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Proposal for the establishment of a working group for the development of an international regime for the utilization and exploitation of space resources

Working paper by Belgium and Greece

1. The issue of potential legal models for activities in the exploration, exploitation and utilization of space resources was discussed during the fifty-seventh session of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space, under agenda item 15.
2. During the discussion, the delegation of Greece proposed the idea of creating an ad hoc working group of the Subcommittee with a mandate to develop and propose alternative legal solutions capable of providing the legal certainty necessary for acts of exploration, exploitation and utilization of outer space resources.¹ The proposal was supported by at least one other delegation.
3. Furthermore, under agenda item 16 (Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-eighth session), the delegation of Greece expressed the view that consideration of agenda item 15 should be included in the work of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, in order to stimulate a focused debate.
4. The proposal was supported by Belgium, Brazil, China and other States. Following a proposal by Brazil, those States expressed their intention to hold consultations during the intersessional period, with a view to presenting to the Subcommittee at its fifty-eighth session, in 2019, a proposal for its consideration containing objectives and modalities for the inclusion of that item on the agenda of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.²
5. The present working paper constitutes a first effort by Belgium and Greece to initiate the relevant discussion in the context of the aforementioned informal consultations.

¹ A/AC.105/1177, paras. 264 and 265.

² Ibid., paras. 269 and 271.



6. Over the last few years, there has been intense debate on the development of activities related to the exploration, exploitation and utilization of outer space resources. This debate must take into account the existence of relevant ambitions, the attraction of significant investment and the development of the necessary technology, so that planned, public or private activities of such a character in outer space have a promising future. What is more, such activities need a solid, unequivocal legal regime, which should be formulated on the basis of the following principles of international space law in force.

I. Relevant principles of international space law in force

A. Exploration and use of outer space as the province of all humankind

7. According to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, outer space constitutes an area beyond the jurisdiction of States. This is clear from, inter alia, article I, paragraphs 1 and 2, of the Outer Space Treaty, which state that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all humankind and that outer space shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.

8. The absence of any national jurisdiction over outer space, or parts thereof, is also patent in the principle of non-appropriation, enshrined in article II of the Outer Space Treaty, pursuant to which 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.

B. Outer space is a common space regulated by international law

9. All activities in the exploration and use of outer space are regulated by international law. This is apparent from articles I, II, III and VI of the Outer Space Treaty. Although article VI characterizes all activities of States in outer space as “national” space activities,³ article III provides that States parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding.

10. The applicability of international law is further reinforced by article I, in which it is stipulated that outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law.

11. Article I of the Outer Space Treaty thus pronounces the need to adopt space law rules of an international nature to regulate the use of space (and its resources). Of course, States may authorize the space activities of their nationals. However, this personal basis for the exercise of national jurisdiction does not provide any basis for legislative jurisdiction in terms of regulating the legal status of outer space itself. It follows that the legal aspects of space resource exploitation must be regulated by international law.

³ Article VI of the Outer Space Treaty also makes it clear that the main purpose of national space law and the obligation of supervision is for States to ensure that national activities are carried out in conformity with the provisions set forth in the Treaty.

12. With respect to the exploration and exploitation of outer space, international space law in force mainly comprises the Outer Space Treaty and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. To date, 18 States have ratified the Moon Agreement, which provides, in its article 11, for the obligation among States parties to undertake to establish an international regime of exploitation of the natural resources of the Moon, “as such exploitation is about to become feasible”. For the majority of the members of the Committee that have not yet ratified the Agreement, the international norms applicable to the exploration and exploitation of outer space are the relevant provisions of the Outer Space Treaty. In this context, particular attention must be given to articles I and II of the Outer Space Treaty.

C. Global governance of outer space activities is international in character

13. In the context of the present working paper, the term “governance” is defined as the way that outer space is managed at the highest level and the systems for doing so. Given the nature of outer space as a global commons and taking into consideration the role of international law in this respect,⁴ it can be validly concluded that the rules in force with respect to the governance of celestial bodies and of the void of outer space (including orbits around the Earth or other celestial bodies) are part of international law.

14. It follows that activities in outer space, whether public or private in nature, are governed by international law.

15. Such international governance, in order to be effective, requires, in the medium or long term, the establishment of an international institutional framework. Past legal experience in this respect includes the administration of international airspace by the International Civil Aviation Organization (through the recognition, by its member States, of a series of functional jurisdictions inside the so-called “flight information regions”), the administration of the seabed by the International Seabed Authority (United Nations Convention on the Law of the Sea, part XI, in combination with the 1994 Agreement relating to the Implementation of Part XI), the frequency spectrum management regime of the International Telecommunication Union and the legal regime governing Antarctica (under the 1959 Antarctic Treaty).

16. The need for an international legal regime for space resource exploitation also arises from the fact that national approaches to space resource exploitation are bound to result in conflicts between competing players, if left to evolve on their own without international guidance. Hence, even if there is no legal objection to States interpreting at will their international obligations under the Outer Space Treaty when regulating space resources, there is still a clear need for an international institutional framework to regulate competing activities. In order for such a framework to be effective, it would have to be focused on the main purposes described in article 11, paragraph 7, of the Moon Agreement, the value of which is greater and goes beyond any views on the ratification of the Moon Agreement. Those purposes include the following: (a) the orderly and safe development of natural resources from outer space; (b) the rational management of those resources; (c) the expansion of opportunities in the use of those resources; and (d) an equitable sharing by all States in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of outer space, shall be given special consideration.

17. It is therefore reasonable to conclude that the establishment of an international governance framework for outer space activities constitutes a sine qua non for the efficient, lawful and sustainable exploitation of outer space resources that is independent of the nature of the stakeholders involved.

⁴ A/AC.105/1177, para. 264.

D. The outer space treaties impose enhanced international cooperation with respect to the exploration and use of outer space

18. An international governance scheme for outer space activities (and, consequently, for any attempt to exploit resources in outer space) presupposes the establishment of enhanced international cooperation. International cooperation is at the heart and in the spirit of the Outer Space Treaty; articles I, III, V and IX–XII are based on or refer to it. What is more, the importance of international cooperation in outer space is reflected, constantly and continuously, in the animus of the international space community, as it is often repeated in numerous General Assembly resolutions. For instance, in the Declaration on the fiftieth anniversary of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, adopted by the General Assembly in its resolution [72/78](#), Member States emphasized the constantly evolving and increasingly multifaceted nature of international cooperation in the peaceful uses of outer space, with fundamentally complex scientific and technological advancements in the space field and an increasing variety of actors in the space arena, and therefore encouraged the building of stronger partnerships, cooperation and coordination. Also in that Declaration, Member States recognized the need for further promotion of international cooperation in the peaceful uses of outer space, taking into account the particular needs of developing countries.

19. Furthermore, in its resolution [72/77](#), entitled “International cooperation in the peaceful uses of outer space”, the General Assembly reaffirmed the importance of international cooperation in developing the rule of international law, including the relevant norms of international space law and their important role in international cooperation for the exploration and use of outer space for peaceful purposes, and of the widest possible adherence to international treaties promoting the peaceful uses of outer space in order to meet emerging new challenges, especially for developing countries.⁵

20. The requirement for international cooperation in the specific field of space resource exploitation calls for increased multilateralism in planning, organizing, extracting and exploiting space resources; article 11 of the Moon Agreement, even though currently only ratified by 18 States, can provide a useful starting point for further discussions concerning the establishment of an international regime for the exploitation of space resources in accordance with established principles of international space law.

II. The way forward

21. Constructive discussions aimed at the solution of complex legal problems require both a shared factual basis and a well-structured workplan implemented through a broadly recognized, inclusive platform with the appropriate legal mandate.

22. It is proposed that the efficient and orderly management of space resource exploitation should proceed on the basis of a structured, multi-year and multilayered discussion concerning its legal regulation at the international level. This discussion should be based on a collection of up-to-date information from all relevant stakeholders in this emerging field, as the first step towards arriving at a workable

⁵ See also the following General Assembly resolutions: [51/122](#) of 13 December 1996, [54/68](#) of 6 December 1999, [59/2](#) of 20 October 2004, [61/110](#) and [61/111](#) of 14 December 2006, [62/101](#) of 17 December 2007, [62/217](#) of 22 December 2007, [65/97](#) of 10 December 2010, [65/271](#) of 7 April 2011, [66/71](#) of 9 December 2011, [67/113](#) of 18 December 2012, [68/50](#) of 5 December 2013, [68/74](#) and [68/75](#) of 11 December 2013, [69/85](#) of 5 December 2014, [70/1](#) of 25 September 2015, [70/82](#) of 9 December 2015, [70/230](#) of 23 December 2015 and [71/90](#) of 6 December 2016.

regime that facilitates the exploitation of space resources in line with existing international space law.

23. Considering the current state of play of the space resources industry and the fragmented nature of technical, economic and scientific information concerning space resources, it is therefore deemed indispensable that legal discussions start with the organization of one or more information-gathering rounds to ensure a common understanding and shared factual basis.

24. The interpretation of international legal principles, such as those contained in the Outer Space Treaty, remains the prerogative of States. For this reason, and taking into account the mandate of the Committee on the Peaceful Uses of Outer Space, specified in General Assembly resolution 1472 (XIV) of 12 December 1959, to study the nature of legal problems that may arise from the exploration of outer space, and in that connection, also taking into account the Committee's role in both developing legal instruments, be they binding or non-binding, and providing a platform for constructive discussions on these issues, Belgium and Greece consider the Committee to be the primary forum for intergovernmental discussions and negotiations on the future regime for space resource exploitation. This is further supported by the observation that a major source of legal uncertainty concerning the regulation of this activity stems from the fact that States have different views on how to interpret the principles laid down in legal instruments that were developed by the States members of this same Committee, which is therefore in a unique position to offer pertinent clarifications.

25. In the light of the above, it appears that the so-called "new space" activities in outer space, in particular the emergence of a strong tendency for private space resource exploitation, require a significant effort to re-evaluate the collective body of space law, as incorporated in the five United Nations treaties on outer space.

26. Given the permanent and unequivocal affirmation by the international community of the fundamental principles enshrined in the Outer Space Treaty, such a re-evaluation would not be aimed at challenging the validity of these principles, but merely at shedding more light on their scope of application. This discussion obviously enters into the realm of the "status and application" of the United Nations treaties on outer space and, consequently, inserting the "potential models" issue into the work of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space would certainly not only have a positive impact on the search for a viable international legal regime for space resource exploitation that is in conformity with international law and for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, but would also lead to a better understanding of the legal principles that govern the space adventure of humankind.

27. However, potential concerns in relation to the already sizeable work of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space and its capability to handle one more important issue must be taken into consideration, particularly in the light of the disparate legal positions expressed during the discussions in 2017 and 2018 under the agenda item on general exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources, which have demonstrated the need for a constructive, multi-year process on space resource regulation within the Committee.

28. It follows that the establishment of an ad hoc working group on this matter should be provided as an alternative and preferable option. Indeed, the importance of arriving at a sustainable and efficient framework of space resource regulations and the contentious nature of the issues at stake are best served by the establishment of such a separate working group under the current item on space resources, rather than merging these complex issues with discussions of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.

29. In accordance with established practice within the Legal Subcommittee, such a future working group on space resources would need to have a well-defined scope of work and proceed on the basis of a commonly agreed timeline to produce a report addressing specific issues identified in advance by the States members of the Committee. Some States members of the Committee have already put forward documents identifying such specific issues (for example, the working paper prepared by Belgium (A/AC.105/C.2/2018/CRP.8)), and those issues form the basis of the following preliminary list of issues that can be considered as deserving priority treatment by any future working group on space resources:

- (a) Definition of terms and application of general principles on the exploration and use of outer space to the developing activity of space resource exploitation;
- (b) Relationship with other international legal regimes on the exploitation of natural resources in international areas, such as the orbit and frequency regime of the International Telecommunication Union and the deep seabed regime;
- (c) Identification and determination of the legal relevance of emerging State and other practice concerning space resources;
- (d) Exclusive nature of future rights concerning space resources;
- (e) Temporal and geographical delimitation of claims over areas containing space resources to support an efficient and rational use of those resources;
- (f) Scientific collection of data and information-sharing obligations concerning activities of space resource exploitation;
- (g) Benefit-sharing of space resource activities, taking into account the contributions of resource-collecting States and the needs of developing and non-spacefaring countries;
- (h) Coordination of competing claims and dispute settlement;
- (i) Institutional framework for space resource management;
- (j) Appropriate means to ensure the sustainability and environmental compatibility of space resource exploitation activities.

30. As noted, the discussion of these and other issues should be informed by the views of different expert groups comprising scientific, economic, technical and legal experts in order to establish a shared factual basis from which to proceed. In this respect, much can be learned from the experience of the Working Group on the Long-term Sustainability of Outer Space Activities, which relied in large part on expert groups comprising scientific, technical, policy and legal experts nominated by member States and international intergovernmental organizations with permanent observer status in the Committee. In contrast to the diplomatic negotiation format of the Committee discussions, the expert groups were deliberative forums in which the technical experts from a wide range of countries exchanged their views and experience and proposed draft guidelines for the consideration of the Working Group.

31. The novel nature of the activities under discussion and their expected impact also requires that any future working group on space resources coordinate with other actors. In particular, the potentially disruptive economic impact of space resource exploitation activities on existing global inequalities indicates a pressing need to cooperate with existing mechanisms working on the implementation and realization of the Sustainable Development Goals.

32. In this regard, it is important to ensure appropriate coordination between the proposed working group on space resources and the working group established under the new item on the Committee's agenda, entitled "'Space2030' agenda", which is to remain on the Committee's agenda until its sixty-third session, in 2020 (A/73/20, paras. 359 and 360).

33. Finally, a comprehensive workplan for the regulation of space resource exploitation should also aim to incorporate the legal positions of those States that

have ratified the Moon Agreement. While the possibility must be recognized that the legal situation of those States may differ from that of other States that have not ratified the Moon Agreement, current developments may be interpreted as meeting the condition for the activation of the obligations of States parties to the Agreement to undertake to establish an international regime on space resource exploitation, as such exploitation is about to become feasible (Moon Agreement, art. 11, para. 5). To avoid the establishment of separate international regimes, any future working group on space resources must incorporate institutional mechanisms to properly align its discussions with possible parallel discussions among States parties to the Moon Agreement in this respect.
