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**General exchange of views on potential legal models for
activities in the exploration, exploitation, and utilization
of space resources**

**For All Moonkind – Input to the Working Group on Legal
Aspects of Space Resource Activities**

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* [A/AC.105/C.2/L.323](#).





Response to the Chair and Vice-Chair Invitation to Provide Submissions on the Mandate and Purpose of the United Nations Committee on the Peaceful Uses of Outer Space Working Group on Legal Aspects of Space Resource Activities.

**Respectfully Submitted by For All Moonkind
21 December 2022**

I. Introduction: A Time of Consequence

1. For All Moonkind is an entirely volunteer international nongovernmental not-for-profit entity that is the only organization in the world focused on protecting human cultural heritage in outer space. Our mission is to ensure historic lunar landing and similar sites in outer space are recognized for their outstanding value to humanity and consequently preserved and protected for posterity by the international community as part of our common human heritage. Our volunteers include more than 100 space law and heritage law experts from every inhabited continent who contribute to research analyzing the legal implications, perils and obstacles of protecting historic sites in space.
2. For All Moonkind recognizes that the Committee on the Peaceful Uses of Outer Space (COPUOS) is entering its most significant era since its establishment by the United Nations General Assembly in its resolution 1348 (XIII) of 13 December 1958. The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (the Outer Space Treaty) established a sustainable legal framework for space activities that has served humanity well as it tentatively explored the space surrounding our Earth. Foundational precepts include statements that: space, including the Moon and other celestial bodies, shall be free for exploration and use by all; space, including the Moon and other celestial bodies, shall not be subject to national appropriation by any means; and that the Moon and other celestial bodies shall be used exclusively for peaceful purposes. These principles have proven both durable and sustainable. Yet it is clear that humanity continues to advance beyond our Earth, crowding our orbits, and seeking to explore, exploit and use space resources. New principles must be adopted to assure success and sustainability, and, importantly, to avoid conflict and harmful interference. The challenge for COPUOS today is not simply to adopt a legal model, but to cultivate an adaptive legal model with sustainable rules to guide at least the next generations of space activity to include the growth of human communities in space. The next stage of human development relies on our ability to do this right.

II. Executive Summary: Cultural Heritage Is the Heart of Sustainable Development

3. For All Moonkind advocates that the mandate and purpose of the Working Group should be to identify gaps in the current legal framework for space resource activities and develop foundational guidelines and principles to address those gaps.

4. As the Working Group considers the legal aspects of space resource activities, it must address the impact those activities will have on cultural heritage and use the universality of heritage to achieve consensus.
5. It is mandated by United Nations General Assembly Resolutions 1348 (XIII) of 13 December 1958 and 1472 (XIV) of 12 December 1959 that the COPUOS “study the nature of legal problems that may arise from the exploration of outer space.”
6. This Working Group is uniquely situated to address two legal problems that have arisen in tandem:
 - a. space resource activities; and
 - b. identifying and safeguarding cultural heritage in outer space.
7. Placing culture at the heart of development policies, including the development of space resource activities, is the only way to ensure human-centered, inclusive and equitable growth and advancement.

III. The Universal and Unifying Aspects of Cultural Heritage

8. Culture is who we are, where we have been and where we are going. It is what shapes our identity as humans. In short, development cannot be sustainable without culture. Moreover, cultural heritage protection is a mainstay of intergenerational equity. The protection and preservation of human heritage recognizes those who came before us, protects the gains of our civilization and allows future generations to learn from both their processes and results. It reminds us that we do not stand on a starting line as we look to space, we stand on the shoulders of those who came before. In protecting cultural heritage, we are drawn together in kinship rather than drawn apart by barriers, and we assure sustainable rules and sustainable development.
9. In 1958, at the 992nd Meeting of the 1st Committee of the United Nations General Assembly, the delegate from El Salvador, Mr. Vega Gomez, reflected upon the expansion of humanity into space. Though at the time the development of space capabilities seemed unique to only two States, the United States and the Soviet Union, Mr. Gomez recognized that the technological triumphs of reaching space were “not the triumph of a handful of quiet” individuals, but “the result of culture accumulated through centuries, with the contributions brought by the sufferings of [humans]; it is the triumph of [human] intellect – the human that is part of us all.”
10. It is inarguable that recognizing and protecting human heritage builds kinship among all people. This is well-recognized with respect to human cultural heritage artifacts and sites here on Earth. Indeed, the World Heritage Convention, ratified by more than 190 States, embodies the truism that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world. Humanity

has a common responsibility to the past – to protect it so that we may move forward to the future in unity. Preservation is not antithetical to progress. It is a sign of progress.

11. Heritage is more than just monuments. Heritage, cultural and natural, tangible and intangible, is an evolving resource that supports identity, memory and sense of place and has a crucial role in achieving sustainable development. It enables social cohesion, fosters socio-economic regeneration and poverty reduction and strengthens social well-being. Heritage is a fragile, non-renewable resource that must be conserved for current and future generations. It is incontrovertible that at this point in time, it is the historic sites, our heritage, in space that are most vulnerable to damage and in the most need of protection.

IV. Mandate to Address Cultural Heritage

12. The mandate and purpose of the Working Group should be in keeping with the obligations and responsibilities contained in the Outer Space Treaty which, in Article III, obligates States parties to “carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law.” Cultural heritage law is part of international law and should not be ignored. Thus, the mandate of the Working Group should consider the further development of international law with the natural harmonization of space and cultural heritage law.
13. In 2016 COPUOS asserted that legal and institutional initiatives were needed to ensure that international space law is a relevant part of global space governance in the 21st century.¹ It therefore, mandated its Legal Subcommittee to promote the progressive development of international law by identifying areas that may require additional regulations. Cultural heritage is one of those areas.
14. The mandate and purpose of the Working Group should also reflect the objectives set forth in the Guidelines for the Long-term Sustainability of Outer Space Activities² (LTS Guidelines). The LTS Guidelines define the long-term sustainability of outer space activities “as the ability to maintain the conduct of space activities indefinitely into the future in a manner that realizes the objectives of equitable access to the benefits of the exploration and use of outer space for peaceful purposes, in order to meet the needs of the present generations while preserving the outer space environment for future generations.” Cultural heritage is part of the outer space environment that should be preserved for future generations.
15. Including consideration of cultural heritage in the mandate of the Working Group also would advance two of the seven UNISPACE+50 thematic priorities, namely, Priority 2: the “legal regime of outer space and global space governance” and Priority 3: “enhanced information exchange on space objects and events.”
16. Finally, the mandate of the Working Group should be guided in parallel with the United

¹ U.N. Doc. A/71/20 ¶ 296.

² U.N. Doc. A/74/20 ¶ 163 and Annex II.

Nations 17 Sustainable Development Goals (SDGs).

- a. Cultural heritage in outer space is instrumental to SDG 16: “promote peaceful and inclusive societies for sustainable development, provide access to justice for and build effective, accountable and inclusive institutions at all levels.
- b. Cultural heritage in outer space is instrumental to SDG 17: “strengthen the means of implementation and revitalize Global Partnership for Sustainable Developments.

V. Guidelines and Principles to Govern Space Resource Activities Can Include Heritage Protection Zones

17. Space resource utilization is a necessity.

- a. The vast resources of space have the potential to better the life of our human species both here on Earth and wherever we may later be found in the Universe. So far as we know, the Universe is infinite. However, our current technological capabilities significantly narrow the area we can currently explore and utilize. We will not be able to reach farther unless we learn how to harness the resources in our vicinity.
- b. States and private companies engaged in space exploration must be able to extract, use and create commerce around space resources. Otherwise, the cost of space exploration will be prohibitive. For example, the extraction of water to fuel both life and spacecraft will reduce the amount of payload that must be lifted into orbit to support human life. Likewise, it is eminently more effective to use in situ resources to build habitats, roads, berms and other conveniences that will make space exploration more efficient.
- c. Ultimately, it is hoped and expected that space resources will be able to be used to supplement our dwindling natural resources here on Earth. This also must be permitted.

18. For All Moonkind believes that, as part of its mandate and purpose, the Working Group should seek to offer guidance with respect to the interpretation of Article II and Article IX of the Outer Space Treaty.

- a. Article IX of that Treaty obligates that “States Parties to the Treaty shall conduct all their activities in outer space including the Moon and other celestial bodies, with **due regard** to the corresponding interests of all other States Parties to the Treaty.” The concept of due regard can be used to provide grounding for a potential framework on space resource activity.
- b. Article II of the Outer Space Treaty states that “Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty,

by means of use or occupation, or by any other means.” One of the challenges facing the Working Group, for example, will be with respect to what is considered a national “appropriation” under the Treaty.

19. Zones could be established to manage, and hopefully prevent, conflict, starting with proposed heritage protection zones.

- a. The Moon and potentially Mars will be testing grounds for humanity as we seek to develop the technology to reach deeper into space. While the Moon has been called the “Eighth Continent” and offers much potential for water, helium 3 and other resources, at present it is believed that these resources are clustered and not spread evenly around the lunar surface. As such, it is likely that two or more States or private entities will end up seeking to extract and utilize resources in potentially close proximity. Not only would this test the provisions of the Liability Convention, it could introduce conflict where time and effort should be spent on furthering exploration goals.
- b. This again raises issues under Article II. However, Article IX offers that harmful interference should be avoided and that States show due regard for the corresponding interests of other States. For All Moonkind suggests that a Coordination Zone, or safety zone concept, be adopted. The zone concept must be guided by the Outer Space Treaty, specifically, Article I which grants States Parties free access to all areas of celestial bodies, Article II which bars national appropriation, Article IX which requires due regard, Article XI which is a notification provision, and Article XII which presupposes the emplacement of installations on other celestial bodies even though this can be read to be inconsistent with Article II.
- c. Several national laws or regulations, and multilateral organizations propose the use of safety zones in space, including the NASA Recommendations to Space-Faring Entities,³ the Artemis Accords,⁴ the Hague International Space Resources Governance Working Group Building Blocks,⁵ the Space Generation Advisory Council Effective and Adaptive Governance for a Lunar Ecosystem Report,⁶ and Russian Law.⁷ While these documents vary in support, approach and motive, they all maintain the necessity of establishing safety zones in space. They would provide a good starting point for consideration by the Working Group.

³ https://www.nasa.gov/pdf/617743main_NASA-USG_LUNAR_HISTORIC_SITES_RevA-508.pdf

⁴ <https://www.nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf>

⁵ <https://www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/lucht--en-ruimte-recht/space-resources/bb-thissrwwg--cover.pdf>

⁶ <https://spacegeneration.org/wp-content/uploads/2021/12/EAGLE-Report.pdf>

⁷ Закон Российской Федерации о Космической Деятельности [Law of the Russian Federation on Space Activity], Aug. 20, 1993, No. 5663-1 (as amended by Federal Law No. 54-ФЗ, Apr. 15, 2019), art. 17(5).

- d. For All Moonkind also suggests that the first Coordination Zones can be implemented immediately, to recognize and protect human heritage on other celestial bodies. We believe that international community will be more willing to reach agreement regarding the protection of a site of universal value, as opposed to the operative site of a State or private company. We urge the Working Group to solicit expert testimony from geologists, scientists and engineers; then taking the science into consideration, consider the establishment of temporary heritage protection zones around agreed sites of universal value. These can serve as a baseline for the Coordination Zones that will be needed to protect future operational missions, whether for scientific or commercial purposes.

VI. What of Our Moon?

20. The Outer Space Treaty refers to all aspects of space with the phrase “outer space, including the Moon and other celestial bodies.” For All Moonkind suggests that it is now time to consider whether the Moon should be placed in a separate category from other celestial bodies, which can be interpreted to cover everything from a speck of cosmic dust to a planet larger than Jupiter.
21. For All Moonkind believes that our lunar neighbor deserves perhaps some special consideration given both its proximity to Earth and the enduring importance it has to cultures around the world and through time.
22. For All Moonkind respectfully submits that while resource utilization and development must be pursued on the Moon – as it is a proving ground for all our further space activity – rules and regulations developed for the Moon should not be considered to apply to all other celestial bodies throughout the Universe.

VII. Summary and Conclusion

23. For All Moonkind advocates that the mandate and purpose of the Working Group should be to develop foundational guidelines and principles to address space resource utilization.
24. These guidelines and principles should reflect the obligations and responsibilities contained in the Outer Space Treaty and also consider the importance and potentially beneficial effects of recognizing and protecting human heritage in space. They should also consider treating the Moon as separate from other celestial bodies.
25. For All Moonkind applauds the formation of the Working Group and is grateful for the opportunity to submit these preliminary thoughts for consideration as the Working Group considers its mandate and purpose.