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

Abstract

Space technology has a key role in climate actions, including climate change monitoring, weather forecasting, disaster management, and search and rescue operations. China as a major spacefaring power attaches importance to the application of space technology to combat climate change. This research conducts a comparative analysis of China's practices of applying space technology in climate actions and similar practices of other countries, such as the USA, Canada, Japan, and such international organization as ESA, in an attempt to review the limitation of China's practices in the application of space technology to combat climate change and formulate several models for other countries to follow in their climate actions, in particular in the area of space capacity building. Current international law, including the Outer Space Treaty of 1967, the United Nations Framework Convention on Climate Change (UNFCCC) of 1992, the Paris Agreement of 2015, and the Glasgow Climate Pact of 2021, has provided some important rules for the application of space technology to combat climate change. However, it is noteworthy that China has not provided a systematic legal or policy-level regime for applying space technology to combat climate change. Under such circumstances, this article proposes that China should consider establishing a systematic legal framework for coordinating national efforts to combat climate change through space technology efficiently and effectively. The regimes under the legal framework may at least include an institutional coordination regime, space technology and resource integration regime, space capacity building regime, information 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. This framework could provide a reference for other countries to develop their legal framework to combat climate change.