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SPACE SUSTAINABILITY: A CATALYST FOR SOCIO-ECONOMIC DEVELOPMENT IN EMERGING SPACE NATIONS

Abstract

Space development is increasingly becoming a major driver of socio-economic development, especially for emerging space countries keen on harnessing their potential for growth. This paper highlights the essence of space sustainability as a determining factor for maintaining access to and use of space resources over time. Safely deploying satellites, reducing space debris, and enhancing policy frameworks are good practices that will help emerging nations to increase their returns of space science and technology in geospatial intelligence, telecommunications, environmental monitoring, disaster management and agriculture. Sustainable space technology implementation enables involvement in the global space ecosystem at a reduced cost enhancing innovation and fostering collaboration. Also, space sustainability ensures long-term economic stability, national security, and scientific advancement. The self-sufficient space economy of emerging space nations can realize the fullest socio-economic and international competitiveness edge by integrating sustainability into space development initiatives. This paper advocates space sustainability with a focus on defining necessary policies, technologies, and partnerships that are required to achieve equity and sustainability in the use of outer space.