
OWNERSHIP OVER THE MOON: PROPERTY RIGHTS FROM THE PERSPECTIVE OF THE MOON AGREEMENT

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INTRODUCTION

There has been a great shift in the space related activities lately, nations are more interested in space exploration. The primary objective of space activities has, originally, been exploration which has filtered to just include welfare activities. Commercialization and privatization of space activities have caused alteration in exploration of outer space. Corpus Juris Spatialis has always talked about non-appropriation of space.¹ According to the laws relating space, the research and exploration of space is allowed if it is carried out for the benefit of mankind and not for any selfish purpose. Corpus Juris Spatialis follows the principle of “Outer space is the Province of Mankind”,² the treaties consider space as a common province for research and exploration. The Moon Agreement specifically talks about the principle of “Common Heritage of Mankind”.³ All these discourage the ownership or property rights over the Moon and other celestial bodies. There also are conflicting views regarding property rights and ownership in space that advocate for establishment of property rights and ownership over the Moon with various argument, one being Environmental concerns on preservation of Earth. Besides, there also has been instances of trade of celestial Bodies wherein people have been buying selling properties on Moon and other celestial Bodies and others have been claiming ownership over various celestial bodies.⁴

¹ The Moon Treaty: Agreement Governing the Activities of States on the Moon and other Celestial Bodies within the Solar System other than the Earth | Studies in International Space Law | Oxford Academic, <https://academic.oup.com/book/43019/chapter-abstract/361381841?redirectedFrom=fulltext> (last visited Sep 26, 2022).

² Outer Space Treaty: Exploitation Of Extra-terrestrial Bodies And Acquisition Of Land In Outer Space - Contracts and Commercial Law - India, <https://www.mondaq.com/india/contracts-and-commercial-law/1179162/outer-space-treaty-exploitation-ofextra-terrestrial-bodies-and-acquisition-of-land-in-outer-space> (last visited Sep 26, 2022).

³ Moon Agreement, <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/moon-agreement.html> (last visited Sep 26, 2022).

⁴ THE STATUS OF PROPERTY RIGHTS IN INTERNATIONAL SPACE LAW, <https://addletonacademicpublishers.com/contents-crlsj/154-volume-4-2-2012/1447-the-status-of-propertyrights-in-international-space-law> (last visited Oct 4, 2022).

HISTORY OF INTERNATIONAL SPACE LAW

International space law started shaping during the space race; outer space was not seen as a field for development and engagement by private players but as a new realm for scientific research and discovery. The two superpowers of the cold war, the US and the Soviet Union, claimed to have found common ground in the project of exploring outer space for the advancement of science.⁵

Antarctic Treaty 1959 is a crucial instrument in developing Space Law. It is intended to ensure that peaceful activities are allowed in the Antarctic and to demilitarize. World leaders then were interested in incorporating these principles through an agreement for space activities. In 1960, it was suggested that these principles and other ones from Antarctic Treaty could be used in the Agreement for space activities. Antarctic Treaty also prevents nations from establishing sovereignty, But tellingly, the Antarctic Treaty talked about non-appropriation and prevented any nations from establishing sovereignty.⁶

'Treaty on Principles Governing the Activities of States in Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies' was signed in 1967 after negotiations between the US and Soviet Union on the government of activities in outer space. The international agreement is a crucial instrument for space law today. The Outer space treaty follows the principle "outer space and celestial bodies are free for exploration for all" and the principle of "non-appropriation."⁷

It was argued that space activities should only be explored by government, and private actors can not involve in space activities, but other states negotiated to include private actors and international intergovernmental organizations to conduct space activities. International responsibility for space activities rests on the signatory government no matter the national activities are carried out by governmental or non-governmental entities. This allowed the establishment of commercial; series such as spacecraft launching industries, remote sensing,

⁵ Nahal Toosi, *Who owns the moon?*, The Agenda, <https://politi.co/2IGQ7U9> (last visited Sep 26, 2022).

⁶ "THE STATUS OF PROPERTY RIGHTSTHE STATUS OF PROPERTY RIGHTS IN INTERNATIONAL SPACE LAW, *supra* note 4. IN INTERNATIONAL SPACE LAW."

⁷ Book Review: "The Development of Outer Space: Sovereignty and Property Rights in International Space Law (Thomas Gangale),"

https://www.researchgate.net/publication/228227654_Book_Review_The_Development_of_Outer_Space_Sovereignty_and_Property_Rights_in_International_Space_Law_Thomas_Gangale (last visited Oct 4, 2022).

and telecommunication industries; these are now triumphant.⁸ However, it was noted that the treaty failed to discuss essential issues in the exploration of outer space and its natural resources as it was negotiated long ago.

Then was "The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies," also commonly known as the 'Moon Agreement' proposed, which follows the principle of "Heritage of Mankind" i.e., to say all the resources of outer space are common heritage for all and not to be claimed by any nation-state. Moon Agreement is a failed instrument because only a few states have signed the agreement, and spacefaring nations such as US and Russia are not signatories to the agreement.⁹

AGREEMENT GOVERNING THE ACTIVITIES OF STATES ON THE MOON AND OTHER CELESTIAL BODIES

"Agreement governing the Activities of States on the Moon and Other Celestial Bodies" also called "Moon Agreement" provides for legal framework for exploration of Moon and the activities carried out on the Moon and other celestial bodies. It is a multilateral treaty presented on the 18th of December, 1979, by a member of the United Nations. It was brought considering the loopholes of the 'Outer Space Treaty'.¹⁰

Both Moon, Agreement and The Outer Space Treaty state that they should be used for the benefit of all Mankind and both the instruments talk about demilitarization, international cooperation, and non-appropriation. Moon Agreement reiterates the principle of the Outer Space Treaty to say the Moon, and its resources as "the common heritage of mankind." agreement provisions are meant to apply to Moon and other celestial bodies and not to the extraterrestrial materials that reach Earth's surface by natural means.

In practice, the Moon Agreement failed as a treaty because states with launching capacity that engage in space exploration have not ratified it. Even though the treaty prohibits national appropriation or private ownership of the Moon and other celestial bodies, it doesn't seem very

⁸ Paula L. Wegman, *Recent Developments in Aviation and Space Law*, 46 Tort Trial Insur. Pract. Law J. 225 (2011).

⁹ "Bringing Space Law into the Commercial World: Property Rights without " by Henry R. Hertzfeld and Frans G. von der Dunk, <https://chicagounbound.uchicago.edu/cjil/vol6/iss1/8/> (last visited Oct 4, 2022).

¹⁰ The Moon Treaty: Agreement Governing the Activities of States on the Moon and other Celestial Bodies within the Solar System other than the Earth | Studies in International Space Law | Oxford Academic, *supra* note 1.

practical.¹¹ Owning a piece of land or property on the moon is dreamy to people. There are few people talking about schemes of buying and selling of lands on the moon and other celestial bodies. People offering such schemes have studied the treaty in dept to find out loopholes in the same. There are two treaties that deal with extra-terrestrial sales, The Outer Space Treaty and Moon Agreement; they clearly state that no nation owns outer space. They also make it impossible for private entities to own such land and properties.¹²

Outer space is also used for military purposes; it is essential to impose a legal framework to ensure the rule of law in outer space and to prevent monopolization and national appropriation. Exploration of outer space should protect the interests of all countries; exploration needs to be regulated. This shall prevent countries that possess both technology and influence from occupying the divide et impera principle and imposing it.

Therefore, there is no proper legislation at present that clearly explains the exploration and use of extra-terrestrial bodies, and ownership of properties in outer space are not real at this time.

WHAT DOES MOON AGREEMENT SAY ABOUT OWNING A PROPERTY ON MOON?

The moon agreement got validated in 1979 when the US Space initiative introduced the potential use of Lunar Resources. Most space-faring nations have not signed the Moon agreement because it restricts property ownership and prohibits the provision of property rights.¹³ It can be claimed with an assurance of "equitable sharing." Even though the Treaty prohibits Property rights over the Moon, it permits the use of resources of the Moon, such as minerals, for scientific investigations. Resources can be used in any quantity required for the research or to support the mission. Article IV of the treaty also authorizes the states to build their space stations on the Moon and allows them to hold jurisdiction and authority over them. The common Heritage of Mankind Principle does not allow anybody to own the areas identified as Common Heritage of Mankind legally. Still, they can manage such sites theoretically as states are allowed to build space stations and hold jurisdiction over them. The CHM principle of the Treaty seemingly favors developing states. The Treaty lays restrictions upon ownership

¹¹ David Sarnacki, *Property Rights in Space: Asteroid Mining*, 2 Tex. AM J. Prop. Law 123 (2014).

¹² Who owns the Moon? | Royal Museums Greenwich, <https://www.rmg.co.uk/stories/topics/who-owns-moon> (last visited Sep 26, 2022).

¹³ "Space Settlements, Property Rights, and International Law: Could a Lun" by Alan Wasser and Douglas Jobs, <https://scholar.smu.edu/jalc/vol73/iss1/3/> (last visited Oct 4, 2022).

and property rights of the resources, and so Space Powers consider it as an encumbrance of flourishing space. The developed nations, primarily the Space Powers, fear that the principle of CHM in space exploration might empower developing countries with a transfer of political power and wealth. The treaty is said to be outdated that needs attention, whereas some think it follows the pragmatic approach. When further scrutinized, the treaty forbids claims to property rights. It talks about "natural resources in Place" property rights of such resources are not to be claimed and the treaty ostensibly grants deracination or rooting out of natural resources in place, i.e., the resources displaced from their natural setting. Article XI of the Treaty talks about ownership and Property on the Moon. According to the article, "neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place shall become property." The treaty propounds substantive property rights when specific activities are associated with property rights, even though it is not in harmony with Article XI.

CHALLENGES IN ACCORDING PROPERTY RIGHTS

It is crucial to see the challenges followed by Property rights granted while dealing with it. Of many, one primary concern is the corruption of the celestial bodies. It is foreseen that such deterioration might cause grave aftermath on Earth's Environment. Humans intentionally or unintentionally happen to cause shifts in the Ecology of their habitat. Space is one such place that Humans have not yet explored to pollute, but the challenge is already being kept in check. Space Debris is yet another concern to be looked at; it needs to be fixed. Space debris is just intensely increasing, and Humans are the primary cause of the same. The Earth's climate might as well get affected because of such increase in space debris, and there is an urgent need to study possible consequences of such deterioration. Invocation of Property rights into space law might cause extreme difficulty in addressing the issue of degrading the Space Environment. Space Tourism can be another crucial challenge; it can cause various problems, including pollution of the Moon's surface. Institution of Private Companies involved in space tourism, companies offering delivery services to the Moon, and commercial flights to the Moon can cause befall on the Ecology and surface of the Moon.

Another crucial challenge is the choice of concepts such as Res Communis, Res Nullis, the common heritage of humankind, and the principle of community. Res Communis stands against privatization of the property but for the common usage of it. The Outer Space treaty undoubtedly articulates this concept, and various articles of the treaty seem to be in conformity

with the idea, articles III & IV, and the Preamble of the treaty. It is vital for any principle to be introduced in the international sphere that the definition of such principles must have been approved in consensus and can be reviewed. Such principles must be incorporated in any certified Agreement and recognized by states for global acceptance.¹⁴ Res Communis is a recent principle and is not a binding one. The state parties of the Outer Space Treaty can withdraw with a notice of 1 year; this can cause space colonization. Since this principle is not binding, it might cause colonization as states can withdraw their consent to own property in outer space. The principle of Res Nullius states that a property belongs to nobody unless somebody claims ownership over it.¹⁵ This follows the principle of sovereignty. Article II of the Outer Space Treaty talks about non-appropriation of the Moon and other celestial bodies and OST being principle instrument for space law, the body of space treaties or "Corpus Juris Spatialis" is incapable of the principle of Res Nullius or the principle of Sovereignty, for that matter, because one has no option but to disregard the principle of sovereignty if principle of Res Nullius is disregarded as per article II.

CURRENT SCENARIO

The space laws were enough in the time they were established but the scenario has changed to include private sector involvement in space exploration. The law seems outdated, so the private sector needs to be included in the exploration of the Moon and other celestial bodies. Alteration or modification in the laws seem a little troublesome with world's reluctance to accept like Moon agreement in 1984 was not accepted by nations worldwide. Article I of the Outer Space Treaty states that Outer space is the province of all mankind and the use and exploration of same is to be carried for the benefit and the interests of all countries." Therefore, there are legal issues concerning commercial space transportation in light of this article and so is there a need for establishment of an equilibrium between commercial and technological opportunities.¹⁶ There is a need to establish principles that the opportunities base on.

The principle of sovereignty cannot be applied as all the instruments of space law oppose states claiming sovereignty on moon and other celestial bodies. Most customary laws follow the doctrine of first position which helps establish property rights over a territory and resources.

¹⁴ The Moon Treaty: Agreement Governing the Activities of States on the Moon and other Celestial Bodies within the Solar System other than the Earth | Studies in International Space Law | Oxford Academic, *supra* note 1.

¹⁵ Space Law for Peace: A Critical Review on JSTOR, https://www.jstor.org/stable/41394128#metadata_info_tab_contents (last visited Oct 4, 2022).

¹⁶ Outer Space Treaty, *supra* note 2.

The doctrine is also common in civil & common law and other legal systems. The Moon Treaty dismissed the contrast of ownership and sovereignty with invocation of article XI of the Treaty which says “neither the surface, nor the subsurface of the moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization, or nongovernmental entity or any natural person.” Major Space Powers do not accept this Treaty and so this article does not apply to them but has a paramount importance in 'corpus juris spatialis'.¹⁷

By continuing to comply with the terms. It seems that the Moon treaty is yet to establish an international legal framework based on the CHM principle to regulate the use of lunar minerals, and to do so when “research mining is about to become possible.” There is no impediment to the commercial development of the moon as viability does not exist, although beneficial property and property rights will take precedence. The argument misinterprets the nature of commercial investment, hypothetizing that if it cannot be achieved, *res Communis* will always prevail. A company will base its moon mission on the assumption that mining will prevail again, but if the mission is successful, mining becomes possible, then the treaty requires building a regulatory body that will impose to reduce mining operations and maintain profitability. As the results no longer align with *res Communis*, thus tearing down the assumptions on which the company is based on its mission. Any savvy investor will be able to sense this vicious cycle and will not invest. If there is no investment, there will be no mining launch. In the absence of a mandate, mining would be impossible and there would never be a governing body. As such, no ore will be mined. However, if a new regime is created right now, without mining capability, it will break this rule and allow moon mining and ensure the stability of moon mining.¹⁸

SOLUTIONS

One of the numerous challenges that must be addressed, along with the militarization of space, environmental harm, and space tourism, is the are their actions rights. All States are required by customary international law to ensure that the actions they take do not harm others. In order to manage this, a global organisation must be established to oversee properties found beyond earth's atmosphere, with the responsibility of holding all properties found in the outer Space as

¹⁷ PROPERTY RIGHTS IN OUTER SPACE, Tygar Law Corporate (2020), <http://www.tygarlaw.com/property-rights-in-outer-space/> (last visited Oct 2, 2022).

¹⁸ Amanda M. Leon, *Mining for Meaning: An Examination of the Legality of Property Rights in Space Resources*, 104 Va. Law Rev. 497 (2018).

the representatives of the people of earth. The current framework is insufficient to establish a liability framework addressing problems related to outer space. In accordance with this, a global organisation can be established that will act as Earth's representatives while owning all property in space. If any investor or any person wants to claim exclusive use rights. In that case, they must demonstrate to the organisation that they have occupied that portion of outer space and established a resource extraction mechanism for six consecutive months to obtain exclusive use rights.

CONCLUSION

Therefore, there are overwhelming resources in the Space. Such resources might be helpful for the upliftment and flourishing of Humankind. Utilizing such resources might be possible if Property rights are recognized and if private parties are allowed to participate. A good strategy would be the formulation of a workable framework taking into consideration the current legislatures along with a sufficient sustainable view for the future. Nevertheless, we should not disregard an entire jurisprudence supported by the majority of the international community and is under the coveted United Nations.