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SPACE EXPLORATION AS AN ELEMENT OF SPACE PROGRAMMES IN DEVELOPING NATIONS.

Abstract

In the first decades of the Space Age, space exploration activities used to be the preserve of developed nations, and in particular the leading space powers. In contrast, the space programmes of developing nations focused on the societal benefits of space science and technology.

However, as these developing countries become more capable actors in space, they, too, have started to include exploration activities in their national space programmes. Examples include India's Chandrayaan mission, and China's Chang'e 1 and 2 missions.

Space exploration need not be limited to lunar and planetary missions, however. If one understands the term "space exploration" to encompass scientific missions whose objective is the study of the space environment, then many countries may be seen to be part of this endeavour, either directly through contribution of instruments and payloads, or less so, through participation in the scientific analysis of data returned from such missions.

Non-state actors are also beginning to play a role in this domain. Initiatives such as the Google Lunar X-Prize provide further opportunities for actors from developing countries to participate in space exploration activities.

This paper surveys the role of space exploration in the space programmes of developing nations, the modality of participation in space exploration activities and the rationale for participation in such activities.