crore, which is about 87.82% of the projected amount. The Committee is of the view that the pattern and extent of fund utilization during the current financial year significantly influence the allocation made in the subsequent year. A careful examination of the Department's expenditure pattern over the years indicates that it has not been able to fully utilize the outlays sanctioned to it. For instance, the Department was allocated an outlay of ₹13,416.20 crore at the BE stage in 2025–26, which was subsequently revised downward to ₹12,448.60 crore at the RE stage. Further, the Department has been able to incur an expenditure of only ₹9,739.72 crore up to 31st January, 2026. Slow pace of expenditure appears to have contributed to the reduction in allocation made to the Department in BE 2026–27 vis-à-vis the projected outlay. In view of the above, the Committee urges the Department to take necessary measures to improve the rate of budget utilization and strive to achieve full utilization of the allocated funds in the coming financial year, so as to avoid any reduction in future budgetary allocations. (Para 12)

DETAILED HEAD-WISE ALLOCATION OF BUDGET 2026-27

The Committee observes that the outlay allocated for ISRO Headquarters and IN-SPACe under the 'Establishment Expenditure' head, INSAT satellite systems under the 'Central Sector Schemes' head, and IIST, NESAC, NARL, and PRL under the 'Other Central Sector Expenditure' head is lower compared to the allocations made in BE 2025–26. The Committee further observes that the allocations

for IN-SPACE and INSAT systems in BE 2026–27 are, in fact, lower than the levels provided in RE 2025–26. Given the significant role of the Department of Space (DoS) in advancing the country's space capabilities and supporting national development, the Committee underscores the need to ensure adequate financial support so that these institutions can effectively discharge their mandates. The Committee particularly emphasizes the importance of the INSAT satellite systems in providing critical communication, broadcasting, meteorological, and disaster management services. Any shortage of funds may adversely affect the maintenance, upgradation, and expansion of these vital systems. In view of the above, the Committee recommends that additional funds may be provided to the Department of Space at the Revised Estimates (RE) stage to ensure that the concerned institutions and programmes are able to function efficiently and fulfill their strategic and developmental objectives.

(Para 19)

ASSESSMENT OF THE PATTERN OF BUDGET UTILIZATION BY THE DEPARTMENT OF SPACE

The Committee observes that the Department of Space has utilized 78.23 per cent of the outlay allocated at the Revised Estimates (RE) stage for 2025–26 as on 31st January 2026. The Committee notes that the Department of Space has historically maintained a commendable record of fund utilization, generally in the range of 96–98 per cent over the years. The Committee is hopeful that the Department of Space will ensure full utilization of the funds allocated to it in the ongoing financial year as well.

(Para 21)

ASSESSMENT OF THE PATTERN OF BUDGET UTILIZATION BY INSTITUTIONS UNDER THE DEPARTMENT OF SPACE

The Committee underscores that fiscal discipline and prudent financial management are essential for ensuring that public funds are utilized efficiently, transparently, and in a manner that delivers the intended outcomes. Proper planning and timely expenditure not only facilitate smooth implementation of programmes and projects but also prevent delays, cost escalations, and bunching of expenditure towards the end of the financial year. The Committee notes with concern that institutions such as HSFC, IIRS, ISTRAC, LEOS, MCF, and IN-SPACE have not been able to utilize 75 per cent of the funds allocated to them within the stipulated period. Such trends, if not addressed in time, may affect the pace of programme implementation and the effective delivery of institutional mandates. The Committee is of the view that optimal utilization of funds is as important as the allocation of funds itself. Accordingly, the Committee recommends that the Department of Space strengthen its monitoring mechanisms and closely review the spending patterns of these institutions on a quarterly basis. The Department should ensure timely and proportionate disbursement of funds, identify the reasons for slower expenditure, and take corrective measures to improve the pace and efficiency of utilization.

(Para 23)

VACANCIES

The Committee notes that the Department of Space has been facing a significant shortage of human resources owing to the accumulation of vacancies from 2020–21 onwards. The Committee recognizes that human resources constitute a critical component in the successful planning, execution, and management of complex space missions and programmes undertaken by the Department. Adequate availability of skilled scientific, technical, and administrative personnel is therefore essential for sustaining the momentum of the national space programme and achieving the strategic objectives of the Department of Space. While taking cognizance of the measures initiated by the Department to address the issue, including the re-initiation of recruitment processes, adoption of GATE score-based recruitment, conduct of Computer-Based Tests, and establishment of mechanisms for periodic review

of recruitment actions, the Committee notes the Department's commitment to fill 2,383 vacant posts by December 2026. The Committee recommends that the Department of Space make concerted efforts to adhere to the proposed timelines and ensure that the identified vacancies are filled within the stipulated period. The Committee further urges the Department to take mission-mode measures to address the backlog of vacancies, including the remaining posts arising from cadre restructuring and other categories to ensure that the Department and its Centres/Units are adequately staffed to effectively discharge their responsibilities and support the growing demands of India's space sector.

(Para 28)

SPACE VISION 2047

The Committee notes that under India's Space Vision 2047, key programmes such as the Gaganyaan Mission, Bharatiya Antariksh Station (BAS) and the Next Generation Launch Vehicle (NGLV) represent major milestones for advancing India's capabilities in human spaceflight, space infrastructure and next-generation launch systems. These initiatives are critical for strengthening India's technological self-reliance, expanding opportunities for scientific research in microgravity, and enhancing the country's position as a leading global space power. The Committee notes the reasons advanced by the Department for slow utilization of funds for the Gaganyaan mission and hopes that the Department will be able to overcome these obstacles without compromising the crew safety. The Committee hopes that the relatively slow pace of expenditure will not adversely impact the timely progress of these strategically important missions. The Committee, therefore, recommends the Department of Space to ensure optimal utilization of funds and make concerted efforts to adhere to the proposed timelines so that these missions are implemented without delays and the objectives of India's Space Vision 2047 are achieved in a timely and efficient manner.

(Para 38)

LUNAR AND INTER PLANETARY MISSIONS

The Committee notes the significance of India's forthcoming space missions, namely Chandrayaan-4, Chandrayaan-5 and the Venus Orbiter Mission. These missions represent important milestones in India's expanding space exploration programme and are expected to substantially enhance the country's scientific capabilities in planetary exploration. The Committee is of the view that successful execution of these missions will not only deepen scientific understanding of the Moon and Venus, but will also significantly strengthen India's standing in the global space community and further position the country as an emerging leader in space science and planetary exploration among the comity of nations. At the same time, the Committee notes with concern the slow pace of expenditure under these missions so far. In the case of Chandrayaan-4, an allocation of ₹150 crore was made at the Budget Estimate (BE) stage for the financial year 2025–26, which was subsequently revised downward to ₹21 crore at the Revised Estimate (RE) stage, while the actual expenditure incurred up to 31st January 2026 stood at ₹34.60 crore. Similarly, under Chandrayaan-5, an allocation of ₹2 crore was made at the BE stage for 2025–26, which was later revised upward to ₹14 crore at the RE stage; however, the actual expenditure incurred as of 31st January 2026 was only ₹0.58 crore. With regard to the Venus Orbiter Mission, the Committee notes that for the financial year 2024–25, the BE allocation of ₹1 crore was revised to ₹2.10 crore at the RE stage, but no expenditure was incurred during the year. Further, in the financial year 2025–26, the BE allocation of ₹50 crore was revised downward to ₹29.50 crore, while the actual expenditure incurred up to 31st January 2026 was ₹5.12 crore. The Committee is apprehensive that, if the pace of expenditure and project implementation continues at this level, the timely

accomplishment of these missions as per the proposed timelines may become challenging. At the same time, the Committee agrees with the Department's submission that scientific missions of this nature are inherently iterative in character and are often constrained by several technical and operational factors, including design finalization, availability of specialized components, vendor readiness and mission configuration requirements. The Committee is of the view that these missions are presently transitioning from the initiation phase to the execution phase, and therefore the cash flow requirements are likely to increase substantially in the coming year. In view of the strategic and scientific importance of these missions, the Committee strongly recommends that the Department take proactive steps to improve the pace of fund utilization and project implementation. The Committee further recommends that the Department institute robust institutional mechanisms for periodic monitoring and review of the progress of these missions at appropriate levels. (Para 53)

NAVIGATION WITH INDIAN CONSTELLATION (NavIC)

The Committee notes the strategic significance of the NavIC system, India's indigenously developed regional satellite-based navigation network. The Committee emphasizes that expanding the coverage, reliability and adoption of NavIC in the near future will be vital for enhancing India's technological self-reliance and strategic autonomy. However, the Committee notes with concern that out of the total 12 satellites envisaged under the NavIC constellation, only 8 satellites are currently functional, and some of the satellites are unable to provide positioning, navigation and timing services due to malfunctioning of onboard atomic clocks. The Committee appreciates that ISRO has successfully developed indigenous atomic clocks and recommends complete switchover to indigenous atomic clocks at the earliest to minimize dependence on foreign vendors. The Committee urges the Department to ensure the timely replacement of non-functional satellites and to adopt appropriate measures for improving the reliability and operational readiness of the NavIC constellation so that this strategic national asset can function at its full potential. The Committee also recommends the Government to provide adequate funds to the Department of Space to achieve these objectives.

(Para 58)

LAUNCH PAD INFRASTRUCTURE

The Committee notes that robust launch pad infrastructure forms the backbone of any nation's space transportation capability. The ability to conduct launches depends significantly on the availability of launch facilities. In this regard, the Committee appreciates the initiatives taken by the Department of Space in expanding the country's launch infrastructure, including the establishment of the Third Launch Pad at Satish Dhawan Space Centre and the development of the SSLV Launch Complex at Kulasekarapattinam. At the same time, the Committee observes that the existing launchpad infrastructure at Sriharikota comprises the First Launch Pad, which is nearly three decades old, and the Second Launch Pad, which has been in operation for over two decades. While these facilities have served the nation well, the Committee notes that India's space transportation system currently remains largely dependent on these two launch pads. Given the growing scale and complexity of India's space programme, the Committee is of the view that relying on a limited number of launch pads may pose operational risks. In this context, the Committee also draws attention to past instances such as the failure of launch infrastructure at the Baikonur Cosmodrome, which had a significant impact on Russian launch operations and highlighted the vulnerabilities associated with dependence on limited launch facilities. The Committee therefore considers it imperative that India proactively strengthen and diversify its launch infrastructure. The Committee notes that the proposed Third Launch Pad at Sriharikota is expected to become operational by 2029–30 and will significantly augment the country's launch capabilities. However, considering the expanding scope of India's space activities, the increasing demand for satellite launches, and emerging missions including human spaceflight and planetary exploration, the Committee is of the view that the country will require additional launch infrastructure

in the long run. The Committee therefore recommends the Department to assess whether the existing and upcoming infrastructure, including the Third Launch Pad and the SSLV Launch Complex at Kulasekarapattinam, will be sufficient to meet India's future launch requirements. Further, considering the long gestation period involved in the planning and construction of launch pads and associated facilities, the Committee recommends the Department to undertake a comprehensive long-term assessment of the number of launch pads and spaceports that India may require over the next thirty years, keeping in view the ageing launch pad infrastructure, increasing launch frequency and the country's growing space ambitions. Further, the Committee strongly recommends the Department to take all necessary steps to ensure the timely completion and operationalization of the Third Launch Pad at Sriharikota and the SSLV Launch Complex at Kulasekarapattinam. (Para 68)

PROPULSION TECHNOLOGY

The Committee notes that the development of semi-cryogenic propulsion technology is of considerable strategic importance for India's space programme. The Committee recalls that India had faced significant challenges in the past in accessing critical propulsion technologies, particularly during the early stages of the development of cryogenic engines, when international technology transfer restrictions necessitated the pursuit of indigenous capabilities. In this context, achieving self-reliance in semi-cryogenic propulsion assumes great importance for strengthening the country's launch vehicle capabilities. The Committee further observes that several major space-faring nations rely on semi-cryogenic engines for high-thrust booster stages due to their operational efficiency, higher propellant density and suitability for heavy-lift launch vehicles. The successful development of such engines would enhance India's ability to launch heavier payloads, support next-generation launch vehicles and expand the scope of future missions. In view of the strategic, technological and operational advantages associated with this capability, the Committee recommends the Department to accord high priority to the development of the semi-cryogenic engine and expedite efforts to realise this critical technology at the earliest. (Para 71)

INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY (IIST)

The Committee recognizes the significant role played by the Indian Institute of Space Science and Technology (IIST) in advancing education, research, and human resource development in the space sector. Since its establishment, the institute has contributed meaningfully to strengthening the national space programme and nurturing skilled professionals for the Department of Space and allied organizations. The Committee is of the view that conferment of INI designation would also strengthen IIST's global visibility and foster deeper collaborations with leading international space agencies and research institutions, while allowing the institute greater operational flexibility, including the establishment of off-campus centres and continued participation in the JEE Advanced admission framework. In view of these strategic advantages, the Committee strongly recommends that INI status be granted to IIST at the earliest. (Para 78)

INSTITUTIONAL ARCHITECTURE OF INDIA'S SPACE SECTOR

The Committee commends the contributions made by Antrix Corporation Limited and New Space India Limited (NSIL) towards the growth of India's space sector and the development of a vibrant space economy. However, the Committee notes with serious concern the sharp decline in the turnover of Antrix Corporation Limited, which has decreased from about ₹654 crore in 2020–21 to ₹76.77 crore in 2024–25. The Committee also observes that the turnover of NSIL has witnessed a declining trend over the years, particularly in respect of revenue generated from launch services. The Committee has been given to understand that the Internal and Extra Budgetary Resources (IEBR) mobilised by Antrix and NSIL are retained by these entities to fund capital expenditure and support various development projects. In this context, the Committee emphasises that higher revenue generation would directly

translate into greater availability of funds for investment in capital infrastructure and further development of the space sector. The Committee, therefore, recommends that the Department should take proactive and concerted steps to enhance resource mobilisation by these entities. This may include pursuing commercialization opportunities more vigorously, strengthening marketing strategies, and exploring new domestic and international markets for launch services, satellite services, and other space-based applications, so as to augment revenue generation and support the continued expansion of India's space economy. (Para 88)

SPACE LAW

The Committee notes that, at present, space-related activities in the country are not governed by a comprehensive legislative framework and are largely guided by policy documents, vision statements, and mission guidelines. In view of the rapid expansion of space activities in recent years, their increasing strategic and security implications, and the growing participation of Non-Governmental Entities (NGEs) in the space sector, the Committee is of the view that there is a clear and pressing need for a comprehensive legal framework to regulate, authorize, and oversee space activities in the country. The Committee, therefore, welcomes the initiative of the Department of Space in drafting a Bill to regulate space activities and expects that the proposed legislation will provide a robust, transparent, and forward-looking framework for the orderly development of the space sector in India. At the same time, the Committee observes that the authorization mechanism under the Indian Space Policy, 2023 currently applies to Government entities, including ISRO and other agencies functioning under the Department of Space. The Committee notes that these agencies already operate under the administrative oversight of the Department of Space and their activities are subject to approval by the Department as well as the Space Commission. In such a scenario, the requirement for these entities to obtain authorization from IN-SPACe, an institution that also functions under the Department of Space, may result in an additional procedural layer within the Government system. Keeping in view the principle of *"Minimum Government, Maximum Governance"*, the Committee is of the considered opinion that the authorization mechanism should primarily be intended to regulate and facilitate the activities of Non-Governmental Entities entering the space sector. The Committee, therefore, recommends that the requirement of authorization for ISRO and other agencies functioning under the Department of Space may be gradually dispensed with. The Committee further recommends that an appropriate provision to this effect may be incorporated in the proposed Space Activities Bill so as to streamline governance, avoid procedural duplication, and ensure greater administrative efficiency within the space sector. (Para 93)

TECHNOLOGY TRANSFER AND PRICING IN INDIA'S SPACE SECTOR

The Committee expresses concern over the transfer of technologies in the space sector at disproportionately low prices relative to their commercial potential. It has been observed that technologies are often transferred to private players at undervalued rates, allowing these partners to earn significant profits while the originating institutes receive only a marginal share of the value created. Furthermore, there is no credible mechanism to verify whether the benefits of low-cost technology transfers are being passed on to the intended target users for whom the technologies were developed. In view of this, the Committee recommends that the Department of Space should consider adopting a more competitive and market-aligned pricing framework for technology transfer. Licensing fees should appropriately reflect the true commercial value, uniqueness, and societal impact of technologies developed through public funding. Additionally, the Committee recommends the establishment of clear guidelines to determine technology transfer costs, and that the Standing Committee constituted by IN-SPACe for evaluating technology fees should calculate fees in accordance with these guidelines. To ensure transparency and accountability, the Committee further recommends that all technology transfer agreements be subject to periodic third-party audits.

START-UPS IN THE SPACE SECTOR

The Committee appreciates the initiatives taken by the Government of India to promote start-ups in the space sector. The Committee also notes the rapid emergence of start-ups in India's space ecosystem, which is a positive development for the growth and diversification of the sector. The Committee observes that ISRO continues to rely on foreign vendors for certain critical components and technologies. For instance, the atomic clocks used in NAVIC system were imported from a foreign vendor and their malfunctioning rendered some satellites defunct making them unable to provide the intended positioning, navigation, and timing services. Additionally, scientific missions are often delayed due to supply chain bottlenecks, highlighting vulnerabilities in the domestic space manufacturing ecosystem. In this context, the Committee is of the view that start-ups should be actively leveraged to bridge these critical gaps and complement ISRO's capabilities. Encouraging diversification in the domestic space industry is crucial to reduce dependence on foreign suppliers. Therefore, the Committee recommends the Department of Space to identify areas where the country is still reliant on foreign vendors and proactively support start-ups in these domains through funding, technology transfer, and market access.

(Para 99)

APPLICATIONS OF SPACE SCIENCE AND TECHNOLOGY

The Committee notes with concern that forest cover in India is under pressure and requires closer monitoring. At present, the Forest Survey of India publishes the biennial India State of Forest Report which assesses the extent of forest and tree cover across the country. The Committee emphasizes that forests play a crucial role not only in carbon sequestration and climate mitigation but also in supporting the country's economy and ecological balance. In view of their strategic and environmental importance, the Committee feels that forest cover monitoring should be carried out more frequently, preferably at least on a quarterly basis, rather than biennially. The Committee appreciates that the Department of Space has developed a web-based Forest Loss Information System for the North Eastern Region, which detects annual changes in forest cover using satellite imagery. Additionally, the Forest Resources Analysis and Monitoring System (FRAMS) implemented for the Government of Manipur generates deforestation alerts on a monthly basis using time-series satellite data. These initiatives represent important steps towards more frequent monitoring of forest resources. The Committee observes that Brazil monitors its forest cover, particularly in the Amazon region, on a daily basis through advanced satellite systems. The National Institute for Space Research (INPE), Brazil operates the DETER system (System for Alerts of Deforestation and Degradation) which provides near real-time, daily alerts on deforestation and forest degradation, enabling immediate action against illegal activities. In this context, the Committee recommends ISRO to examine the functioning of such real-time monitoring systems, collaborate with Forest Survey of India and the Ministry of Environment, Forest and Climate Change, and develop a similar operational system for India.

(Para 101)

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