

Establishing the Legality of Terraforming under the Outer Space Treaty

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Abstract : Ever since Elon Musk revealed his plan to terraform Mars on national television in 2015, the debate regarding the legality of such an activity under the current Outer Space Treaty regime is gaining momentum. Terraforming means to alter or transform the atmosphere of another planet to have the characteristics of landscapes on Earth. Musk's plan is to alter the entire environment of Mars so as to make it habitable for humans. He has long been an advocate of colonizing Mars, and in order to make humans an interplanetary species; he wants to detonate thermonuclear devices over the poles of Mars. For a common man, it seems to be a fascinating endeavor, but for space lawyers, it poses new and fascinating legal questions. Some of the questions which arise are whether the use of nuclear weapons on celestial bodies is permitted under the Outer Space Treaty? Whether such an alteration of the celestial environment would fall within the scope of the term 'harmful contamination' under Article IX of the treaty? Whether such an activity which would put an entire planet under the control of a private company can be permitted under the treaty? Whether such terraforming of Mars would amount to its appropriation? Whether such an activity would be in the 'benefit and interests of all countries'? This paper will attempt to examine and elucidate upon these legal questions. Space is one such domain where the law should precede man. The paper follows the approach that the de lege lata is not capable of prohibiting the terraforming of Mars. Outer Space Treaty provides the freedoms of space and prescribes certain restrictions on those freedoms as well. The author shall examine the provisions such as Article I, II, IV, and IX of the Outer Space Treaty in order to establish the legality of terraforming activity. The author shall establish how such activity is peaceful use of the celestial body, is in the benefit and interests of all countries, and does neither qualify as national appropriation of the celestial body nor as its harmful contamination. The author shall divide the paper into three chapters. The first chapter would be about the general introduction of the problem, the analysis of Elon Musk's plan to terraform Mars, and the need to study terraforming from the lens of the Outer Space Treaty. In the second chapter, the author shall attempt to establish the legality of the terraforming activity under the provisions of the Outer Space Treaty. In this vein, the author shall put forth the counter interpretations and the arguments which may be formulated against the lawfulness of terraforming. The author shall show as to why the counter interpretations establishing the unlawfulness of terraforming should not be accepted, and in doing so, the author shall provide the interpretations that should prevail and ultimately establishes the legality of terraforming activity under the treaty. In the third chapter, the author shall draw relevant conclusions and give suggestions.

Keywords : appropriation, harmful contamination, peaceful, terraforming

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