

20 March 2023

English only

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**Committee on the Peaceful  
Uses of Outer Space  
Legal Subcommittee  
Sixty-Second session  
Vienna, 20–31 March 2023  
Item 10 of the provisional agenda\*  
General exchange of views on potential legal models  
for activities in the exploration, exploitation, and  
utilization of space resources**

**Relevant considerations for developing a set of initial  
recommended principles for the exploration, exploitation  
and utilisation of space resources**

Proposal submitted by Australia, Austria and Netherlands (Kingdom of the)

**I. Introduction**

1. Since the 56th session of the Legal Subcommittee, the agenda item ‘General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources’ has provided States members and permanent observers of the Committee ‘an opportunity for a constructive, multilateral exchange of views on such activities, including their economic aspects’.
2. The establishment of the working group under that agenda item at the 60th session of the Legal Subcommittee provides a further opportunity for this exchange. The Working Group on Legal Aspects of Space Resource Activities (the Working Group), led by Mr. Andrzej Misztal as Chair and Prof Steven Freeland as Vice-Chair, provides a timely forum to continue multilateral discussion, with a view to developing a set of initial recommended principles for the exploration, exploitation and utilization of space resources. The objective is to ensure that space resources activities are carried out in accordance with international law and in a safe, sustainable, rational and peaceful manner.
3. This submission provides relevant considerations for developing a set of initial recommended principles for the exploration, exploitation and utilisation of space resources.
4. A survey of key themes which are addressed in selected instruments of the existing framework has been undertaken to support this submission and is included as Attachment A.

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



## II. Background on the Moon Agreement

5. The *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (the Moon Agreement) was adopted by the General Assembly in 1979 in [resolution 34/68](#), following consideration and elaboration of the treaty text by the Legal Subcommittee. The Moon Agreement entered into force in July 1984.

6. The Moon Agreement provides a framework specific to the exploration, exploitation and use of the Moon and its natural resources. It contains an articulate mandate for the governance of space resources activities with its provision in Article 11(5) for States Parties to establish an international regime to govern the exploitation of the Moon's natural resources as such exploitation is about to become feasible. Article 11(7) outlines the main purposes of the international regime:

- (a) The orderly and safe development of the natural resources of the Moon;
- (b) The rational management of those resources;
- (c) The expansion of opportunities in the use of those resources;

(d) An equitable sharing by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as efforts of those countries which have contributed either directly or indirectly to the exploration of the Moon, shall be given special consideration.

7. Outside of these four main purposes, it is incumbent upon States Parties to negotiate and develop the precise contours of the international regime. The international regime may consist in any mechanism of international cooperation deemed appropriate and able to establish the necessary procedures governing exploitation. It may also be integrated in already existing structures or organisations. However, in compliance with Articles 11(5) and 18 of the Moon Agreement, the international regime should only be established or amended by the decision of the States Parties to the Agreement.

8. Article 11(7) of the Moon Agreement provides that the main purposes of the international regime to be established (pursuant to Article 11(5)) include the orderly and safe development of the natural resources of the Moon. The international regime should coordinate exploitation in order to avoid competing interests and conflicts.

### **Rational management of the Moon's natural resources**

9. Article 11(7) of the Moon Agreement also provides for the inclusion of appropriate measures to ensure the rational management of the natural resources of the Moon as part of the international regime. Any exploitation of resources in the framework of the international regime should be based on the principles of avoidance of harmful contamination, and efficiency.

### **Expansion of opportunities in the use of the Moon's natural resources**

10. Article 11(7) of the Moon Agreement also provides for the inclusion of appropriate measures to support the expansion of opportunities in the use of the natural resources of the Moon as part of the international regime. The preamble of the Moon Agreement indicates that the further development of cooperation among States in the exploration and use of the Moon and other celestial bodies should be promoted on the basis of equality.

### **Equitable sharing by all States Parties in the benefits derived from the Moon's natural resources**

11. As part of the international regime to be established under Article 11(5), Article 11(7) of the Moon Agreement provides for the inclusion of appropriate measures to enable an equitable sharing by all States Parties in the benefits derived from the Moon's natural resources. The interests and needs of developing countries, as well as the efforts of those countries which have contributed either directly or

indirectly to the exploration of the Moon, are to be given special consideration. Another relevant consideration is Article 4 of the Moon Agreement, which states the exploration and use of the Moon shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development.

### **III. Background on The Hague Building Blocks**

12. In order to create an enabling environment for space resource activities, the Hague International Space Resources Governance Working Group was created to promote international cooperation and multi-stakeholder dialogue. It has designed building blocks to lay the groundwork for international discussions on the potential development of an international framework, without prejudice to its form and structure. They contain provisions on the definitions, principles, jurisdiction and responsibility, access and utilisation, and institutional aspects of space resource activities.

### **IV. Background on the Artemis Accords**

13. The Artemis Accords describe a common vision via a practical set of principles, guidelines, and best practices, grounded in 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 Treaty) of 1967, to create a safe and transparent environment which facilitates exploration, science, and commercial activities for all of humanity to enjoy.

14. The principles set out in the Accords are intended to apply to civil space activities that may take place on the Moon, Mars, comets, and asteroids, including their surfaces and sub-surfaces, as well as in orbit of the Moon or Mars, in the Lagrangian points for the Earth/Moon system, and in transit between these celestial bodies and locations. The Artemis Accords are non-binding and reflect a political commitment, and cover issues such as space resource extraction and use, deconfliction of space activities and preserving outer space heritage.

### **V. Relevant considerations for developing a set of initial recommended principles for the exploration, exploitation and utilization of space resources**

15. Relevant considerations include exploring the themes as set out in Attachment A, including in discussions in the Working Group on Legal Aspects of Space Resource Activities.

### **VI. Conclusion**

16. The States Members submitting this paper are of the view that general themes within the Outer Space Treaty, Moon Agreement, the Artemis Accords and the Hague Building Blocks, as outlined in Attachment A, can meaningfully inform considerations regarding the development of a set of initial recommended principles for activities in the exploration, exploitation and utilization of space resources.

## Study of Existing Framework in Outer Space Treaty and other Relevant Instruments

- This table draws out general themes and extracts existing obligations, commitments or guidelines<sup>1</sup> from four instruments that may be applicable to space resource activities – the Outer Space Treaty, Moon Agreement, the Hague Building Blocks, and the Artemis Accords.

Theme	BINDING		NON-BINDING	
	Outer Space Treaty	Moon Agreement	Hague Building Blocks	Artemis Accords
<b>Exploration and use</b>	<p>Art 1 The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for <b>the benefit and in the interests of all countries</b>, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.</p> <p>Outer space, including the moon and other celestial bodies, shall be <b>free for exploration and use by all States without discrimination of any kind</b>, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.</p> <p>There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies, and States shall facilitate and encourage</p>	<p>Art 4 1. The exploration and use of the moon shall be the province of all mankind and <b>shall be carried out for the benefit and in the interests of all countries</b>, irrespective of their degree of economic or scientific development. <b>Due regard shall be paid to the interests of present and future generations</b> as well as to the <b>need to promote higher standards of living and conditions of economic and social progress and development in accordance with the Charter of the United Nations</b>.</p> <p>2. States Parties shall be guided by the principle of <b>co-operation and mutual assistance</b> in all their activities concerning the exploration and use of the moon. International co-operation in</p>	<p>Art 4(2)(f) The international framework should be designed so as to ... Promote the sustainable, rational, efficient and economic use of space resources.</p> <p>Art 13.1 Bearing in mind that the <b>exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and humankind</b>, the international framework should provide that States and international organizations responsible for space resource activities shall <b>provide for benefit-sharing through the promotion of the participation in space resource activities by all countries, in particular developing countries</b>.</p>	<p>Sec 1 The purpose of these Accords is to establish a common vision via a practical set of principles, guidelines, and best practices to enhance the governance of the civil <b>exploration and use of outer space</b> with the intention of advancing the Artemis Program. Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to increase the safety of operations, reduce uncertainty, and promote the <b>sustainable and beneficial use of space for all humankind</b>. The Accords represent a political commitment to the principles described herein, many of which provide for operational implementation of important obligations contained in the Outer Space Treaty and other instruments.</p>

<sup>1</sup> For ease of reading the table, only the relevant sentences of each provision has been extracted, not the full provision

	BINDING		NON-BINDING	
Theme	Outer Space Treaty	Moon Agreement	Hague Building Blocks	Artemis Accords
	international co-operation in such investigation.	pursuance of this Agreement should be as wide as possible and may take place on a multilateral basis, on a bilateral basis or through international intergovernmental organizations.		
<b>Non-Appropriation</b>	Art 2 Outer space, including the moon and other celestial bodies, is <b>not subject to national appropriation</b> by claim of sovereignty, by means of use or occupation, or by any other means.	Art 11 2. The moon is <b>not subject to national appropriation</b> by any claim of sovereignty, by means of use or occupation, or by any other means.	Art 8.2 The international framework should ensure that the utilization of space resources is carried <b>out in accordance with the principle of non- appropriation under Article II OST</b>	Sec 10 2.The Signatories emphasize that the extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities. <b>The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty</b> , and that contracts and other legal instruments relating to space resources should be consistent with that Treaty
<b>In accordance with international Law</b>	Art 3 States Parties to the Treaty shall carry on activities in the exploration and use of outer	Art 2 All activities on the moon, including its exploration and use, shall be carried out <b>in</b>	Art 4.1 The international framework should be consistent with international law.	Sec 3 The Signatories affirm that cooperative activities under these Accords should be

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	space, including the moon and other celestial bodies, <b>in accordance with international law, including the Charter of the United Nations</b> , in the interest of maintaining international peace and security and promoting international co-operation and understanding.	<b>accordance with international law, in particular the Charter of the United Nations, and taking into account the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States</b> in accordance with the Charter of the United Nations, adopted by the General Assembly on 24 October 1970, in the interest of maintaining international peace and security and promoting international co-operation and mutual understanding, and with due regard to the corresponding interests of all other States Parties.		<b>exclusively for peaceful purposes and in accordance with relevant international law</b>
<b>Benefit to mankind</b>	Art 1 The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out <b>for the benefit and in the interests of all countries</b> , irrespective of their degree of economic or scientific development, and shall be the <b>province of all mankind...</b>	Art 4 1.The exploration and use of the moon shall be the <b>province of all mankind and shall be carried out for the benefit and in the interests of all countries</b> , irrespective of their degree of economic or scientific development...  Art 11 1. The moon and its natural resources are the <b>common</b>	Art 1.1 The international framework should create an enabling environment for space resource activities that takes into account all interests and benefits <b>all countries and humankind.</b>  Art 4(3)(b) The international framework should provide that: ... Space resource activities shall be carried out for the benefit and in the interests of all countries and	Sec 1 Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to increase the safety of operations, reduce uncertainty, and promote the sustainable and <b>beneficial use of space for all humankind.</b>

	BINDING		NON-BINDING	
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		<p><b>heritage of mankind</b>, which finds its expression in the provisions of this Agreement, in particular in paragraph 5 of this article.</p>	<p>humankind irrespective of their degree of economic and scientific development;</p> <p>Art 9 The international framework should provide that States and international organizations responsible for space resource activities shall give due regard to the corresponding interests of all countries and humankind.</p>	
<b>Benefit sharing</b>	NIL	<p>Art 11 7. The main purposes of the international regime to be established shall include: (a) <b>The orderly and safe development of the natural resources of the moon;</b> (b) <b>The rational management of those resources;</b> (c) <b>The expansion of opportunities in the use of those resources;</b> (d) <b>An equitable sharing</b> by all States Parties 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</p>	<p>Art 13.1 Bearing in mind that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and humankind, the international framework should provide that States and international organizations responsible for space resource activities shall provide for benefit-sharing through the promotion of the participation in space resource activities by all countries, in particular developing countries. Benefits may include, but not be limited to, enabling, facilitating, promoting, and fostering:</p>	NIL

	BINDING		NON-BINDING	
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		<p>contributed either directly or indirectly to the exploration of the moon, shall be given special consideration.</p>	<p>(a) The development of space science and technology and of its applications;            (b) The development of relevant and appropriate capabilities in interested States;            (c) Cooperation and contribution in education and training;            (d) Access to exchange of information            (e) Incentivization of joint ventures;            (f) The exchange of expertise and technology among States on a mutually acceptable basis;            (g) The establishment of an international fund.</p> <p>Art 13.2            The international framework should not require compulsory monetary benefit-sharing.</p> <p>Art 13.3            Operators should be encouraged to provide for benefit-sharing.</p>	
<b>Establishment of an international regime</b>	NIL	<p>Art 11            5. States Parties to this Agreement hereby undertake to <b>establish an international regime, including appropriate procedures, to govern the</b></p>	<p>Art 1.1            The international framework should create an <b>enabling environment for space resource activities</b> that takes into account</p>	NIL



	BINDING		NON-BINDING	
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		<p><b>exploitation of the natural resources</b> of the moon as such exploitation is about to become feasible. This provision shall be implemented in accordance with <a href="#">article 18</a> of this Agreement.</p>	<p>all interests and benefits all countries and humankind.</p>	
<p><b>Purposes of an international regime</b></p>	<p>As a subset of the purpose of broader exploration and use:</p> <p>Art 1  <b>The exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries,</b> irrespective of their degree of economic or scientific development, and shall be the province of all mankind.</p>	<p>Moon Agreement specific:</p> <p>Art 11            7. The main purposes of the international regime to be established shall include:            (a) <b>The orderly and safe development of the natural resources of the moon;</b>            (b) <b>The rational management of those resources;</b>            (c) <b>The expansion of opportunities in the use of those resources;</b>            (d) <b>An equitable sharing</b> by all States Parties 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 the moon, shall be given special consideration.</p>	<p>Art 4.2            The international framework should be designed so as to:            a) Adhere to the principle of adaptive governance by incrementally regulating space resource activities at the appropriate time;            b) Promote compatibility and predictability of domestic frameworks of States and internal frameworks of international organizations;            c) Contribute to sustainable development;            d) Prevent disputes arising out of space resource activities;            e) Promote and secure the orderly and safe utilization of space resources;            f) Promote the sustainable, rational, efficient and economic use of space resources;            g) Promote the use of sustainable technology;</p>	<p>Artemis Accords specific:</p> <p>Sec 1            The purpose of these Accords is to establish a common vision via a practical set of principles, guidelines, and best practices to <b>enhance the governance of the civil exploration and use of outer space with the intention of advancing the Artemis Program.</b> Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to <b>increase the safety of operations, reduce uncertainty, and promote the sustainable and beneficial use of space for all humankind.</b></p>

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			<p>h) Provide legal certainty and predictability for operators;</p> <p>i) Take into particular account the needs of developing countries;</p> <p>j) Take into particular account the needs of science;</p> <p>k) Take into particular account the contributions of pioneer operators.</p>	
<b>Due Regard</b>	<p>Art IX</p> <p>In the exploration and use of outer space, including the moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of co-operation and mutual assistance and shall conduct all their activities in outer space, including the moon and other celestial bodies, <b>with due regard to the corresponding interests of all other States Parties to the Treaty.</b></p>	<p>Art 2</p> <p>All activities on the moon, including its exploration and use, shall be carried out in accordance with international law... in the interest of maintaining international peace and security and promoting international co-operation and mutual understanding, and with <b>due regard to the corresponding interests of all other States Parties.</b></p> <p>Art 4</p> <p>1. The exploration and use of the moon shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of</p>	<p>Art 9</p> <p>The international framework should provide that States and international organizations responsible for space resource activities shall give <b>due regard to the corresponding interests of all countries and humankind.</b></p>	<p>Sec 11.1</p> <p>The Signatories acknowledge and <b>reaffirm their commitment to the Outer Space Treaty, including those provisions relating to due regard</b> and harmful interference.</p> <p>Sec 11.3</p> <p>Consistent with Article IX of the Outer Space Treaty, a Signatory authorizing an activity under these Accords <b>commits to respect the principle of due regard.</b> A Signatory to these Accords with reason to believe that it may suffer, or has suffered, harmful interference, may request consultations with a Signatory or any other Party to the Outer Space Treaty authorizing the activity</p>

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		economic or scientific development. <b>Due regard shall be paid to the interests of present and future generations as well as to the need to promote higher standards of living and conditions of economic and social progress and development in accordance with the Charter of the United Nations.</b>		
<b>Cooperation</b>	<p>Art 1 There shall be freedom of scientific investigation in outer space, including the moon and other celestial bodies, and <b>States shall facilitate and encourage international co-operation</b> in such investigation.</p> <p>Art 3 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, <b>in the interest of maintaining international peace and security and promoting</b></p>	<p>Art 4.2 <b>States Parties shall be guided by the principle of co-operation and mutual assistance in all their activities concerning the exploration and use of the moon.</b> International co-operation in pursuance of this Agreement should be as wide as possible and may take place on a multilateral basis, on a bilateral basis or through international intergovernmental organizations.</p>	<p>Art 4.3 The international framework should provide that: <b>International cooperation in space resource activities shall be conducted in accordance with international law.</b></p> <p>Art 13.1 Bearing in mind that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and humankind, the international framework should provide that States and international organizations responsible for space resource activities shall provide for benefit-sharing through the</p>	<p>Sec 13 1. Building on any consultative mechanisms in pre-existing arrangements as appropriate, the Signatories commit to periodically consult to review the implementation of the principles in these Accords, and to <b>exchange views on potential areas of future cooperation.</b></p> <p>Sec 2 (b) <b>The Signatories’ bilateral instruments referred to above are expected to contain other provisions necessary to conduct such cooperation</b>, including those related to liability, intellectual property, and the transfer of goods and technical data</p>

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	<p><b>international co-operation and understanding.</b></p> <p>Art IX In the exploration and use of outer space, including the moon and other celestial bodies, <b>States Parties to the Treaty shall be guided by the principle of co-operation and mutual assistance</b> and 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</p>		<p>promotion of the participation in space resource activities by all countries, in particular developing countries. Benefits may include, but not be limited to enabling, facilitating, promoting and fostering:</p> <p>...</p> <p><b>c) cooperation and contribution in education and training;</b></p> <p>...</p>	
<b>International organisations - acceptance of rights and obligations</b>	<p>Art XIII The provisions of this Treaty shall apply to the activities of States Parties to the Treaty in the exploration and use of outer space, including the moon and other celestial bodies, whether such activities are carried on by a single State Party to the Treaty or jointly with other States, including cases where they are carried on within the framework of international intergovernmental organizations.</p>	<p>Art 16 With the exception of articles 17 to 21, references in this Agreement to States shall be deemed to apply to any international intergovernmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Agreement and if a majority of the States members of the organization are States Parties to this Agreement and to the Treaty</p>	<p>Art 3.1 The international framework should address States and international organizations, and could provide for the regulation of the conduct of States, international organizations and non-governmental entities.</p> <p>Art 5(c) When space resource activities are carried out by an international organization, responsibility for compliance with the international framework</p>	NIL

	BINDING		NON-BINDING	
Theme	Outer Space Treaty	Moon Agreement	Hague Building Blocks	Artemis Accords
	Any practical questions arising in connection with activities carried on by international intergovernmental organizations in the exploration and use of outer space, including the moon and other celestial bodies, shall be resolved by the States Parties to the Treaty either with the appropriate international organization or with one or more States members of that international organization, which are Parties to this Treaty.	on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. States members of any such organization which are States Parties to this Agreement shall take all appropriate steps to ensure that the organization makes a declaration in accordance with the foregoing.	shall be borne by the international organization and by the States participating in such organization.	
<b>Responsibility</b>	Art VI <b>States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty.</b> The activities of non-governmental entities in outer space, including the moon and	Art 14 <b>1. States Parties to this Agreement shall bear international responsibility for national activities on the moon, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in this Agreement.</b> States Parties shall ensure that <b>non-governmental entities under their jurisdiction shall engage in</b>	Art 5 The international framework should provide that: a) <b>States shall bear international responsibility for national space resource activities, whether such activities are carried out by governmental agencies or non-governmental entities,</b> and for ensuring that such activities are carried out in conformity with the international framework  c) When space resource activities are carried out by an international organization,	Sec 12 NIL

	BINDING		NON-BINDING	
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	<p>other celestial bodies, shall <b>require authorization and continuing supervision by the appropriate State Party to the Treaty.</b> When activities are carried on in outer space, including the moon and other celestial bodies, by an international organization, <b>responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization.</b></p>	<p><b>activities on the moon only under the authority and continuing supervision of the appropriate State Party.</b></p>	<p>responsibility for compliance with the international framework shall be borne by the <b>international organization and by the States participating in such organization</b></p>	
<b>Jurisdiction and control</b>	<p>Art VIII A State Party on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body. Ownership of objects launched into outer space, including objects landed or constructed on a celestial body, and of their component parts, is not affected by their presence in outer space or on a</p>	<p>Art 12 1. State Parties shall retain jurisdiction and control over their personnel, space vehicles, equipment, facilities, stations and installations on the moon. The ownership of space vehicles, equipment, facilities, stations and installations shall not be affected by their presence on the moon.</p>	<p>Art 6 The international framework should provide that States have jurisdiction and control over any space-made products* used in the space resource activities for which they are responsible.</p> <p>[*Art 2.5 'space-made product' is 'a product made in outer space wholly or partially from space resources.]</p>	NIL

	BINDING		NON-BINDING	
Theme	Outer Space Treaty	Moon Agreement	Hague Building Blocks	Artemis Accords
	celestial body or by their return to the Earth. Such objects or component parts found beyond the limits of the State Party to the Treaty on whose registry they are carried shall be returned to that State Party, which shall, upon request, furnish identifying data prior to their return.			
<b>Informing activities</b>	<p>Art XI In order to promote international co-operation in the peaceful <b>exploration and use of outer space</b>, States Parties to the Treaty <b>conducting activities</b> in outer space, including the moon and other celestial bodies, <b>agree to inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities.</b> On receiving the said information, the Secretary-General of the United Nations should be prepared to disseminate it immediately and effectively.</p> <p>Art V</p>	<p>Art 5 1. States Parties shall inform the <b>Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of their activities concerned with the exploration and use of the moon.</b> Information on the time, purposes, locations, orbital parameters and duration shall be given in respect of each mission to the moon as soon as possible after launching, while information on the results of each mission, including scientific results, shall be furnished upon completion of the mission. In the case of a mission lasting more than sixty days, information on conduct of the mission, including any scientific results, shall be</p>	<p>Art 14 The international framework should provide that States and international organizations shall: a) <b>Register priority rights of an operator</b> to search and/or recover space resources in accordance with the international framework; b) <b>Give advance notification of space resource activities</b>, including any area-based safety measure associated with them, for which they are responsible through an international database; c) <b>Register space objects</b> in accordance with the REG, 6 United Nations General Assembly Resolution 1721 B (XVI), 7 or Article XI OST, taking into account United Nations General Assembly Resolution 62/101; 8</p>	<p>Sec 11 (d) The Signatories should promptly notify each other as well as the Secretary-General of the United Nations of the <b>establishment, alteration, or end of any safety zone</b>, consistent with Article XI of the Outer Space Treaty.</p>

	BINDING		NON-BINDING	
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	<p>States Parties to the Treaty shall <b>immediately inform the other States Parties to the Treaty or the Secretary-General of the United Nations of any phenomena they discover in outer space, including the moon and other celestial bodies, which could constitute a danger to the life or health of astronauts.</b></p>	<p>given periodically, at thirty-day intervals. For missions lasting more than six months, only significant additions to such information need be reported thereafter.</p> <p>2. If a State Party becomes aware that another State Party plans to operate simultaneously in the same area of or in the same orbit around or trajectory to or around the moon, <b>it shall promptly inform the other State of the timing of and plans for its own operations.</b></p> <p>3. In carrying out activities under this Agreement, States Parties shall promptly inform the Secretary-General, as well as the public and the international scientific community, of <b>any phenomena they discover in outer space, including the moon, which could endanger human life or health, as well as of any indication of organic life.</b></p> <p>Art 9 1. States Parties may establish manned and unmanned stations</p>	<p>d) <b>Notify frequency assignments</b> for recording in the Master International Frequency Register in accordance with the Radio Regulations of the International Telecommunication Union;</p> <p>e) <b>Provide, taking into account Article XI OST and the legitimate interests of operators, information and best practices on the prior authorization and continuing supervision of space resource activities for which they are responsible through an international database,</b> including:</p> <p>i. The purposes, locations, orbital parameters, and duration of space resource activities; ii. The nature, conduct, and locations of space resource activities and associated logistic activities, for example deployment of stations, installations, equipment and vehicles; iii. The results of space resource activities; iv. Any phenomena discovered in outer space which could endanger terrestrial life or health, as well as of any indication of extraterrestrial life; v. Any harmful impacts resulting from</p>	



	BINDING		NON-BINDING	
Theme	Outer Space Treaty	Moon Agreement	Hague Building Blocks	Artemis Accords
		<p>on the moon. A State Party establishing a station shall use only that area which is required for the needs of the station and shall immediately inform the Secretary-General of the United Nations of the location and purposes of that station. Subsequently, at annual intervals that State shall likewise inform the Secretary-General whether the station continues in use and whether its purposes have changed.</p>	<p>space resource activities for which they are responsible and the measures planned or implemented to redress such impacts;</p> <p>f) <b>Notify the termination of space resource activities</b> for which they are responsible through an international database together with a statement on the condition of the area where the space resource activity was carried out, including the presence of any space objects or space-made products, or parts thereof.</p>	
<b>Stations on the moon</b>	<p>Art XII All stations, installations, equipment and space vehicles on the moon and other celestial bodies <b>shall be open to representatives of other States Parties to the Treaty on a basis of reciprocity.</b> Such representatives shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal</p>	<p>Art 9 1. States Parties <b>may establish manned and unmanned stations on the moon.</b> A State Party establishing a station shall use only that area which is required for the needs of the station and shall immediately inform the Secretary-General of the United Nations of the location and purposes of that station. Subsequently, at annual intervals that State shall likewise inform the Secretary-General whether the station continues in use and</p>		NIL

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	operations in the facility to be visited.	whether its purposes have changed. 2. Stations shall be installed in such a manner that they do not impede the free access to all areas of the moon of personnel, vehicles and equipment of other States Parties conducting activities on the moon in accordance with the provisions of this Agreement or of <a href="#">article I</a> 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.		
<b>Safety zones</b>	NIL	NIL	Art 11 11.3 Taking into account the principle of non-appropriation under Article II OST, the international framework should permit States and international organizations responsible for space resource activities <b>to establish a safety zone, or other area-based safety measure, around an area identified for a space resource activity as necessary to assure safety and to avoid any harmful interference with that space</b>	See generally Sec 11.6 -11.10, which are all relevant to this theme.  Sec 11.11 The Signatories commit to <b>use safety zones, which will be expected to change, evolve, or end based on the status of the specific activity, in a manner that encourages scientific discovery and technology demonstration</b> , as well as the safe and efficient extraction and utilization of space resources in

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			<p><b>resource activity.</b> Such safety measure shall not impede the free access, in accordance with international law, to any area of outer space of personnel, vehicles and equipment of another operator. In accordance with the area-based safety measure, a State or international organization may restrict access for a limited period of time, provided that timely public notice has been given setting out the reasons for such restriction.</p> <p>11.4 The international framework should provide that appropriate international consultations are undertaken in case of possible overlap of safety zones or conflicts with the freedom of access recognized by international law.</p>	<p>support of sustainable space exploration and other operations. The Signatories commit to respect the principle of free access to all areas of celestial bodies and all other provisions of the Outer Space Treaty in their use of safety zones. The Signatories further commit to adjust their usage of safety zones over time based on mutual experiences and consultations with each other and the international community.</p>
<b>Deconfliction</b>	<p>Art IX In the exploration and use of outer space... States Parties... shall conduct all their activities in outer space... with due regard to the corresponding interests of all other States Parties to the Treaty</p>	<p>Art 8 3. Activities of States Parties in accordance with paragraphs 1 and 2 of this article shall not interfere with the activities of other States Parties on the moon. Where such interference may occur, the States Parties</p>	<p>Art 4(3)(c) The international framework should provide that: ... Appropriate international consultations shall be undertaken in accordance with Article IX OST if there is a reason to believe that any potentially</p>	<p>See Sec 11 generally, including provisions on <b>due regard</b>, the avoidance of <b>harmful interference</b>, and the holding of <b>consultations</b>, the sharing of <b>information, best practices</b>, and the designation of <b>safety zones</b>.</p>

	BINDING		NON-BINDING	
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		concerned shall undertake consultations in accordance with article 15, paragraphs 2 and 3, of this Agreement.	<p>harmful interference may be caused;</p> <p>Art 9 The international framework should provide that States and international organizations responsible for space resource activities shall give due regard to the corresponding interests of all countries and humankind.</p> <p>Art 11 generally providing for the avoidance of <b>harmful interference, appropriate international consultations, and safety zones.</b></p> <p>Art 19 The international framework should encourage recourse by States, international organizations and operators to the resolution of disputes through adjudicatory, non-adjudicatory or hybrid mechanisms, <b>for example by developing procedures for consultation</b> or promoting the use of the 2011 Permanent Court of Arbitration Optional Rules for</p>	

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			Arbitration of Disputes Relating to Outer Space Activities.	
<b>Extraction and utilisation of space resources</b>	<p>In respect of sovereignty over a celestial body or area of a celestial body:</p> <p>Art II Outer space, including the moon and other celestial bodies, <b>is not subject to national appropriation by claim of sovereignty</b>, by means of use or occupation, or by any other means.</p> <p>In respect of freedom of exploration and use:</p> <p>Art I <b>Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States</b> 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.</p>	<p>Art 11 <b>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</b>, international intergovernmental or non- governmental organization, national organization 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. ...</p> <p>5. States Parties to this Agreement hereby undertake to <b>establish an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the moon as such exploitation is about to become</b></p>	<p>Art 8.1 The international framework should ensure that resource rights over raw mineral and volatile materials extracted from space resources, as well as products derived therefrom, <b>can lawfully be acquired, and provide for the mutual recognition between States of such resource rights.</b></p> <p>Note: Sec 2.2 provides a definition for ‘utilization of space resources’ – the recovery of space resources and the extraction of raw mineral or volatile materials therefrom.</p>	<p>Sec 10.2 The Signatories emphasize that the <b>extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities.</b> The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty, and that contracts and other legal instruments relating to space resources should be consistent with that Treaty.</p>

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		<p><b>feasible.</b> This provision shall be implemented in accordance with article 18 of this Agreement.</p> <p>See also Art 11(7).</p>		
<b>Interoperability</b>	NIL	NIL	<p>Art 11.2 The international framework should encourage the development of: ... c) Technical standards for equipment, operational procedures, and processes applied in space resource activities (standardization).</p>	<p>Sec 10 The Signatories recognize that the development of interoperable and common exploration infrastructure and standards, including but not limited to fuel storage and delivery systems, landing structures, communications systems, and power systems, will enhance space-based exploration, scientific discovery, and commercial utilization. The Signatories commit to use reasonable efforts to utilize current interoperability standards for space-based infrastructure, to establish such standards when current standards do not exist or are inadequate, and to follow such standards.</p>
<b>Environmental protection</b>	<p>Art IX ...States Parties to the Treaty shall pursue studies of outer space, including the moon and other celestial bodies, and</p>	<p>Art 7 1. In exploring and using the moon, States Parties shall <b>take measures to prevent the disruption of the existing</b></p>	<p>Art 10: Taking into account the current state of technology, the international framework should provide that States and</p>	NIL

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	<p>conduct exploration of them so as to avoid their harmful contamination and also adverse changes in the environment of the Earth resulting from the introduction of extraterrestrial matter and, where necessary, shall adopt appropriate measures for this purpose....</p>	<p><b>balance of its environment,</b> whether by introducing adverse changes in that environment, by its harmful contamination through the introduction of extra-environmental matter or otherwise. States Parties shall also take measures to avoid harmfully affecting the environment of the earth through the introduction of extraterrestrial matter or otherwise.</p> <p>2. States Parties shall inform the Secretary-General of the United Nations of the measures being adopted by them in accordance with paragraph 1 of this article and shall also, to the maximum extent feasible, notify him in advance of all placements by them of radio-active materials on the moon and of the purposes of such placements.</p> <p>3. States Parties shall report to other States Parties and to the Secretary-General concerning areas of the moon having special scientific interest in order that, without prejudice to the rights of other States Parties, consideration may be given to</p>	<p>international organizations responsible for space resource activities shall adopt appropriate measures with the aim of avoiding and mitigating potentially harmful impacts, including:</p> <ul style="list-style-type: none"> <li>a) Risks to the safety of persons, the environment or property;</li> <li>b) Damage to persons, the environment or property;</li> <li>c) Adverse changes in the environment of the Earth, taking into account internationally agreed planetary protection policies;</li> <li>d) Harmful contamination of celestial bodies, taking into account internationally agreed planetary protection policies;</li> <li>e) Harmful contamination of outer space;</li> <li>f) Harmful effects of the creation of space debris;</li> <li>...</li> <li>h) Changes to designated and internationally endorsed outer space natural or cultural heritage sites);</li> </ul>	

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		the designation of such areas as international scientific preserves for which special protective arrangements are to be agreed upon in consultation with the competent bodies of the United Nations.	(i) Adverse changes to designated and internationally endorsed outer space sites of scientific interest.  See also Art 18(b)(iv) below	
<b>Sustainability</b>	NIL	NIL	Art 4 2. The international framework should be designed to: ... (c) Contribute to sustainable development; ... (f) Promote the sustainable, rational, efficient and economic use of space resources; (g) Promote the use of sustainable technology; ...	Sec 1 The purpose of these Accords is to establish a common vision via a practical set of principles, guidelines, and best practices to enhance the governance of the civil exploration and use of outer space with the intention of advancing the Artemis Program. Adherence to a practical set of principles, guidelines, and best practices in carrying out activities in outer space is intended to increase the safety of operations, reduce uncertainty, and promote the sustainable and beneficial use of space for all humankind. The Accords represent a political commitment to the principles described herein, many of which provide for operational implementation of important obligations contained in the



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				<p>Outer Space Treaty and other instruments.</p> <p>Sec 10.1 The Signatories note that the utilization of space resources can benefit humankind by providing critical support for safe and sustainable operations.</p> <p>Sec 10.2 The Signatories emphasize that the extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities. The Signatories affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty, and that contracts and other legal instruments relating to space resources should be consistent with that Treaty.</p> <p>Sec 11.2</p>

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				<p>The Signatories affirm that the exploration and use of outer space should be conducted with due consideration to the United Nations Guidelines for the Long-term Sustainability of Outer Space Activities adopted by the COPUOS in 2019, with appropriate changes to reflect the nature of operations beyond low-Earth orbit</p> <p>Sec 11.11 The Signatories commit to use safety zones, which will be expected to change, evolve, or end based on the status of the specific activity, in a manner that encourages scientific discovery and technology demonstration, as well as the safe and efficient extraction and utilization of space resources in support of sustainable space exploration and other operations. The Signatories commit to respect the principle of free access to all areas of celestial bodies and all other provisions of the Outer Space Treaty in their use of safety zones. The Signatories further commit to adjust their</p>

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				usage of safety zones over time based on mutual experiences and consultations with each other and the international community.
<b>Scientific investigation</b>	<p>Art I There shall be <b>freedom of scientific investigation in outer space</b>, including the moon and other celestial bodies, and States shall facilitate and encourage international co-operation in such investigation.</p>	<p>Art 6 1. There shall be <b>freedom of scientific investigation</b> on the moon by all States Parties without discrimination of any kind, on the basis of equality and in accordance with international law.</p> <p>2. In carrying out scientific investigations and in furtherance of the provisions of this Agreement, the States Parties shall have the right to collect on and remove from the moon samples of its mineral and other substances. Such samples shall remain at the disposal of those States Parties which caused them to be collected and may be used by them for scientific purposes. States Parties shall have regard to the desirability of making a portion of such samples available to other interested States Parties and the international scientific community for scientific</p>	<p>Art 4(2)(j) The international framework should be designed so as to: ...Take into particular account the needs of science.</p> <p>Art 18 (b)(iv) The international framework should provide for: The <b>listing</b> of designated and internationally endorsed outer space natural and cultural heritage sites, and <b>sites of scientific interest</b></p>	NIL- but see Section 8 release of scientific data

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		<p>investigation. States Parties may in the course of scientific investigations also use mineral and other substances of the moon in quantities appropriate for the support of their missions.</p> <p>3. States Parties agree on the desirability of exchanging scientific and other personnel on expeditions to or installations on the moon to the greatest extent feasible and practicable.</p>		