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SUSTAINABLE SPACE EXPLORATION AND USE: SPACE MINING IN PRESENT AND FUTURE
PERSPECTIVES

Abstract

The development of Space law has been slow, but nevertheless it has developed in a robust manner. The outer space regime is free for exploration and use by all states. Space, the final frontier for mankind has vast opportunities regarding the exploitation of extraterrestrial resources, which can be tapped. One of them is, Mining in outer space, which, if carried on sustainably can benefit mankind in innumerable ways. The paper aims to discuss the legal challenges that the nascent industry of space mining has to overcome. The principle of national appropriation will be discussed which forbids public and private property rights in outer space. However, it is opined by jurists that it does not impede the ownership of "natural resources", but only "areas". The Moon Agreement holds more significance with mining endeavors. Therefore, the principle of Common Heritage of Mankind would be examined with a dynamic industry-oriented interpretation. The argument that the issue of equitable sharing of benefits acts as impediment to space mining will be contested. The ownership status of "in-situ" and "extracted" resources will be analyzed in light of the concept of "right of usufruct". Secondly, the paper will deal with the Planetary Protection Policies that an entity interested in space mining is required to follow. Thirdly, the minerals regime in Antarctica and the IACG cooperation mechanism will be examined, specially in light of the fact the States are reluctant to follow the deep seabed regime. Lastly, an international governance regime for minerals mining in outer space will be suggested, keeping in account that investments demand returns and without proper safeguards to the industry, corporate sector would be reluctant to invest in space mining. A Convention on Mining Activities on the Moon and other Celestial Bodies (Mining Convention) will be suggested which ensures the applicability of national appropriation principle, peaceful use of outer space, freedom of prospecting, licensing of mining slots based on usufructuary rights, ownership over extracted minerals, non-interference in commercial activities, the principle of common but differentiated responsibility in lieu of equitable sharing of benefits, environment protection policies, establishment of administrative bodies and dispute settlement system .