

Research Report

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Title of Research: Preserving the interest of developing countries in international regime-making for space traffic management

Purpose of Research: (200 words)

Without even noticing it, we rely on space technologies for almost every aspect of our modern lives. However, space technology utilization as we know it is jeopardized. The growing number of rocket launches, the increasing number of actors in space, and the important existing population of space debris put us on the verge of a disaster. As surprising as it may be, there is currently no rule for governing traffic in outer space, prompting researchers and governments around the world to push for the creation of an international regime for Space Traffic Management (STM). The purpose of my research is to study negotiation dynamics among international actors for the establishment of an STM international regime. Outer space has long been the exclusive playground of the world's most advanced countries, and important treaties, although discussed among all United Nations member states, were mostly the result of negotiations among a small number of great powers (USA, Russia, France, Japan, etc.). However, it is critical to ensure that the interest of developing countries – future actors – will be preserved, in order not to hinder any future development.

Content/Methodology of Research: (400 words)

The research topic involves (1) proposing a regime-making framework preserving the interest of all actors and their mutual understanding and (2) finding a common solution to an environmental disaster in outer space, threatening all human activities on the surface of the Earth.

A thorough review of the existing literature – on the specific issue of developing countries' involvement in STM regime-making and more generally on the concept of space sustainability – highlighted the lack of clarity around the concept of space sustainability or sustainability of space environment. The definition of space sustainability included in the United Nations Committee on the Peaceful Uses of Outer Space's (UNCOPUOS) Long-Term Sustainability Guidelines rightfully includes all the facets of the concept, in particular the idea that the sustainability of space operations should be ensured not only for the continuity of current space operations but also to preserve the possibility of future generations in developed and developing countries to conduct space operations and reap the benefits of space utilization, in line with past UN principles. The literature review also showed the currently limited involvement of non-space countries in international discussions at the UNCOPUOS, because of their lack of capabilities, resources or simply because they never considered applying for membership.

The second aspect of the methodology, interviewing direct stakeholders, confirmed the above findings: involving in diplomatic discussions as complex as those at the UNCOPUOS requires a high-level of expertise often not possessed by emerging space countries and non-space countries. In addition, although the long-term sustainability of space operations should be a great concern for emerging space powers, they often prioritize more pressing issues such as capacity building, ensuring the continuous funding of early efforts and delivering actual benefits from space technologies in order to justify budgets that could be allocated to more direct poverty-alleviation activities.

This study therefore suggests the establishment of a discussion forum where like-minded emerging space countries could pool their limited resources and knowledge in order to develop comprehensive visions on issues perceived as less pressing but in fact defining the future of their programs such as STM. It is only through such integration of their capabilities that emerging and non-space countries will be able to propose viable alternatives to the proposals of their established counterparts and reach a critical level of diplomatic influence by showing a united front.

Conclusion/Observation (200 words)

Having been able to complete the project despite the limitations induced by the COVID-19 pandemic – in particular the cancellation of all in-person events where I intended to conduct interviews, I am currently in the process of publishing the research results in a conference paper during the 33rd International Symposium on Space Technology and Science (ISTS) in March 2022 in Beppu-Oita, Japan, and would like to initiate discussions around my proposal with decision-makers from both emerging and established space powers. I am planning to use the platform provided to me by the Graduate School of Public Policy of The University of Tokyo to organize follow-up stakeholder engagement workshops in order to test the exact modalities of the proposed discussion platform.