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Strategic Risk Management for successful space programmes (6)

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FUTURE INDIAN SPACE – RISK ASSESSMENT AND ORGANISATIONAL STRUCTURING

Abstract

Indian Space, over the past 50 years, has reached excelling heights and has enabled widespread utilization of space services in different areas of national economy. Present capabilities and capacities of Indian Space are mainly in the unitary capabilities of the national space agency. The national space agency of India has emphasised future 15 years of Indian Space Programme to be contributing to the national developmental goals through missions of Space Transportation Systems, Space Infrastructure (satellites), Space Applications, Capacity Building and Institutional Support.

In earlier suo-moto studies, National Institute of Advanced Studies (NIAS) has outlined the future 10-20 years of policy perspectives for Indian Space development and also outlined the perspectives of how a National Space Eco-system would emerge – evolving from the present national space agency into a “public-private-academia triad”. Meeting future domestic needs AND commercial access to global market of space will require a quantum jump in capabilities and capacities. It has been earlier analysed that about INR 3 trillion is likely to be invested into about 200-300 estimated missions in coming 15-20 years – encompassing EO, satellite communications, positioning, space science, planetary missions, operational and advanced launch access missions and possible initiation of a human space flight programme.

NIAS continues its suo-moto effort and has now studied the future space programme risks and organizational structuring – calling for “critical shifts” from present course-definition and growth changes. The study has considered evolving risk sharing with industry besides many international collaborative relationships and covers impacts and likelihoods for all planned initiatives in space transportation, earth observations, space communications, navigation and space exploration missions and applications taking cognisance of the trends like increasing private sector participation, emerging technological trends that impact global market and the national/international regulatory changes. Finally, the paper also addresses a major imminent need for an overall organizational re-structuring of space activities in India – with inclusion of national space agency, space industries and space academia. At national level, the emergence of a renewed over-arching “national space command” would define space strategy to develop the national eco-system of civilian/industrial/security space activities. At down-stream level, newer organizational structures for civilian space development, industrial space development, security space programmes and RD and technology development would emerge.

The paper would cover above aspects and brings importance of risk management planning perspectives and organizational re-structuring for the future growth and development of Indian space activities.