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## Article II of the Outer Space Treaty: Prohibition of State Sovereignty, Private Property Rights, or Both?

Ricky J. Lee\*

## I. INTRODUCTION

It was clear from the beginning of space activities that the classical rules of international law on sovereignty, territory and delimitation cannot apply to outer space and celestial bodies. For example, one must not expect to be in a position to assert territorial sovereignty simply by planting a flag in the ground upon landing on the Moon. Similarly, in the modern world of rockets, ballistic missiles and interplanetary spacecraft, the traditional "cannon-shot" rule of *potestas finitur ubi finitur armorum vis* can no longer apply, regardless of whatever arbitrary limit is prescribed to be the limit of state sovereignty.<sup>1</sup>

Article II of the Outer Space Treaty contains one of the most fundamental and universally recognised principles of international space law, namely the non-appropriation principle as stated in explicit terms:

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<sup>&</sup>lt;sup>1</sup> Pop, "A Celestial Body is a Celestial Body is a Celestial Body ..." (2001) 44 Proc. Coll. L. Outer Sp. 100 at 103.

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*.<sup>2</sup>

At first glance, two issues must be clarified in order to ascertain the precise content and effect of Article II. Firstly, the adjective "national" qualifies the principle in that only "national" appropriation is prohibited. Thus the definition of the term "national appropriation", as distinct to "nonnational appropriation", must be explored. Secondly, there are several possible interpretations concerning the scope of the phrase "by any other means" for the "national" appropriation of outer space and celestial bodies. These terms are not defined in the Outer Space Treaty and, accordingly, the study of some analogies is required to ascertain their meaning. Then the precise content and effect of Article II may be distilled and applied in the context of commercial space activities.

## II. NATIONAL APPROPRIATION

The first question that needs to be addressed in the context of the scope. content and effect of Article II is its applicability to non-governmental and/or private entities. As Tennen noted, Article II does not refer explicitly to private entities even though the extension of the nonappropriation doctrine to private entities is "firmly established in space law".<sup>3</sup> As with the discussion in the context of Article VI of the Outer Space Treaty, any act of national appropriation in outer space and on celestial bodies that are conducted under the State's direction or influence, regardless of whether the act was undertaken by public or private entities, is prohibited. As Article VI requires the appropriate State to authorise and continually supervise the space activities of private entities, any act of national appropriation by private entities would be subject to the direction or influence of the State, thus contravening Article II of the Outer Space Treaty. Accordingly, it is clear that Article II must extend to private acts of national appropriation as well as those conducted directly by the State itself.

<sup>&</sup>lt;sup>2</sup> Italics added.

<sup>&</sup>lt;sup>3</sup> Tennen, "Second Commentary on Emerging System of Property Rights in Outer Space" (2003) Proceedings of the United Nations / Republic of Korea Workshop on Space Law 342 at 343.

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The second question arises, as Article II does not purportedly prohibit all forms of appropriation but merely "national" appropriation. This must be considered as an issue of *scope*, as distinct to the issue of whether Article II would have application to private and non-governmental entities, for otherwise it may be possible for States to circumvent the prohibitions contained in the Outer Space Treaty simply by "privatising" the contravening activity.<sup>4</sup> There is a significant body of opinion among commentators that Article II also prohibits the creation of private property rights.<sup>5</sup> However, in considering the meaning of "national" appropriation, it is interesting to note that the French and Spanish texts both use the similar wording to that of the English text.<sup>6</sup> The Chinese text, on the other hand, provides a different meaning in that it provides that "outer space, including the Moon and other celestial bodies, cannot, through the State by asserting sovereignty, use, occupation or any other means, be appropriated".<sup>7</sup> It is apparent that the Chinese text prohibits only appropriation of the Moon and other celestial bodies by the State and does not prohibit appropriation by private entities or, in the context of reconciling this with the other texts, that the meaning of "national" appropriation would mean appropriation by or for the State itself. Since Article XVII of the Outer Space Treaty makes the Chinese text equally authentic with the English, French, Russian and Spanish texts, the construction that is contained in the Chinese text must be given some degree of weight in determining the content and effect of Article II.

<sup>&</sup>lt;sup>4</sup> See discussion in Tennen, *supra* note 3, at 344; and Sterns and Tennen, "Privateering and Profiteering on the Moon and Other Celestial Bodies: Debunking the Myth of Property Rights in Space" (2003) 31 Adv. Space Res. 2433.

<sup>&</sup>lt;sup>5</sup> See, for example, Prevost, "Law of Outer Space Summarised" (1970) 19 Clev. St. L. Rev. 595 at 606; and Tennen, "Outer Space: A Preserve for All Humankind" (1979) 2 Hous. J. Int'l. L. 145 at 149.

<sup>&</sup>lt;sup>6</sup> The French text of Article II provides that "L'espace extra-atmosphérique, y compris la Lune et les autres corps célestes, ne peut faire l'objet d'appropriation nationale par proclamation de souveraineté, ni par voie d'utilisation ou d'occupation, ni par aucun autre moyen." Similarly, the Spanish text provides that "El espacio ultraterrestre, incluso la Luna y otros cuerpos celestes, no podrá ser objeto de apropiación nacional por reivindicación de soberanía, uso u ocupación, ni de ninguna otra manera."

<sup>&</sup>lt;sup>7</sup> Translated by the author. The Chinese text of Article II states: 「外层空间、包括月 球与其他天体在内、不得由国家通过提出主权主张、通过使用或占领、或以 任何其他方法、据为己有。」

Further, it may be useful to consider the relevant provisions of the Moon Agreement, for although it has not received widespread acceptance in the international community, its provisions may provide some guidance in the interpretation of Article II of the Outer Space Treaty, to which the Moon Agreement is intended to be an extension and thus complementary.<sup>8</sup> To that end, part of Article 11 of the Moon Agreement provides that:

- (2) The Moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means.
- (3) 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 organisation, national organisation or non-governmental entity or of any natural person. The placement of personnel, space vehicles, equipment, facilities, stations and installations on or below the surface of the Moon, including structures connected with its surface or subsurface, shall not create a right of ownership over the surface or the subsurface of the Moon or any areas thereof. ...

If "national" appropriation as contained in Article II of the Outer Space Treaty and Article 11(2) of the Moon Agreement means appropriation by both the State and private entities, then the first provision of Article 11(3) is redundant, at least to the extent that it applies to the surface of the Moon. One further noteworthy observation that may be made from this is that Article 11(3) of the Moon Agreement states that the Moon cannot become the "property" of any State, even though this would apparently be the existing effect of Article 11(2) by prohibiting the national appropriation of the Moon.

It appears from the above discussion that, if Article 11(3) of the Moon Agreement is to have a meaning distinct to that of Article 11(2) and, therefore, Article II of the Outer Space Treaty, then "national appropriation", as a term, must have a meaning different to that of attaining property rights by the State. This narrow approach to the

<sup>&</sup>lt;sup>8</sup> Galloway, "Agreement Governing the Activities of States on the Moon and Other Celestial Bodies" (1980) 5 Ann. Air & Sp. L. 481 at 498-499.

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interpretation of Article II, in contrast to a broader one that includes exclusive property rights, is supported by some commentators.<sup>9</sup> To that end, it may be prudent to contrast these provisions with Article 137 of the United Nations Convention on the Law of the Sea ("U.N.C.L.O.S."), which states that:

No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognised.<sup>10</sup>

It is clear from the above that Article 137(1) of U.N.C.L.O.S. expressly prohibits the following acts:

- claim of sovereignty over any part of the Area by a State;
- exercise of sovereignty over any part of the Area by a State;
- appropriate any part of the Area by a State; and
- appropriate any part of the Area by a natural or juridical person.

It is apparent from Article 137(1) of U.N.C.L.O.S. that it does not prohibit the exercise of sovereignty by natural or juridical persons. From this, it may be suggested that the U.N.C.L.O.S. considered that only States could assert or exercise sovereignty over territory while both States and nationals can appropriate land. This is consistent with the distinction drawn in customary international law, which considered sovereignty, or the ability to assert jurisdiction, to be the exclusive province of States and appropriation or title, or the ability to obtain exclusive possession, to be

<sup>&</sup>lt;sup>9</sup> See, for example, Christol, "The Common Heritage of Mankind Provision in the 1979 Agreement Governing the Activities of States on the Moon and other Celestial Bodies" (1980) 14 Int'l. Lawyer 429 at 448; and Gorove, "Interpreting Article II of the Outer Space Treaty" (1969) 37 Fordham L. Rev. 349 at 351.

<sup>&</sup>lt;sup>10</sup> The "Area" is defined in U.N.C.L.O.S., Article 1(1) as "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction".

capable of assertion by both States and private nationals.<sup>11</sup> When read in light of this distinction, "national appropriation" in Article II of the Outer Space Treaty may mean no more than the "exercise of sovereignty". Accordingly, Article II does not prescribe any rights or duties concerning the assertion of title by private nationals, as long as they do not amount to an exercise of sovereignty by the State as the British East India Company once did for Great Britain in earlier centuries.<sup>12</sup> Similarly, Article 11(2) of the Moon Agreement would now be consistent and complementary with Article 11(3), the former dealing with the exercise of sovereignty by States and the latter with the ability to assert title by States and private nationals. This is considered in detail below.

# III. PROHIBITION ON PROPERTY RIGHTS AS A CUSTOMARY NORM?

As Article II may not apply to prohibit the creation of private property rights on celestial bodies expressly, but merely the assertion of state sovereignty, it is necessary to consider the possibility that such a prohibition is a norm of customary international law. This is not a question of a treaty provision crystallising into customary international law, but rather the existence of a customary principle, notwithstanding the express terms of Article II, to prohibit private property rights on celestial bodies.

As early as 1961, the formulation of the provision that was to become Article II focused only on States and not on natural or juridical persons. As the United States submitted, "man should be free to venture into space without any restraints except those imposed by the laws of his own nation and by international law".<sup>13</sup> Either this may be seen as an implicit recognition that nationals, not being subjects of international law, would be bound not to exercise property rights on celestial bodies in any event, or

<sup>&</sup>lt;sup>11</sup> Gorove, "Interpreting Article II of the Outer Space Treaty" (1969) 37 Fordham L. Rev. 349 at 351; and White, "Real Property Rights in Outer Space" (1997) 40 Proc. Coll. L. Outer Sp. 370 at 372.

<sup>&</sup>lt;sup>12</sup> See, for example, Krasner, "Think Again: Sovereignty" (2001) 122 Foreign Policy 20.

<sup>&</sup>lt;sup>13</sup> Submission by Australia, Canada, Italy and the United States to the First Committee of the General Assembly, 4 December 1961, U.N.Doc. A/C.1/L.301 and A/C.1/SR.1210 at 245.

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that state sovereignty cannot be asserted by the acts of private nationals, though the language appears to suggest the former view.<sup>14</sup> This uncertainty was further emphasised by Australia as, after several drafts that did not include language concerning property rights, its representative said that draft Article II "did not make it clear that outer space was not subject to national sovereignty and that no one could acquire property rights in outer space, including the Moon and other celestial bodies".<sup>15</sup>

There were a significant number of observations and statements made by several participating States that either affirmed or denied the application of Article II to property rights. For example, the Belgian representative took the view that no one has yet denied that the term "appropriation" included "both the establishment of sovereignty and the creation of titles to property in private law".<sup>16</sup> Further, in the First Committee proceedings on the draft of Article II, France noted that the provision prohibited claims to both "sovereignty and property rights in space".<sup>17</sup> On the other hand, the statements made by Brazil,<sup>18</sup> Chile,<sup>19</sup> Japan,<sup>20</sup> the Netherlands,<sup>21</sup> and the Philippines,<sup>22</sup> in which they referred to the effect of the nonappropriation provision in preventing colonialism, international rivalries and internationalisation of outer space, would imply that they were of the view that the provision related to the prohibition of state sovereignty only. It is clear, however, that a detailed review of the travaux préparatoire suggests that no State has positively stated that Article II does not and should not extend to prohibit property rights on celestial bodies.<sup>23</sup>

In light of there being somewhat widespread acceptance by States that there is a prohibition on the claim and exercise of property rights on celestial bodies and in the absence of any contrary *opinio juris* from States,

<sup>&</sup>lt;sup>14</sup> Ibid.

<sup>&</sup>lt;sup>15</sup> (1966) U.N.Doc. A/AC.105/C.2/SR.71 and Add. 1, at 15.

<sup>&</sup>lt;sup>16</sup> Ibid., at 7.

<sup>&</sup>lt;sup>17</sup> (1966) U.N.Doc. A/C.1/PV.1492 at 429.

<sup>&</sup>lt;sup>18</sup> Ibid., at 432.

<sup>&</sup>lt;sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> Ibid., at 439.

<sup>&</sup>lt;sup>21</sup> Ibid., at 440.

<sup>&</sup>lt;sup>22</sup> (1966) U.N.Doc. A/C.1/SR.4393 at 444.

<sup>&</sup>lt;sup>23</sup> See generally Jasentuliyana and Lee (eds.), *Manual on Space Law* (1979), vol. 1.

the potential for the existence of such a customary norm must be recognised. Consequently, it may be prudent to consider that, regardless of the appropriate interpretation to be given to Article II of the Outer Space Treaty, States and private nationals may not be able to claim or exercise exclusive property rights on celestial bodies.

### **IV. "BY ANY OTHER MEANS"**

Lachs, who held the chair of the Legal Sub-Committee during the debates on the Outer Space Treaty, emphasised the prohibition of appropriation based on "use" and "occupation", as he was of the view that in such a way Article II had prevented the creation of "titles".<sup>24</sup> As discussed previously, the use of the term "title" in the context of "national appropriation" is clearly meant to indicate claims of national sovereignty by States rather than that for proprietary or private ownership rights.<sup>25</sup> In any event, having reached such a conclusion, Lachs noted the phrase "by any other means" and asked: "What other means are there?"<sup>26</sup>

Some commentators suggested that the phrase "by any other means" was not meant to refer to specific means but that it includes "whatever residue of international law applies to national appropriation, and has no limitation".<sup>27</sup> Lachs lent further support to this view by asserting that all other means were discussed "precisely to illustrate the unreality of their application to it. It was *ex abundante cautela* that these titles were indicated and at once discarded".<sup>28</sup> Further, Lachs went on to suggest three possible "other means", namely discovery, contiguity and parts of

<sup>&</sup>lt;sup>24</sup> Manfred Lachs, The Law of Outer Space: An Experience in Contemporary Law Making (1972), at 43. The British delegation was of the same view, in that "no State is able to establish an exclusive title to any part of outer space": Darwin, "The Outer Space Treaty" (1967) 42 Brit. Y. B. Int'l. L. 282.

<sup>&</sup>lt;sup>25</sup> Vlasic, "The Space Treaty: A Preliminary Evaluation" (1967) 5 Cal. L. Rev. 512.

<sup>&</sup>lt;sup>26</sup> Lachs, above n. 24, at 43.

<sup>&</sup>lt;sup>27</sup> Bhatt, "Legal Control of the Exploration and Use of the Moon and Celestial Bodies" (1968) 8 Indian J. Int'l. L. 38; and Brooks, "Control and Use of Planetary Resources" (1969) 11 Proc. Coll. L. Outer Sp. 342.

<sup>&</sup>lt;sup>28</sup> Lachs, above n. 24, at 43-44.

outer space immediately bordering airspace, and considered them all inadequate in asserting a claim of national appropriation.<sup>29</sup>

The difficulty with the approach adopted by Lachs is that it assumed that the phrase "by any other means" was subject ejusdem generis to the means already enumerated. Christol, on the other hand, was of the view that the phrase "by any other means" has a life of its own.<sup>30</sup> This is because the provision "by claims of sovereignty, by means of use or occupation" is allencompassing and thus the phrase "by any other means" would not add anything to its legal effect. Christol suggested that the negotiating history of Article II, as evidenced by the travaux préparatoire of the Outer Space Treaty, indicates that the phrase "by any other means" was designed to impose the same restrictions on individuals and private entities.<sup>31</sup> If this interpretation is accepted, then "by any other means" would include the exercise of sovereign rights by States through private use, private occupation and assertions of private exclusive rights. This interpretation, though creative, is nevertheless consistent with the idea that Article II relates only to exercise of state sovereignty or "national appropriation" and, in that context, refers only to a State exercising sovereign rights through private use or occupation of celestial bodies.

## V. PRÉCIS: CONTENT AND EFFECT OF ARTICLE II ON COMMERCIAL SPACE ACTIVITIES

Setting aside the international controversy concerning the legal validity of the claims made by States under the Bogotá Declaration, there remains a significant degree of disagreement among commentators even on the effect of Article II on exclusive claims of title asserted by non-governmental entities, such as private individuals or companies. Gorove, for example, adopted the "literalist" approach and was of the view that individuals could lawfully appropriate any part of outer space, including the Moon and other celestial bodies.<sup>32</sup> This position has found support

<sup>&</sup>lt;sup>29</sup> Ibid., at 43.

<sup>&</sup>lt;sup>30</sup> Christol, "Article 2 of the 1967 Principles Treaty Revisited" (1984) 9 Annals Air & Sp. L. 217 at 241.

<sup>&</sup>lt;sup>31</sup> Ibid., at 263.

<sup>&</sup>lt;sup>32</sup> Gorove, above n. 11, at 351.

among some other commentators, especially in the context of the allocation and use of the GEO by private entities.<sup>33</sup>

According to Christol, the more commonly accepted views on the effects of the non-appropriation principle in Article II would include:

- 1. prohibition on the appropriation by States of areas or parts of areas of the space environment;
- 2. prohibition on the appropriation by intergovernmental organisations of areas or parts of areas of the space environment;
- 3. prohibiting a State from granting to its nationals or private entities exclusive rights to the space environment; and
- 4. prohibiting an intergovernmental organisation from exercising or granting exclusive rights to the space environment.<sup>34</sup>

In the context of private and commercial entities, this effectively means that Article II operates to prohibit the appropriation or assertion of exclusive rights by States, their nationals and private entities. In other words, this means that States and private entities would not have the legal authority to assert any exclusivity over any area of space. For example, while a State or private entity can have a satellite occupying a particular orbital position around the Earth, it would not be able to assert exclusive use and occupation of that orbital position without a satellite. Similarly, States and private entities are free to build facilities and installations on the Moon and other celestial bodies and sell those facilities, but they cannot exclusively occupy or sell the underlying "land" or other vacant "land". As discussed above, however, this may not be the correct view in light of what "national appropriation" would best be given meaning as the exercise of sovereign rights. Accordingly, it may be prudent to suggest that Article II of the Outer Space Treaty is in fact silent on the issue of exclusive property rights but it does have the effect of prohibiting the exercise of sovereign rights, which is prohibited whether by claim, use or occupation by the State or its nationals.

<sup>&</sup>lt;sup>33</sup> See, for example, Rankin, "Utilization of the Geostationary Orbit — A Need for Orbital Allocation" (1974) 13 Colum. J. Trans. L. 101.

<sup>&</sup>lt;sup>34</sup> Christol, above n. 30, at 263.

## VI. RELEVANT COMPARATIVE PROVISIONS OF THE MOON AGREEMENT

## A. Non-Appropriation: Article 11(2)

Article 11 of the Moon Agreement, in seeking to repeat the provisions of Articles I and II of the Outer Space Treaty, have presented in itself some issues of interpretation that it would be prudent to investigate. To begin with, it should be noted that the Moon Agreement applies not only to the Moon, but also to other celestial bodies in the Solar System and orbits and trajectories around them.<sup>35</sup> Accordingly, the provisions of the Moon Agreement would be applicable to the Moon, the other planets and their natural satellites as well as asteroids.

In an identical manner to Article II of the Outer Space Treaty, Article 11(2) of the Moon Agreement prohibits "national appropriation" by any claim of sovereignty, by means of use or occupation or by any other means. From the analysis concerning Article II of the Outer Space Treaty above, "national appropriation" would mean no more than exercise of state sovereignty so that Article 11(2), as is the case with Article II of the Outer Space Treaty, prohibits only the exercise of state sovereignty but has no effect on the creation of exclusive property rights by States or their private nationals.

## B. Freedom of Exploration and Use: Articles 11(4) and 6

The three freedoms provided for under Article I of the Outer Space Treaty, namely the freedom of exploration, freedom of use and freedom of scientific investigation, find expression in Articles 11(4) and 6 of the Moon Agreement. Article 11(4) of the Moon Agreement provides that:

<sup>&</sup>lt;sup>35</sup> Article 1(1) of the Moon Agreement provides that: "The provisions of this Agreement relating to the Moon shall also apply to other celestial bodies within the solar system, other than the Earth, except insofar as specific legal norms enter into force with respect to any of these celestial bodies." Article 1(2) further provides that "For the purposes of this Agreement reference to the Moon shall include orbits around and other trajectories to or around it."

State Parties have the right to exploration and use of the Moon without discrimination of any kind, on the basis of equality and in accordance with international law and the terms of this Agreement.

It is clear that Article 11(4) is simply a reproduction of the language contained in Article I of the Outer Space Treaty, except that the Moon Agreement does not provide for "free access to all areas of celestial bodies". This may be considered not to be of great significance in light of the fact that the assertion and maintenance of exclusionary title on the surface and subsurface of the Moon is specifically prohibited under Article 11(3) of the Moon Agreement and generally under Article II of the Outer Space Treaty. In any event, the full force and effect of Article I of the Outer Space Treaty would continue to apply, as it is not inconsistent with Article 11(4) of the Moon Agreement.

Similarly, Article 6(1) of the Moon Agreement provides that:

There shall be freedom of scientific investigation on the Moon by all State Parties without discrimination of any kind, on the basis of equality and in accordance with international law.

The requirement that scientific investigations on the Moon be conducted on the basis of equality and without discrimination of any kind is not found in Article I of the Outer Space Treaty. This also may not necessarily be of great significance in the context of lunar activities for at least two reasons:

- 1. the activities involved in scientific investigations may well encompass the exploration and/or use of outer space and celestial bodies and, consequently, would be subject to the existing equality and non-discrimination requirements under Article I of the Outer Space Treaty and Article 11(4) of the Moon Agreement; and
- 2. Article 6(2) of the Moon Agreement, for example, provides specific rights and duties concerning the collection of mineral samples from celestial bodies, thus giving specific content to the limitations on the freedom of scientific investigation on the Moon.

## C. Prohibition of Private Title: Article 11(3)

Article 11(3) of the Moon Agreement contains the following specific prohibitions:

- 1. the surface of a celestial body or any part thereof cannot become the "property" of any State, intergovernmental or non-governmental organisation, domestic governmental or non-governmental organisation and natural persons;
- 2. the subsurface a celestial body or any part thereof cannot become the "property" of any State, intergovernmental or non-governmental organisation, domestic governmental or non-governmental organisation and natural persons;
- 3. natural resources in place on the surface or subsurface of a celestial body cannot become "property" of any State, intergovernmental or non-governmental organisation, domestic governmental or non-governmental organisation and natural persons; and
- 4. placement of personnel, vehicles, equipment, facilities, stations and installations on the surface or subsurface of a celestial body cannot create a right of "ownership" over that surface or subsurface.

There is little doubt that "property" in this case means having title, especially when taking into account the wording of the other authentic texts.<sup>36</sup> This is because, although the French word "propriété" and the Spanish word "propiedad" both for most intents and purposes means "property", the Chinese term 「财产」 can be translated as both "asset" and "property".<sup>37</sup> This is further reinforced by the reference to

<sup>37</sup> Commercial Press, A New English-Chinese Dictionary (2nd ed., 1984), at p. 75. The French text of Article 11(3) provides that "Ni la surface ni le sous-sol de la Lune, ni une partie quelconque de celle-ci ou les ressources naturelles qui s'y trouvent, ne peuvent devenir la propriété d'États, d'organisations internationales intergouvernementales ou non gouvernementales, d'organisations nationales ou d'entités gouvernementales, ou de personnes physiques. L'installation à la surface ou sous la surface de la Lune de personnel ou de véhicules, matériel, stations, installations ou équipements spatiaux, y compris d'ouvrages reliés à sa surface ou à son sous-sol, ne

<sup>&</sup>lt;sup>36</sup> Article 21 of the Moon Agreement provides that the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic.

"ownership" in the last provision of Article 11(3), indicating that "property" in this context must be the exercise of some form of title or property right over the surface or subsurface of the Moon or other celestial bodies, including its natural resources.

This effectively means that, although there are a significant number of commentators who were of the view that Article II of the Outer Space Treaty prohibited the creation of property rights on celestial bodies, this prohibition arguably did not in fact come into existence until the adoption of Article 11(3) of the Moon Agreement. In a practical context, with the extraction of mineral resources as an example, these prohibitions clearly impose a severe constraint on the ability of States and private entities to engage in the extraction of mineral resources from the surface or subsurface of celestial bodies.

### **VII. CONCLUDING OBSERVATIONS**

It is clear from the above discussion that, even in light of the general rejection to the Moon Agreement, the assertion of private property rights may well be prohibited by the terms of Article II of the Outer Space Treaty. In any event, there may be sufficient state practice and/or *opinio juris* to support the notion that the prohibition of private property rights may be a principle of customary international law.

crée pas de droits de propriété sur la surface ou le sous-sol de la Lune ou sur une partie quelconque de celle-ci...". The Spanish text states that "Ni la superficie ni la subsuperficie de la Luna, ni ninguna de sus partes o recursos naturales podrán ser propiedad de ningún Estado, organización internacional intergubernamental o no gubernamental, organización nacional o entidad no gubernamental ni de ninguna persona física. El emplazamiento de personal, vehículos espaciales, equipo, material, estaciones e instalaciones sobre o bajo la superficie de la Luna, incluidas las estructuras unidas a su superficie o la subsuperficie, no creará derechos de propiedad sobre la superficie o la subsuperficie de la Luna o parte alguna de ellas …". The Chinese text provides that 「月球的表面或表面下层或其任何部分或其中的自然资源均不应 成为任何国家、政府间或非政府国际组织国家组织、或非政府实体或任何自 然人的财产。在月球表面或表面下层,包括与月球表面或表面下层相连接的构 造物在内,安置人员、外空运载器、装备设施、站所和装置、不应视为对月球 或其任何领域的表面或表面下层取得所有权。…]

Recent controversies have arisen concerning the ability of private persons to assert title over parts of the surfaces of the Moon and the planets, such as Mars, Mercury and Venus. Although such assertions are harmless in the absence of any practical or real means of access and occupation, it may be necessary in the near to medium term future for the international community to further clarify these issues prior to space mining and other ventures raising private property rights as real possibilities.