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BUILDING INDIA'S SPACE CAPABILITIES: A FRAMEWORK FOR LOCAL SUPPLY CHAIN
DEVELOPMENT AND INNOVATION

Abstract

Building a strong local supply chain for space components has become important as India sets out on an ambitious path to improve its standing in the global space economy. India is plagued by issues like import dependency and a lack of domestic innovation so this plan proposes a framework to help India improve its position in the space race. It is based on three main pillars: preferential procurement policies that support qualifying startups and prioritise local manufacturers; the National Space Component Indigenisation Mission, which aims to localise critical components as much as possible through cooperation with research institutions; and the use of existing Space Technology Parks in order to maximise resources and assist manufacturers. The framework is focused on creating an adaptable structure that can quickly adjust to new advancements in technology and the industry itself and on cooperation between ISRO and the private sector through partnership agreements. Funding for projects focused on cutting-edge materials and technology will increase due to the collaboration between the public and private sector. Additionally, cooperative talent development initiatives with schools and colleges so that more people can inspire more people to seek careers in the space sector while also cultivating the skills necessary to meet business demands. Lastly, India's competitive advantage will be strengthened by effective international partnerships that will make technology transfer and access to global markets easier. In addition to reducing reliance on imports, this framework solidifies India's position in the global space economy. India can realise its goal of being a global leader in space technology while maintaining economic viability and national security by cultivating an innovative ecosystem based on cooperation, investment, and regulatory support.