36th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Interactive Presentations - 36th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (IPB)

Author: Dr. YONGLIANG YAN
Beijing Jiaotong University, China, yanyl@bjtu.edu.cn

Mr. Di (Vito) Mei
Faculty of Law, McGill University, Canada, vitomeidi@foxmail.com
Ms. Yutong Jiang
Beijing Jiaotong University, China, 20261080@bjtu.edu.cn
Ms. Ruxuan Dang
Beijing Jiaotong University, China, 2642621576@qq.com

APPLICATION OF SPACE TECHNOLOGY TO COMBAT CLIMATE CHANGE GLOBALLY: A LEGAL APPROACH

Abstract

Space technology has a key role in global climate actions. The common-pool character of outer space and atmosphere indicates that it is a common good to integrate the space resources and technology of all spacefaring countries to combat climate change globally. Such a fact appears to indicate that all spacefaring countries should apply their space technology and resources to participate in global climate actions in line with the common but differentiated responsibilities and respective capabilities (CBDR-RC) according to the United Nations Framework Convention on Climate Change (UNFCCC) of 1992, Paris Agreement of 2015, and Glasgow Climate Pact of 2021. To support the implementation of the 2030 Agenda for Sustainable Development of the United Nations, the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPOUS) established the Working Group on the "Space2030" Agenda in 2018 and released the "Space2030" Agenda in 2021 to strengthen the contribution of space activities and space tools to address issues regarding sustainable development, including climate change. However, it is important to note that the efforts of applying space technology to combat climate change appear to be scattered. Moreover, current international law, while it can provide some important rules for climate actions, fails to provide a solid legal foundation for integrating all relevant space technology and resources to combat climate change globally in an efficient and effective way. Under such circumstances, this article proposes that the international community should consider enhancing the legal framework for coordinating global efforts to combat climate change through space technology in an efficient and effective manner in accordance with the CBDR-RC. The regimes under the legal framework may at least include an institutional coordination regime, space technology and resource integration regime, space capacity building regime, financial regime, information communication and sharing regime, and International cooperation regime for space technology application in the areas of climate change monitoring, weather forecasting, disaster management, and search and rescue operations.