Submission of 15 November 2024 by the
International Institute of Space Law (IISL) study group on the Moon Agreement
to the Working Group on the Legal Aspects of Space Resources Activities of the
United Nations Committee on the Peaceful Uses of Outer Space
in response to Circular OOSA/2024/43, CU 2024/221 of 22 July 2024

The role of the Moon Agreement in the governance of lunar activities, including the utilization of lunar resources

I. Introduction: Why the Moon Agreement?

Humankind is headed towards a return to the Moon. Two parallel projects, the Artemis Program (under US leadership) and the International Lunar Research Station initiative (under Chinese leadership) envision landing humans on the Moon and building facilities on its surface. Both projects contemplate the utilization of lunar resources to sustain their missions and possibly enable the further exploration of the solar system.

These plans have led to numerous initiatives aimed at ascertaining the legal regime applicable to lunar undertakings. So far, attention has been mainly placed on the provisions of the 1967 Outer Space Treaty which, while providing the foundation for activities in outer space, are not specifically designed to govern operations on the Moon. Significantly, the only international space treaty that was developed to regulate celestial bodies' activities, namely the 1979 Moon Agreement, has been largely disregarded. While, on one side, this is somewhat understandable due to the limited number of ratifications of the Agreement (only 17 States are Parties to it), on the other side it seems important at this point in time to understand the content of its provisions and assess the contribution that they may give to process of formation of a system of governance of lunar activities.

This approach can be justified on three grounds. First, the Moon Agreement was the outcome of seven years of negotiations within the Committee on the Peaceful Uses of Outer Space

(COPUOS) and its final text was adopted as a UNGA Resolution unanimously (including with the support of those countries that eventually decided not to become Parties to it), before it was opened for signature in December 1979. Secondly, the Agreement is applicable to 17 States members of COPUOS; therefore, simply ignoring the existence of the Agreement's provisions within the discussions currently being undertaken within the Committee, does not appear to be an advisable, or even acceptable, position. Thirdly, several of the questions that were discussed at the time the Agreement was negotiated largely mirror those that are asked today (i.e. how to establish a lunar station, right to use resources, size). For these reasons, it is arguable that the Moon Agreement should be given more consideration in the ongoing discussions on the legal regime governing future lunar activities, not only because it is an instrument currently in force but also because it may teach the international community valuable lessons to ensure that future lunar activities are undertaken in a coordinated manner and in accordance with the rule of law.

Importantly, the present submission is not intended to recommend any specific behaviours from COPUOS Member States but simply to highlight the usefulness of the Moon Agreement provisions and their potential role in the governance of lunar activities. This submission summarizes the work currently being undertaken by the IISL Working on the Future of the Moon Agreement that is expected to be completed by September 2025.

II. Key features of the Moon Agreement

The Moon Agreement was drafted to define and develop the provisions of the Outer Space Treaty in relation to the Moon and other celestial bodies (Preamble Moon Agreement). Indeed, while the Outer Space Treaty recognized the right of States to explore and use the Moon and other celestial bodies while, at the same time, prohibiting their appropriation, it did not clarify how lunar activities should be conducted nor it dealt with the use of space resources. The Moon Agreement was, thus, designed to fill these gaps and to lay down provisions that could guide various aspects of a lunar mission, from landing on the Moon to using the resources contained therein.

This section highlights the most significant and innovative features of the Moon Agreement:

Reinforcing the exclusively peaceful nature of lunar activities

Art. 3 of the Moon Agreement expands upon the provisions of Art. IV of the Outer Space Treaty in the sense that not only restates the prohibition to place military installations on the Moon and to test any weapons therein, but it clearly forbids the use or threat of use of force or any hostile acts on the Moon or to use the Moon to commit such acts. This is an important addition because it gives meaning to the prohibitions set forth in Art. 2(4) of the UN Charter in the context of lunar activities.

Protecting the lunar environment

Art. 7 of the Moon Agreement requires Parties to take measures to ensure that their lunar activities do not disrupt the Moon environment, whether by introducing adverse changes therein, by its harmful contamination due to the introduction of extra-environmental matter or otherwise. This provisions clearly innovates upon the Outer Space Treaty, as the latter did not

contain any measures specifically requiring States to take measures to avoid the pollution of the space environment.

Preserving sites

Art. 7 of the Moon Agreement opens the possibility for States Parties, in consultation with UN bodies, to designate areas of the Moon as 'areas of special scientific interest' for which special preservation arrangements should be put in place. This approach unquestionably goes beyond the provisions of the Outer Space Treaty that do not deal with this issue at all.

Strengthening the non-appropriative nature of the Moon and other celestial bodies

Art. 11(3) of the Moon Agreement expands upon the terms of Art. II, Outer Space Treaty, which set out the non-appropriative nature of the Moon and other celestial bodies. In particular, it provides that neither the surface or subsurface of the Moon shall become the property of any State or non-governmental organization and that the placement of personnel, objects and facilities shall not create any right of ownership over the surface and subsurface of the Moon. These provisions are intended to make sure that the implementation of long-term activities on the Moon, including those involving the building of facilities and use of resources, do not lead to sovereignty/ownership claims over the affected lunar areas.

Landing objects and establishing stations on the Moon

Art. 8 and 9 of the Moon Agreement recognize States Parties the right to land objects on the Moon, place personnel, vehicles, objects and installations om the surface over or below the surface of the Moon and the establish manned or unmanned stations. In establishing such stations, a State Party shall only use the areas needed for their needs, immediately inform the UN Secretary General about their location and purposes and, at regular intervals, about any changes that have occurred to them. These provisions are of practical relevance for future lunar endeavours because not only they govern each phase of a lunar mission (landing, placing personnel and building stations) but because they also set out the criteria to be followed when establishing such stations and periodically reviewing their purpose and size.

Recognizing the status of 'astronauts' to all persons on the Moon

Art. 10 of the Moon Agreement provides that States Parties shall take practicable measures to safeguard the life and health of persons on the Moon and shall view every person therein as an 'astronaut'. Accordingly, Parties shall offer shelter in their stations, installations, vehicles and other facilities to persons in distress on the moon. This clause is particularly interesting, not only because it operationalizes Art. V of the Outer Space Treaty and the Rescue and Return Agreement to lunar activities, but also if one considers the potential presence on the Moon of two parallel operations, one undertaken under the framework of the Artemis Program and the other under the ILRS umbrella. Indeed, Art. 10 indicates that one of the possible ways to set up cooperation between the two sides could be the developments of procedures to rescue astronauts in distress.

Using lunar resources

The Moon Agreement explicitly recognizes the right of States Parties to use lunar resources in the context of their mission; this marks a notable departure from the provisions of the Outer Space Treaty that did not deal specifically with this issue and merely recognized the

right to use outer space (including the Moon). Importantly, the Moon Agreement distinguishes between the use of resources for scientific and non-scientific purposes. In the context of the former, States Parties may collect and remove from the moon samples of its mineral and other substances and use them for scientific purposes. Additionally, States Parties may, during scientific investigations, also use mineral and other substances of the moon in quantities appropriate for the support of their missions and make them available to interested States (Art.6). On the contrary, the use of resources for purposes other than scientific (commercial) must be carried out in accordance with an international regime. In this regard, two points must be highlighted. First, such an international regime is not set out in the Agreement; Parties merely commit to do so when the exploitation of resources is about to become feasible and to include in such a regime a series of goals, inter alia the equitable sharing among all States of the benefits derived from those resources. Second, the Agreement declares the Moon and its resources to be the common heritage of mankind; this concept, which is not defined in the Agreement, should find its meaning in the international regime to be established pursuant to Art. 11(5). Often, the uncertainty surrounding the meaning and implications of the common heritage of mankind as well as the requirement to equitably share benefits, are viewed as some of the key reasons to justify the limited number of ratifications that the Agreement has received.

Embracing adaptive governance

While some may criticise the failure of the Agreement to set out an international regime to govern the exploitation of lunar resources, one can argue that the drafters of the Agreement fully embraced an adaptive governance approach to the management and utilization of resources. Indeed, by postponing its establishment, they allowed Parties to structure it in a way to respond to the needs of present times rather than attempting to work with a regime developed decades before under different economic and technological conditions.

III. Role of the Moon Agreement in the governance of space resources utilization activities

The previous section has highlighted the main features of the Moon Agreement and how its provisions innovate upon those of the OST and may provide useful guidance in the conduct of lunar activities.

Arguably, there are several ways in which the Moon Agreement may (or may not) impact the formation of a system of governance of lunar activities and utilization of Moon resources:

Ratification

States may deem the provisions of the Moon Agreement to provide a solid foundation for the conduct of lunar activities, including the use of resources, and thus decide to ratify the Agreement. A similar decision might be justified not only based on the rather uncontroversial nature of the provisions dealing with scientific activities on the Moon, but also because of the flexibility that the Agreement leaves Parties to determine the content of the legal regime governing the exploitation of lunar resources and the ways to implement it.

Even though ratification is one of the options available to States and nothing would legally prevent State to move in this direction, in recent years none of the main space faring countries has expressed its intention to become a Party to the Moon Agreement,

No role for the Moon Agreement

The opposite scenario to the one described above is a situation where the Moon Agreement plays no role in the formation of a system of governance of lunar activities. This could be the result of two factors; first, States rejecting in toto the approach proposed by the Moon Agreement and thus refusing to consider the value of some of its provisions regardless of the need to formally ratify them. Second, States, while seeing the usefulness of some of the principles enshrined in the Moon Agreement, would be reticent to specifically refer to them in international discussions due to their controversial meaning and the fact that major space powers have not ratified the Agreement and have, instead, proposed alternative approaches to the regulation of lunar activities.

The establishment of an international regime to govern lunar activities by the States Parties to the Moon Agreement

The most effective way for the Moon Agreement to play an impactful role in the ongoing efforts to set up a framework to govern lunar undertaking would be through the active contribution of its States Parties. In practice, this would not only mean for Parties to promote the Agreement and the advantages deriving from its participation but also to effectively implement its provision, especially those enshrined in Art. 11(5). As described above, this Articles demands States Parties to set up a legal regime to govern the exploitation of lunar resources when such exploitation is about to become feasible. Considering technological advancements and the concrete plans to return to the Moon, it is assertable that the time for the States Parties to the Moon Agreement to initiate the procedure to set up such a legal regime should be now. Arguably, such a regime, if established, would have a higher degree of legitimacy under international law than any other regime, as it would result from the implementation of an international space law treaty negotiated by States within the framework of the United Nations. In this respect, one could wonder why the States Parties to the Moon Agreement have not taken steps to implement the provisions of Article 11(5); additionally, questions remain as to the legitimacy of the conduct of some of the Parties to the Moon Agreement that, instead of attempting to implement its requirements (i.e. those of Article 11(5)), have joined initiatives that intend to set up a system of rules governing lunar activities that is separate from that envisioned by the Moon Agreement itself.

Using the provisions of the Moon Agreement outside of the Moon Agreement's framework

Another way for the Moon Agreement to impact the governance of lunar activities would be through using its provisions (and the principles that they embody) outside of the framework of the Agreement itself. This means that States would take the provisions of the Moon Agreement and use them as a source of inspiration for the development of a system of regulatory governance of future lunar endeavours. In doing so, States could use the

Agreement's provisions in their original format or rephrase them while maintaining their main content.

This option appears to be viable because the Articles of the Moon Agreement offer valuable guidance on how to regulate several of the aspects that States will have to deal with when implementing their long-term lunar plans. This is particularly true for those Articles addressing the: 1) landing and placement of personnel on the Moon; 2) the establishment of stations and facilities; 3) the protection of the lunar environment; 4) the peaceful nature of the activities undertaken. These provisions expand the concepts of freedom of scientific investigation sets out in the Outer Space Treaty and operationalize the right to explore and use outer space in relation to the Moon. Also, the provisions recognizing all persons on the Moon the status of astronauts are particularly relevant because they could represent the starting point for setting up protocols to rescue and return astronauts in distress on the Moon.

Notably, some of the provisions of the Agreement have found confirmation in the practice of States not Parties to it. This is true for the provisions recognizing the right of States to share samples of lunar soil that they have collected; indeed, the United States, Russia and China have all shared samples of lunar rocks that they have collected during their missions. Furthermore, it is also arguable that States Non-Parties to the Moon Agreement have already used its articles as a source of inspiration for the drafting of domestic measures. For example, the 2021 One Small Step to Protect Human Heritage in Space, which envisions the possibility to protect heritage sites on the Moon, like the Apollo 11 landing sites, seems to be inspired by Art. 7(3) of the Agreement, that opens the door to the designation of areas of the Moon as international scientific preserve

IV. Conclusion

Despite the limited number of ratifications and the controversial nature of some of its provisions, the Moon Agreement remains the only international treaty specifically designed to govern activities on the Moon. States should maintain a positive attitude towards the Moon Agreement and be willing to consider the potential benefits deriving from using it or incorporating its principles into the system of governance of future lunar activities.