

Topics (T)

An Outer Space Perspective on Climate Change (Space Law and Policy) (5)

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THE LEGAL FRAMEWORK APPLICABLE TO SPACE ACTIVITIES FOR CLIMATE CHANGE
MITIGATION AND ADAPTATION**Abstract**

Climate change law and space law are interconnected legal sectors. However, their dynamic relation is not easy to frame. The present paper investigates how improving synergy between such fields of law can enhance the effective implementation of climate mitigation and adaptation measures. The first set of norms pertains to climate change. The 1992 UNFCCC, recalling 1988 UNGA Resolution 43/53, introduces the legal notion of climate change as a *common concern of humankind*, concretely impacting the evolution of the legal framework. After the 1985 Vienna Convention on the Ozone Layer, an obligation to conduct systematic observation of the climate system and develop data archives of causes, effects, magnitude, and time of climate change has been established in articles 4.1(g) UNFCCC and 10 of the 1997 Kyoto Protocol. Within this legal framework, space technologies, leveraging their incomparable perspective to provide comprehensive pictures of GHGs emissions and sinks levels, have been extensively exploited for *mitigating climate change effects*. Main initiatives include EU Copernicus, multilateral actions for coordinating existing EO capacities (e.g. CEOS, GEO), and national programmes. This plurality of data sources, however, leads to a certain fragmentation. The conventional system has evolved, since the 2009 Copenhagen Accord, from binding emission reduction targets to voluntary commitments, hampering the reaching of effective mitigation results. The 2015 Paris Agreement has enhanced the role of a second important tool, namely the *measures of adaptation* to reduce vulnerability of the socio-ecological systems. The step ahead is to improve countries' adaptive capacity through space applications, as already required by some national adaptation plans and strategies for, *inter alia*, water management, hazard mapping, and planned relocation. In its turn, space law is instrumental in tackling global warming in accordance with articles I, IX of the 1967 OST and principles X, XI of the 1986 Remote Sensing Declaration. As highlighted at COP26, currently more than 50% of world's climate change data comes from satellites. These are also crucial in making heavily polluting industries more efficient. However, restrictions on the sharing of data for climate change and disaster management and a lack of coordination still exist, as shown by the voluntary participation in the 1999 International Charter on Space and Major Disasters. The paper advocates that synergy between the two legal frameworks and their improvement would bind States to use space applications and data for implementing effective mitigation measures, which can also boost their recourse for adapting to climate change adverse effects.