

**AALCO/62/BANGKOK/2024/SD/S20**

*For Official Use Only*

**ASIAN-AFRICAN LEGAL CONSULTATIVE ORGANIZATION**



---

**LEGAL ISSUES IN OUTER SPACE**

---

**The AALCO Secretariat  
29-C, Rizal Marg  
Diplomatic Enclave, Chanakyapuri  
New Delhi – 110 021  
(INDIA)**

# **LEGAL ISSUES IN OUTER SPACE**

## **CONTENTS**

<b>I.</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>A.</b>	<b>International Legal Framework Governing Space Activities</b>	<b>2</b>
<b>B.</b>	<b>Deliberations at the Sixty-First Annual Session of AALCO (Bali, the Republic of Indonesia, 16-20 October 2023)</b>	<b>3</b>
<b>C.</b>	<b>Topics for Focused Deliberation at the Sixty-Second Annual Session</b>	<b>5</b>
<b>II.</b>	<b>PEACEFUL USES AND EXPLORATION OF OUTER SPACE</b>	<b>6</b>
<b>A.</b>	<b>Partial Demilitarization of Outer Space</b>	<b>7</b>
<b>B.</b>	<b>Multilateral Demilitarization Efforts</b>	<b>8</b>
	1. The Draft Treaty on Prevention of the Placement of Weapons in Outer Space (PPWT)	<b>9</b>
	2. The European Union's Code of Conduct for Outer Space Activities	<b>10</b>
	3. UN Group of Governmental Experts (UNGGE) and the United Kingdom's Proposal	<b>11</b>
	4. The UNSC Resolution on Space Security and Later Developments	<b>13</b>
<b>III.</b>	<b>SPACE RESOURCE UTILIZATION</b>	<b>14</b>
<b>A.</b>	<b>International Space Law Applicable to Space Resource Utilization</b>	<b>15</b>
<b>B.</b>	<b>The Debate on Article II of the Outer Space Treaty</b>	<b>16</b>
<b>C.</b>	<b>National Legislation and Bilateral Arrangements</b>	<b>17</b>
<b>D.</b>	<b>The Establishment of the Working Group on Legal Aspects of Space Resource Activities</b>	<b>18</b>

<b>IV.</b>	<b>CAPACITY-BUILDING IN SPACE LAW</b>	<b>20</b>
<b>A.</b>	<b>Efforts of the United Nations</b>	<b>20</b>
<b>B.</b>	<b>Regional Organisations in Asia and Africa and Capacity Building in Space Law</b>	<b>21</b>
1.	Asia-Pacific Space Cooperation Organization (APSCO)	22
2.	Arab Space Cooperation Group (ASCG)	22
3.	African Union Space Working Group	23
<b>V.</b>	<b>COMMENTS AND OBSERVATIONS BY THE AALCO SECRETARIAT</b>	<b>24</b>
	<b>ANNEX: Draft Resolution prepared by the Secretariat</b>	<b>26</b>

## **I. INTRODUCTION**

### **A. International Legal Framework Governing Space Activities**

1. The topic “Legal Issues in Outer Space” was incorporated into the agenda of the Asian-African Legal Consultative Organization (AALCO) following a proposal by the Republic of India during its Sixty-first Annual Session, which took place in Bali, Republic of Indonesia, from the 16<sup>th</sup> to the 20<sup>th</sup> of October 2023. This decision reflects the growing importance and urgency of addressing the complex legal challenges that have emerged as a result of the rapid advancement and proliferation of space activities by various states and non-state actors.

2. The exploration and use of outer space is governed by a framework of international treaties and principles developed under the auspices of the United Nations. The five key treaties that form the foundation of space law are the Outer Space Treaty (1967)<sup>1</sup>, the Rescue Agreement (1968)<sup>2</sup>, the Liability Convention (1972)<sup>3</sup>, the Registration Convention (1975)<sup>4</sup>, and the Moon Agreement (1979).<sup>5</sup> Among these, the Outer Space Treaty (OST) is considered the most fundamental and influential, establishing the basic legal principles for space activities.

3. The Outer Space Treaty sets forth several key principles that guide the conduct of nations in their space endeavours. Firstly, it affirms that outer space is the province of all mankind and shall be used for the benefit of all countries, regardless of their degree of economic or scientific development. This principle emphasizes the importance of international cooperation and the equitable sharing of the benefits derived from space exploration. Secondly, the treaty establishes that outer space is free for exploration and use by all countries, promoting equal access and opportunities for all nations to engage in space activities. However, it also stipulates that outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means. This provision aims to prevent any single nation from asserting

---

<sup>1</sup> Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 (“OST”)

<sup>2</sup> Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119.

<sup>3</sup> Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187

<sup>4</sup> Convention on Registration of Objects Launched into Outer Space, Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15

<sup>5</sup> Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, Dec. 18, 1979, 18 I.L.M. 1434, 1363 U.N.T.S. 3. (“Moon Agreement”)

dominance or exclusive control over outer space and its resources. Furthermore, the Outer Space Treaty requires states to avoid harmful contamination of space and celestial bodies, recognizing the need to preserve the pristine nature of these environments for scientific study and future generations. It also accords a special status to astronauts, regarding them as the envoys of mankind and requiring states to provide them with all possible assistance in the event of accident, distress, or emergency landing.

4. Importantly, the treaty holds States responsible for national space activities, whether carried out by governmental or non-governmental entities. This provision ensures that States exercise proper oversight and control over the space activities conducted by their nationals, and bear international responsibility for any damages or violations of international law resulting from such activities. Despite the existence of this legal framework, the rapid growth and diversification of space activities in recent years have given rise to unparalleled challenges concerning safety, security, environmental protection, and a host of pressing legal issues. The increasing participation of private actors, the development of new technologies, and the potential for space militarization have exposed gaps and ambiguities in the existing legal regime.

5. These developments underscore the necessity for collaborative dialogue among States to establish forward-looking governance structures for outer space that adhere to principles of peace and inclusivity. AALCO, as a forum for legal consultation and cooperation among Asian and African States, is well-positioned to contribute to this dialogue and to promote the development of a comprehensive and adaptive legal framework for outer space activities. By incorporating the topic of “Legal Issues in Outer Space” into its agenda, AALCO recognizes the critical importance of addressing these challenges and the need for a concerted effort by the international community to ensure that the exploration and use of outer space continue to benefit all of humanity while upholding the fundamental principles enshrined in the Outer Space Treaty and other relevant international instruments.

**B. Deliberations at the Sixty-First Annual Session of AALCO (Bali, the Republic of Indonesia, 16-20 October 2023)**

6. The topic “Legal Issues in Outer Space” generated significant interest and active participation from the Member States of AALCO. H.E. Dr. Kamalinne Pinitpuvadol, the Secretary-

General of AALCO, while introducing this new topic, highlighted the increasing significance and complexity of outer space activities. He emphasized that with the expansion of space ventures by various States, there arise unparalleled challenges related to safety, security, environmental protection, and the pressing legal issues accompanying them. Calling upon the AALCO Member States, he stressed the importance of collaborative dialogue to frame future-centric governance for outer space that upholds peaceful and inclusive principles.

7. **The Republic of India**, the proposer of the topic, expressed its belief that space activities and technologies are essential for rapid economic and social development. As a major space-faring nation, India consistently supports and advocates for the peaceful uses of outer space and is opposed to its weaponization. India is party to the major international treaties related to outer space and voluntarily implements Transparency and Confidence Building Measures (TCBMs). The delegation announced reforms to bring more private participation in space activities and is enacting legislation to regulate non-governmental entities in outer space.

8. **The Islamic Republic of Iran** expressed deep concern about the increasing threat of weaponizing and aggressive use of outer space by certain States. The delegation believes that current legal mechanisms are unable to deal with emerging issues, and new initiatives are subject to conflicts or negligence. Iran maintains that outer space must be used exclusively for peaceful purposes and free from deploying any weapons. The delegation suggested that AALCO can play a key role in conducting research and promoting guidelines for regulating States' activities in outer space.

9. **Malaysia** enacted the Malaysian Space Board Act 2022, which regulates space-related activities, registration of space objects, and prohibits harmful activities. The delegation views the UNCOPUOS space debris management guidelines as a good example of global effort in addressing the issue. Malaysia stresses the importance of space traffic management to guarantee the safety of space operations and acknowledges the need to strengthen international cooperation on sharing space situational awareness information for space debris management.

10. **Japan** recognized the importance of upholding the rule of law in outer space for safety, security, sustainability, and stability. The country has established domestic legislation, including the Basic Space Act (2008), Space Resources Act (2021), and national guidelines for on-orbit servicing (2021). Japan is committed to pursuing space resource exploration in line with international norms and frameworks. The delegation actively promotes the development of national space legislation in the Asia-Pacific region through the National Space Legislation Initiative (NSLI) and capacity-building support. Japan encourages all States to implement the UN's Guidelines for the Long-term Sustainability of Outer Space Activities and the Space Debris Mitigation Guidelines.

11. **The Republic of Indonesia** reaffirmed that outer space should be used and explored entirely for peaceful purposes, benefiting all countries. Indonesia has ratified four UN treaties on outer space and has national legislation governing space activities. The delegation emphasized the importance of protecting the space environment and endorsed initiatives aligned with UNCOPUOS and IADC guidelines to mitigate space debris. Indonesia relies heavily on space technology and is developing small satellites to address societal needs. The delegation also highlighted the importance of inclusivity in international cooperation, considering differing technological levels and increasing the role of developing countries.

12. **The Republic of Korea** emphasized the importance of UN treaties and non-legally binding instruments for peaceful and sustainable space activities. The delegation believes that non-legally binding norms can serve as suitable tools for managing the rapidly evolving space domain. The Republic of Korea adopted Space Debris Mitigation Recommendations in 2020 and hosted an IADC meeting in 2022. The country is planning to develop a launch vehicle for space resource exploration and recognizes the need for international norms. The delegation supports information sharing on space activities and looks forward to exchanging ideas to address new challenges.

13. **The People's Republic of China** actively participates in UNCOPUOS's Legal Subcommittee working group on space resources, advocating for development in conformity with international space law principles. China monitors challenges brought by low-orbit mega-constellations and supports discussions at the UN to ensure sustainable use of orbits and

frequencies. The delegation promotes international cooperation in space science experiments, astronaut training, and the International Lunar Research Station (ILRS) project. China welcomes collaborations with Asian and African countries in joint exploration and is devoted to working collectively for the peaceful utilization of outer space.

14. **The Socialist Republic of Vietnam** highlighted the role of the five founding UN space conventions as the legal framework for international space governance. The delegation underscored that space activities must adhere to the UN Charter and relevant international law. Vietnam supports strengthening the UN's role and specialized committees to promote the peaceful use of outer space. The delegation welcomed the establishment of the Working Group on Legal Aspects of Space Resource Activities under UNCOPUOS and committed to collaborating within the UN framework to address legal issues in outer space.

15. **The Republic of Kenya** recognizes the space economy as critical for technology development, economic growth, international cooperation, and addressing societal needs. Kenya is guided by the Kenya Space Policy 2015, which outlines the country's space ambitions and has enhanced various aspects of the space sector. The delegation notes that the five UN treaties and principles on space-related activities form the primary legal framework for safe, secure, and sustainable space activities. Kenya reaffirms its commitment to meaningful partnerships with the international space community for promoting space science and technology.

### **C. Topics for Focused Deliberation at the Sixty-Second Annual Session**

16. Based on the statements made by Member States during the Sixty-First Annual Session and significant recent developments, the Secretariat suggests the following issues for focused deliberation at the upcoming Sixty-Second Annual Session:

- Peaceful uses and exploration of outer space
- Space resource utilization
- Capacity-building in space law



As the topic “Legal Issues in Outer Space” was recently introduced to AALCO's work programme during the Sixty-First Annual Session in Bali, Indonesia, in October 2023, this brief aims to provide a comprehensive overview of the foundational knowledge and current developments on the above-listed legal issues in outer space, as highlighted by the Member States.

## **II. PEACEFUL USES AND EXPLORATION OF OUTER SPACE**

17. The Outer Space Treaty (OST) of 1967 is the cornerstone of international space law, establishing the fundamental principles for the peaceful use of outer space. One of its key provisions is the demilitarisation of outer space, particularly through Article IV, which explicitly prohibits the placement of nuclear weapons or any other kinds of weapons of mass destruction in orbit around the Earth, on celestial bodies, or in outer space in any other manner.<sup>6</sup> Additionally, the treaty mandates that the Moon and other celestial bodies shall be used exclusively for peaceful purposes, prohibiting the establishment of military bases, installations, and fortifications, as well as the testing of any weapons and the conduct of military manoeuvres on these bodies.<sup>7</sup>

18. Article 3 of the Moon Agreement reiterates these principles by stipulating that the Moon shall be used by all States Parties exclusively for peaceful purposes.<sup>8</sup> It prohibits any threat or use of force or any other hostile act on the Moon, as well as the use of the Moon to commit such acts against the Earth, spacecraft, or personnel.<sup>9</sup> Additionally, it bans the placement of nuclear weapons or any other kinds of weapons of mass destruction in orbit around or on the Moon, and forbids the establishment of military bases, installations, and fortifications on the Moon.<sup>10</sup> In this context, it is important to note that despite being in force and binding on its state parties, the Moon Agreement's effectiveness is limited by the fact that it has not been ratified by any major space-faring States.

19. The 1963 Partial Test Ban Treaty (PTBT) further contributes to space demilitarisation through its Article I, which prohibits nuclear weapon test explosions in the atmosphere, in outer

---

<sup>6</sup> OST, Art. IV

<sup>7</sup> Id.

<sup>8</sup> Moon Agreement, Art. 3.1

<sup>9</sup> Id. Art. 3.2

<sup>10</sup> Id. Art. 3.3 and 3.4

space, and underwater.<sup>11</sup> This provision reinforces the OST's demilitarisation efforts by preventing nuclear tests in outer space, thereby reducing the risk of nuclear proliferation and the militarisation of space.

20. Article III of the OST emphasises that activities in the exploration and use of outer space, including the Moon and other celestial bodies, must be carried out in accordance with international law, including the Charter of the United Nations. Thus, the OST's demilitarization provisions are reinforced by the United Nations Charter, which obligates Member States to refrain from the threat or use of force in their international relations. Article 2(4) of the UN Charter specifically requires all members to refrain from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the purposes of the United Nations.<sup>12</sup> This overarching principle of "peaceful uses" underpins the peaceful use of outer space as envisioned by the OST.

#### **A. Partial Demilitarization of Outer Space**

21. Article IV of the OST encapsulates a nuanced approach to the demilitarization of outer space, reflecting the geopolitical realities of the Cold War era. The provisions of the treaty signify a compromise between the ideal of maintaining outer space as a peaceful domain and the practical necessity of allowing certain military activities. This compromise was essential to secure the agreement of major space-faring States, which were unwilling to forgo all military uses of space.<sup>13</sup>

22. The term "peaceful uses" within the context of the OST has been subject to interpretative debate. Some argue that "peaceful" should mean "non-military," thereby excluding all military activities. However, the prevailing interpretation is that "peaceful" means "non-aggressive," allowing for military uses that are not hostile.<sup>14</sup> This interpretation aligns with the treaty's

---

<sup>11</sup> Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 480 U.N.T.S. 43.

<sup>12</sup> Charter of the United Nations, June 26, 1945, 1 U.N.T.S. XVI, Art. 2 (4)

<sup>13</sup> See generally Beery J, 'Unearthing Global Natures: Outer Space and Scalar Politics' (2016) 55 Political Geography 92

<sup>14</sup> Mosteshar S, 'Space Law and Weapons in Space' (23 May 2019) Oxford Research Encyclopaedia of Planetary Science <<https://oxfordre.com/planetaryscience/view/10.1093/acrefore/9780190647926.001.0001/acrefore-9780190647926-e-74>> accessed 23 July 2024; Jakhu RS, Chen KW *et al*, 'Threats to Peaceful Purposes of Outer Space: Politics and Law' (2020) 18(1) Astropolitics 22.

allowance for the use of military personnel and equipment for scientific research and other peaceful purposes.

23. Article IV specifically prohibits the placement of nuclear weapons or any other kinds of weapons of mass destruction in orbit around the Earth, on celestial bodies, or in outer space in any other manner. However, it does not ban the military use of outer space *per se*.<sup>15</sup> This means that activities such as the deployment of anti-satellite (ASAT) or space-based ballistic missile defence (BMD) systems are not prohibited, provided they do not involve nuclear weapons or weapons of mass destruction. Additionally, the treaty does not prohibit the use of weapons, including those that are nuclear or WMDs, if they do not make an orbit around the Earth, such as Fractional Orbital Bombardment Systems (FOBS).<sup>16</sup>

## **B. Multilateral Demilitarization Efforts**

24. The Conference on Disarmament (CD) and the UN has been actively considering proposals under the agenda item “Prevention of an Arms Race in Outer Space” (PAROS). These proposals have included draft treaties aimed at preventing the placement of weapons in outer space and prohibiting the use of anti-satellite (ASAT) weapons. The CD, established in 1979, is the world’s single multilateral disarmament negotiating forum.<sup>17</sup> While independent from the UN, it has close ties, with the UN Secretary-General appointing the CD Secretary-General. The CD focuses on key issues like nuclear disarmament, the prevention of nuclear war, and, crucially, the prevention of an arms race in outer space. In 1985, the CD established an *ad hoc* committee to identify and examine issues relevant to PAROS. However, the committee was dissolved in 1994 due to opposition from some States, particularly the United States, despite near-unanimous UN General Assembly resolutions supporting PAROS negotiations.<sup>18</sup>

---

<sup>15</sup> Sandeepa Bhat and Kiran Mohan V, ‘Anti Satellite Missile Testing: Challenge to Article IV of the Outer Space Treaty’ (2009) 2(2) NUJS L Rev 92

<sup>16</sup> Goldblat J, ‘Efforts to Control Arms in Outer Space’ (2003) 34(1) Security Dialogue 103 <<https://doi.org/10.1177/09670106030341009>>

<sup>17</sup> ‘Conference on Disarmament – UNODA’ <<https://disarmament.unoda.org/conference-on-disarmament/>> accessed 12 July 2024

<sup>18</sup> ‘Federation of American Scientists: Prevention of an Arms Race in Outer Space’ <[https://programs.fas.org/ssp/nukes/ArmsControl\\_NEW/nonproliferation/NFZ/NP-NFZ-PAROS.html](https://programs.fas.org/ssp/nukes/ArmsControl_NEW/nonproliferation/NFZ/NP-NFZ-PAROS.html)> accessed 14 July 2024

25. Each year, the UN General Assembly First Committee overwhelmingly passes a resolution reaffirming the importance of PAROS, arguing that while the 1967 Outer Space Treaty provides a framework, it does not guarantee prevention of an arms race in space.<sup>19</sup> The resolution calls for states, especially those with major space capabilities, to refrain from actions contrary to PAROS and to actively contribute to its objective. The twenty-first century witnessed several state and UN-led efforts to prevent another arms race in outer space:

## **1. The Draft Treaty on Prevention of the Placement of Weapons in Outer Space (PPWT)**

26. Russia and China have been strong proponents of PAROS within the CD. In 2008, they submitted a draft “Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects” (PPWT) to the CD.<sup>20</sup> This draft treaty aimed to prevent an arms race in outer space by prohibiting the placement of any weapons in outer space and banning the threat or use of force against outer space objects. The PPWT was a significant step towards establishing a legally binding framework to ensure the peaceful use of outer space. The main features of the PPWT included commitments by signatory States not to place any weapons in outer space and not to resort to the threat or use of force against outer space objects. The treaty also called for transparency and confidence-building measures to be implemented on a voluntary basis. However, the draft treaty faced significant objections, particularly from the United States.

27. One of the primary criticisms of the PPWT was its omission of ground-based anti-satellite weapons from its purview. The United States argued that this omission left a significant loophole, as it did not address the development, testing, or stockpiling of ground-based weapons that could be rapidly deployed into space.<sup>21</sup> Additionally, the draft treaty lacked a robust verification mechanism to ensure compliance, which further undermined its effectiveness. The absence of a verification regime made it difficult to monitor and enforce the treaty's provisions, leading to concerns about its practical implementation.<sup>22</sup>

---

<sup>19</sup> See ‘The CD and PAROS: A Short History’ (2011), UNIDIR, <<https://unidir.org/files/publication/pdfs/the-conference-on-disarmament-and-the-prevention-of-an-arms-race-in-outer-space-370.pdf>>

<sup>20</sup> Draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (2008) <[https://www.fmprc.gov.cn/mfa\\_eng/wjb\\_663304/zzjg\\_663340/jks\\_665232/kjfywj\\_665252/200802/t20080212\\_599554.html](https://www.fmprc.gov.cn/mfa_eng/wjb_663304/zzjg_663340/jks_665232/kjfywj_665252/200802/t20080212_599554.html)>

<sup>21</sup> See Su J, ‘The “peaceful purposes” principle in outer space and the Russia–China PPWT Proposal’ (2010) 26(2) Space Policy 81

<sup>22</sup> See Su J, ‘Towards an effective and adequately verifiable PPWT’ (2010) 26(3) Space Policy 152

28. Despite these criticisms, China and Russia revised the PPWT in 2014 and resubmitted it to the CD. However, the revised draft did not address the fundamental issues raised by the United States and other countries. The lack of a comprehensive verification mechanism and the exclusion of ground-based ASAT weapons remained significant points of contention. As a result, the PPWT failed to gain sufficient support within the CD, and the proposal did not advance to the negotiation stage.<sup>23</sup>

## **2. The European Union’s Code of Conduct for Outer Space Activities**

29. Against the backdrop of polarized positions between China-Russia and the United States regarding space demilitarisation, the European Union (EU) initiated its own approach to promote the safety, security, and sustainability of space activities. In 2008, the EU introduced the “Code of Conduct for Outer Space Activities” (CoC), which was envisioned as a set of Transparency and Confidence-Building Measures (TCBMs) to strengthen existing regulations and promote responsible behaviour in outer space.<sup>24</sup>

30. The initial draft of the CoC aimed to address various concerns related to space security, including the prevention of accidents, collisions, and the creation of space debris. It emphasised the need for cooperation and information exchange among states to enhance the safety and sustainability of space activities. However, the draft faced criticism for being developed without the involvement of key space-faring nations, particularly the BRICS countries (Brazil, Russia, India, China, and South Africa), which perceived it as an exclusive EU project.<sup>25</sup>

31. To address these concerns, the EU undertook a broader consultation process in 2014 and revised the draft, renaming it the “International Code of Conduct for Outer Space Activities.”<sup>26</sup> This revised draft aimed to be more inclusive and sought to engage a wider range of stakeholders in the development process. Despite these efforts, significant disagreements persisted regarding

---

<sup>23</sup> ‘The Space Review: The 2014 PPWT: A New Draft but with the Same and Different Problems’ <<https://www.thespacereview.com/article/2575/1>> accessed 23 July 2024

<sup>24</sup> ‘The Draft International Code of Conduct: Fact Sheet’ (2014) <[https://swfound.org/media/166384/swf\\_draft\\_international\\_code\\_of\\_conduct\\_for\\_outer\\_space\\_activities\\_fact\\_sheet\\_february\\_2014.pdf](https://swfound.org/media/166384/swf_draft_international_code_of_conduct_for_outer_space_activities_fact_sheet_february_2014.pdf)> accessed 14 July 2024

<sup>25</sup> Su J and Lixin Z, ‘The European Union draft Code of Conduct for outer space activities: An appraisal’ (2014) 30(1) Space Policy 34

<sup>26</sup> ‘Draft International Code of Conduct for Outer Space Activities’ (2014) <[https://www.eeas.europa.eu/sites/default/files/space\\_code\\_conduct\\_draft\\_vers\\_31-march-2014\\_en.pdf](https://www.eeas.europa.eu/sites/default/files/space_code_conduct_draft_vers_31-march-2014_en.pdf)>

the form and content of the new norms. One of the main points of contention was the legally binding nature of the agreement. China and Russia, proponents of the PPWT, favoured a binding treaty, while the EU's CoC was a politically binding document, not a legally binding treaty. This fundamental difference in approach created friction and hindered consensus. Additionally, there were disagreements on the choice of forum for negotiation. While the EU Member States advocated for an *ad hoc* process to ensure broader participation, other states preferred an UN-based approach.

### 3. UN Group of Governmental Experts (UNGGE) and the United Kingdom's Proposal

32. In addition to state-led initiatives like the PPWT and the EU's Code of Conduct, the United Nations has played a pivotal role in fostering multilateral efforts to prevent the weaponisation of outer space. One significant initiative was the establishment of the UN Group of Governmental Experts (UNGGE) on Transparency and Confidence-Building Measures (TCBMs) in Outer Space Activities. In 2011, the UN General Assembly (UNGA) established the UNGGE to explore and recommend practical measures to enhance transparency and build confidence among states regarding their space activities. The UNGGE convened in 2012 and 2013, culminating in a final report submitted in 2013.<sup>27</sup> This report outlined several recommendations aimed at promoting strategic stability in outer space. Key recommendations included:

**Information Sharing:** States were encouraged to share information on their national space policies and activities to enhance mutual understanding and reduce the risk of misunderstandings and miscalculations.

**Risk Reduction Notifications:** The report recommended that states provide advance notifications of space launches and manoeuvres to prevent potential collisions and other incidents.

**Voluntary Visits:** The UNGGE suggested that states allow voluntary visits to their launch sites and other space-related facilities to build trust and transparency.

---

<sup>27</sup> 'Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities: Note' (2013) UN Doc A/68/189 <<http://digitallibrary.un.org/record/755155>> accessed 14 July 2024

33. Despite these recommendations, the implementation of the UNGGE's proposals has been minimal, limiting their impact on creating norms for space security. The lack of a binding framework and the voluntary nature of the measures have contributed to the slow progress in adopting these TCBMs.

34. In 2017, the UN Disarmament Commission (UNDC) explored ways to implement the UNGGE's recommendations practically. However, the UNDC faced challenges in convening meetings and making substantial progress, reflecting the broader difficulties in achieving consensus on space security issues.<sup>28</sup>

35. Another significant development was the United Kingdom's proposal to the UNGA in 2020. The UK submitted a working paper titled "Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours."<sup>29</sup> This proposal aimed to initiate a dialogue among UN Member States on defining responsible and irresponsible behaviours in space. The UK's initiative sought to complement existing legal frameworks and ongoing discussions by promoting non-legally binding norms to enhance space security. The UNGA adopted resolution 75/36 in December 2020, based on the UK's proposal. This resolution invited Member States to share their views on responsible behaviours in space and provide ideas on developing and implementing norms, rules, and principles to reduce space threats.<sup>30</sup> The resolution led to establishing an Open-Ended Working Group (OEWG) in 2021 to further discuss and develop these norms and principles.<sup>31</sup>

36. The OEWG is a significant step forward in addressing space security through multilateral dialogue. It provides a platform for states to engage in discussions on responsible behaviour and transparency measures, aiming to reduce the risk of conflict and enhance the sustainability of space activities. However, the success of the OEWG will depend on the willingness of states to cooperate and make meaningful commitments to responsible space behaviour.

---

<sup>28</sup> See UNGA Res 72/250 (12 January 2018) UN Doc A/RES/72/250

<sup>29</sup> See 'Rules and principles of responsible behaviours' (10 May 2022) UN Doc A/AC.294/2022/WP.11 <<https://documents.un.org/access.nsf/get?DS=A%2FAC.294%2F2022%2FWP.11&Lang=E>> accessed 14 July 2024

<sup>30</sup> 'Reducing space threats through norms, rules and principles of responsible behaviours: UNGA (2020) UN Doc A/RES/75/36 <<http://digitallibrary.un.org/record/3895440>> accessed 14 July 2024

<sup>31</sup> See Almudena Azcárate Ortega and Sarah Erickson, 'OEWG on Reducing Space Threats: Recap Report' (2024) UNIDIR <<https://unidir.org/publication/oewg-on-reducing-space-threats-recap-report/>> accessed 14 July 2024

#### 4. The UNSC Resolution on Space Security and Later Developments

37. On April 24, 2024, Russia exercised its veto power against a United Nations Security Council (UNSC) resolution proposed by the United States and Japan.<sup>32</sup> This resolution aimed to reaffirm the Outer Space Treaty's prohibition on placing nuclear weapons or other weapons of mass destruction in orbit. The proposal garnered support from 13 UNSC members, while the People's Republic of China abstained. The impetus for the US-Japan resolution was a US intelligence report from February 2024, which suggested that Russia was developing a space-based nuclear anti-satellite weapon.

38. Prior to the veto, Russia and China had proposed an amendment to the draft resolution, seeking to broaden its scope beyond weapons of mass destruction.<sup>33</sup> Their amendment aimed to prohibit the placement of any weapons in outer space and urged all countries, particularly those with significant space capabilities, "to prevent for all time the placement of weapons in outer space, and the threat or use of force in outer space." However, this amendment failed to pass, receiving 7 votes in favour, 7 against, and 1 abstention (Switzerland), falling short of the required 9 affirmative votes.

39. Russia and China have long advocated for a comprehensive treaty banning all weapons in space, arguing that the US-Japan approach was too narrow. However, the U.S. and many Western states opposed this broader scope, citing verification challenges. After their amendment's failure, Russia vetoed the original US-Japan resolution, arguing it did not go far enough, while China abstained from the final vote. In a subsequent move, Russia introduced a draft resolution on May 20, 2024, at the UNSC, aiming to prohibit any weapons in outer space and prevent the threat or use of force.<sup>34</sup> This resolution also failed to secure adoption due to an evenly split vote: 7 in favour, 7 against, and 1 abstention. The U.S. criticized Russia's proposal as hastily drafted and disingenuous, accusing Russia of attempting to deflect attention from its own alleged development of a nuclear-armed satellite. These developments highlight the significant challenges in reaching a consensus on preventing an arms race in outer space, with the UNSC's permanent members deeply divided on the issue.

---

<sup>32</sup> UNSC, 'Draft Resolution' (24 April 2024) UN Doc S/2024/302

<sup>33</sup> China and Russian Federation, 'Amendment to the Draft Resolution Contained in Document S/2024/302' (24 April 2024) UN Doc S/2024/323

<sup>34</sup> UNSC, 'Draft Resolution' (20 May 2024) UN Doc S/2024/383



### III. SPACE RESOURCE UTILIZATION AND INTERNATIONAL LAW

40. Space mining, once a concept relegated to science fiction, is rapidly becoming a tangible reality. The potential for extracting valuable resources from asteroids, the Moon, and other celestial bodies has garnered significant interest from both governmental and private entities. The global space mining market was valued at approximately USD 1.71 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 16.1%, reaching USD 7.61 billion by 2033.<sup>35</sup> This growth is driven by advancements in space technology, increased investments, and the potential for substantial economic returns.

41. Several companies are at the forefront of this burgeoning industry. For instance, AstroForge, a California-based startup, announced two missions in 2023 aimed at laying the foundations for commercial asteroid mining. These missions will test technology and survey target asteroids, with the goal of extracting platinum-group metals (PGMs) such as iridium, osmium, palladium, platinum, rhodium, and ruthenium. These metals are among the rarest on Earth and are crucial for various industrial applications.<sup>36</sup> The feasibility of space mining is further supported by the decreasing costs of space missions. Technological advancements, such as reusable launch vehicles and autonomous mining systems, are making space mining more economically viable. For example, the cost of launching and operating space missions has significantly reduced, enabling companies to focus on developing the necessary mining technologies.<sup>37</sup>

42. The timeline for commercial space mining is becoming clearer as technological and financial barriers are progressively overcome. Experts predict that small-scale sample recovery missions could be feasible within the next five years, with full-scale commercial mining operations

---

<sup>35</sup> 'Fact.MR – Space Mining Market Analysis by Spacecraft Design, Launch, Operation for Water Resources, Metal Resources, Scientific Knowledge, Environment, and Economic Growth from 2023 to 2033' <<https://www.factmr.com/report/space-mining-market>> accessed 16 July 2024

<sup>36</sup> 'Are We Finally on the Cusp of Commercial Asteroid Mining?' (27 February 2023) <[https://skyandtelescope.org/astronomy-news/are-we-finally-on-the-cusp-of-commercial-asteroid-mining/#google\\_vignette](https://skyandtelescope.org/astronomy-news/are-we-finally-on-the-cusp-of-commercial-asteroid-mining/#google_vignette)> accessed 16 July 2024

<sup>37</sup> Chris Lewicki, 'Furthering Asteroid Resource Utilization in the Next Decade through Technology Leadership: A Planetary Science and Astrobiology Decadal Survey 2023-2032 White Paper' (2021) <<https://doi.org/10.48550/arXiv.2103.02435>> accessed 16 July 2024

potentially commencing by 2035.<sup>38</sup> The strategic benefits of space mining, such as reducing terrestrial territorial disputes and providing a new supply of critical minerals also underline the importance of prioritizing these endeavours.

#### **A. International Space Law Applicable to Space Resource Utilization**

43. Given these developments, the exploration and utilization of space resources have become focal points of international space activities. As these activities progress, it is imperative to understand the international legal frameworks that govern them. This section provides a detailed discussion on the international space law applicable to space resource utilization, highlighting the key treaties, principles, and ongoing efforts to address the legal challenges posed by these activities.

44. The OST substantively deals with space resource extraction and utilization. At its core, the OST provides a framework for the exploration and use of outer space, including the Moon and other celestial bodies. Two key provisions of the OST are particularly relevant to space resource utilization.

45. One of the fundamental principles of the OST is the non-appropriation principle, stipulated in Article II. This article prohibits national appropriation of outer space, including the Moon and other celestial bodies, “by any means.”<sup>39</sup> In essence, this principle ensures that no state can claim sovereignty over any part of outer space, arguably maintaining space as a global common. This provision has significant implications for space resource utilization, as it prevents any single State or entity from claiming ownership over resources found in space. The OST also emphasizes the importance of using space for the benefit of all mankind. Article I states that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development.<sup>40</sup> This provision highlights the need for international cooperation and collaboration in space activities, including resource utilization.

---

<sup>38</sup> ‘Digging Space: Miners to Ignite Race for Outer Space Ore’ (*Spglobal.com* 8 January 2024) <<https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/digging-space-miners-to-ignite-race-for-outer-space-ore-78269052>> accessed 16 July 2024

<sup>39</sup> OST, Art. II

<sup>40</sup> *Id.*, Art. 1

46. In addition to the OST, the Moon Agreement provides additional provisions specific to the Moon and other celestial bodies. One of the key aspects of the Moon Agreement is the establishment of an international regime for resource utilization. Article 11 stipulates that the exploitation of the Moon's resources shall be governed by an international regime to be established by the States parties to the agreement.<sup>41</sup> This regime aims to ensure the orderly and safe development of lunar resources and the equitable sharing of benefits derived from these resources. The Moon Agreement also emphasizes the need to protect the environment of the Moon and other celestial bodies. The agreement highlights the importance of avoiding harmful contamination of the Moon and other celestial bodies, as well as adverse changes to the Earth's environment resulting from space activities.<sup>42</sup> These provisions are consistent with the principles of the OST and provide a framework for the responsible and sustainable use of space resources on the Moon and other celestial bodies.

## **B. The Debate on Article II of the Outer Space Treaty**

47. Article II of OST states that “outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.” While this provision was intended to prevent any single State from claiming ownership over parts of outer space, its interpretation and implications have sparked significant debate, particularly in the context of the burgeoning commercial space industry.<sup>43</sup>

48. The historical context in which the OST was drafted is crucial to understanding the intent behind Article II. The treaty was created during the Cold War, a period marked by intense geopolitical rivalry between the United States and the Soviet Union.<sup>44</sup> The primary aim was to prevent the extension of national rivalries into outer space, ensuring that space would remain a domain for peaceful exploration and use by all humanity. Article II was thus intended to prevent any state from claiming sovereignty over celestial bodies, which could lead to conflicts similar to those seen over territorial claims on Earth. However, the ambiguity of Article II regarding the scope of the non-appropriation principle has led to differing interpretations. The treaty explicitly

---

<sup>41</sup> Moon Agreement, Art. 11 (5)

<sup>42</sup> Id. Art. 7 (1)

<sup>43</sup> See Abigail Pershing, ‘Interpreting the Outer Space Treaty’s Non-Appropriation Principle: Customary International Law from 1967 to Today’ (2020) 44 Yale J Intl L 149

<sup>44</sup> See Buono S, ‘Merely a “Scrap of Paper”? The Outer Space Treaty in Historical Perspective’ (2020) 31(2) Diplomacy & Statecraft 350 <<https://doi.org/10.1080/09592296.2020.1760038>>

prohibits national appropriation, but it does not clearly address whether this prohibition extends to private entities or only to states. This has resulted in two primary interpretations of the provision.

49. On one hand, some States and scholars argue for a state-centric interpretation, which holds that the prohibition on appropriation applies strictly to states and their governmental actions. Under this interpretation, private entities could potentially engage in resource extraction activities as long as they do not claim sovereignty over the celestial bodies themselves.<sup>45</sup> This view is based on a narrow reading of Article II, which focuses solely on the actions of States. On the other hand, others contend that the prohibition on appropriation should be interpreted broadly to include private entities.<sup>46</sup> This view is supported by Article VI of the OST, which holds States responsible for national activities in space, including those conducted by non-governmental entities.<sup>47</sup> This implies that states must ensure that private activities comply with the provisions of the Treaty, including the principle of non-appropriation. This inclusive interpretation recognizes that private entities are increasingly playing a significant role in space activities and that their actions must be subject to the same rules and regulations as those of States.

### **C. National Legislation and Bilateral Arrangements**

50. In response to the demands from its domestic space industry, the United States took a significant step in regulating space resource activities with the enactment of the Commercial Space Launch Competitiveness Act (CSLCA) in November 2015. The CSLCA has garnered significant attention, particularly with regard to its Title IV, which focuses on Space Resource Exploration and Utilization. This legislation grants U.S. citizens the right to engage in commercial exploration and recovery of space resources, while also asserting that these activities are consistent with the United States' international obligations under the OST.

51. The U.S. initiative has set a precedent, with other countries following suit. Luxembourg, for instance, has enacted the Law of July 20<sup>th</sup>, 2017, on the Exploration and Use of Space

---

<sup>45</sup> John G Wrench, 'Non-Appropriation, No Problem: The Outer Space Treaty Is Ready for Asteroid Mining' (2019) 51 Case W Res J Intl L 437

<sup>46</sup> Steven Freeland and Ram S Jakhu, 'Commentary on Article II of the Outer Space Treaty' in Stephan Hobe, Bernhardt Schmidt-Tedd and Kai-Uwe Schrogl (eds), *Cologne Commentary on Space Law*, vol 1 (Carl Heymanns Verlag 2010) 53

<sup>47</sup> OST, Art. VI

Resources, also known as the Space Resources Act.<sup>48</sup> Other countries have also joined the ranks of nations with national laws regulating space resource activities. Japan<sup>49</sup> and the United Arab Emirates<sup>50</sup> have enacted laws to regulate space resource activities, demonstrating a growing trend towards national legislation in the absence of a comprehensive international regime. More recently, India has introduced the Indian Space Policy of 2023, which also adopts this approach. These developments highlight the need for a coordinated international framework to govern space resource activities, while also acknowledging the importance of national laws and regulations in shaping the global space governance landscape.

52. The Artemis Accords, a series of bilateral arrangements between NASA and several States, have further reinforced the state practice of the U.S. regarding the extraction and utilization of space resources.<sup>51</sup> Specifically, Section 10 of the Accords addresses the extraction and utilization of space resources, and supports the right of signatories to engage in these activities. Notably, the Accords assert that the extraction and utilization of space resources are consistent with the OST, which is a cornerstone of international space law.

#### **D. The Establishment of the Working Group on Legal Aspects of Space Resource Activities**

53. In response to the growing interest in space resource utilization and the legal ambiguities surrounding it, the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) established the Working Group on Legal Aspects of Space Resource Activities under its Legal Subcommittee.<sup>52</sup> This Working Group was created to address the need for a comprehensive legal framework that can guide the exploration, exploitation, and utilization of space resources.<sup>53</sup> The

---

<sup>48</sup> 'Loi du 20 juillet 2017 sur l'exploration et l'utilisation des ressources de l'espace [Law of 20 July 2017 on the Exploration and Utilization of Space Resources]' (28 July 2017) Journal Officiel du Grand-Duché de Luxembourg, A674-1 <<http://www.legilux.lu/eli/etat/leg/loi/2017/07/20/a674/jo>> accessed 16 July 2024

<sup>49</sup> Act on the Promotion of Business Activities for the Exploration and Development of Space Resources (Act No. 83 of 2021)

<sup>50</sup> UAE Federal Law No. (12) of 2019 on the Regulation of the Space Sector

<sup>51</sup> 'Artemis Accords' (28 April 2023) <<https://www.state.gov/artemis-accords/>> accessed 16 July 2024

<sup>52</sup> See UNOOSA, 'Working Group on Space Resources' <<https://www.unoosa.org/oosa/en/ourwork/copuos/lsc/space-resources/index.html>> accessed 26 July 2024

<sup>53</sup> UNGA 'Draft Report of the Legal Subcommittee on its Sixtieth Session' (31 May–11 June 2021) UN Doc A/AC.105/C.2/L.314/Add.8

<[https://www.unoosa.org/oosa/oosadoc/data/documents/2021/aac.105c.2l/aac.105c.2l.314add.3\\_0.html](https://www.unoosa.org/oosa/oosadoc/data/documents/2021/aac.105c.2l/aac.105c.2l.314add.3_0.html)> accessed 20 July 2024

establishment of this working group underscores the international community's recognition of the importance of developing clear and consistent legal principles for space resource activities.

54. The Working Group operates under a five-year workplan, which includes several key tasks. The initial phase involves collecting and disseminating information from Member States and organizations with permanent observer status. This includes gathering data on scientific and technological developments, current practices, and legal frameworks related to space resource activities. The working group also examines the existing international treaties, particularly the OST and the Moon Agreement, to assess their applicability to space resource activities. This review aims to identify gaps and areas where additional legal instruments may be needed.

55. Based on the information collected and the review of existing frameworks, the working group aims to develop a set of initial recommended principles for space resource activities. These principles are intended to ensure that space resource utilization is conducted in a manner consistent with international law and the principles of the OST. The working group also plans to organize a dedicated international conference to discuss the legal aspects of space resource activities. This conference will provide a platform for Member States, private entities, and other stakeholders to exchange views and reach a consensus on the legal principles governing space resource utilization.

56. Several proposals and recommendations have emerged from these deliberations within UNCOPUOS. There is a consensus on the need for an international governance framework to regulate space resource activities. This framework could include both binding and non-binding norms to address the legal, technical, and environmental aspects of space resource utilization. The working group is tasked with developing a set of principles to guide space resource activities. These principles could cover issues such as transparency, sustainability, benefit-sharing, and the peaceful use of space resources. To ensure that all countries can benefit from space resource activities, there is a call for capacity-building initiatives and technology transfer programs. These initiatives would help developing countries build the necessary infrastructure and expertise to participate in space resource activities. Finally, the importance of international cooperation in space resource activities is emphasized. This includes fostering partnerships between States, private entities, and international organizations to promote the responsible and sustainable use of space resources and a coherent legal framework that ensures the sustainable and equitable utilization of space resources.

#### **IV. CAPACITY-BUILDING IN SPACE LAW**

57. In recent years, there has been a growing recognition of the need for capacity-building in space law, particularly among emerging space-faring nations. The democratization of access to space technologies has created new opportunities for countries to participate in space activities, but it has also highlighted the need for a more inclusive and supportive international framework. Despite the importance of international cooperation in space law, several challenges persist. One of the primary concerns is the need for capacity-building in space law, particularly in developing countries. The lack of expertise and resources in these countries hinders their ability to effectively participate in international space law forums and to develop their own national space laws and policies. This, in turn, creates a significant gap in the global governance of outer space, which can only be addressed through concerted capacity-building efforts.<sup>54</sup>

58. Effective education and capacity-building in space law are vital for developing a new generation of professionals, scholars, and experts in Asia and Africa who can navigate the complexities of the rapidly evolving space landscape. Also, to truly grasp the nuances of space law, it is essential to have a solid foundation in the underlying technologies, applications, and environmental factors that shape the exploration and use of outer space. Furthermore, space law professionals and scholars must possess a strong foundation in law, with a particular emphasis on public international law, and approach space law education and capacity-building from a comprehensive and interdisciplinary perspective. By adopting this approach, education and capacity-building initiatives can promote international cooperation and development in space activities, ultimately enhancing the expertise and capabilities of countries with emerging space programmes.<sup>55</sup>

##### **A. Efforts of the United Nations**

59. The United Nations Office for Outer Space Affairs (UNOOSA) has been at the forefront of efforts to promote capacity-building in space law, through initiatives such as the Space Law for

---

<sup>54</sup> Ram S Jakhu, 'Capacity Building in Space Law and Space Policy' (2009) 44 Space Research 1051

<sup>55</sup> See David Kuan-Wei Chen, 'Space Law Education and Capacity-Building' (29 September 2021) Oxford Research Encyclopaedia of Planetary Science <<https://oxfordre.com/planetaryscience/view/10.1093/acrefore/9780190647926.001.0001/acrefore-9780190647926-e-74>> accessed 20 July 2024

New Space Actors project.<sup>56</sup> This project, which was launched in 2019, aims to provide tailor-made capacity-building to draft, revise, and implement national space legislation and/or national space policies in line with international space law. The project has already shown promising results, with several countries benefiting from the technical assistance and expertise provided by UNOOSA.<sup>57</sup> The project's success is a testament to the importance of international cooperation in promoting the development of space law and ensuring that all countries have the capacity to participate in the global space economy. The ASTRO (Accessing Space Treaty Resources Online) Database under this initiative gives access to UN treaties on outer space and provides a collection of space-related legislation and policies of UNCOPOUS Member States. UNOOSA has also developed e-learning courses on space law and policy through the Space Law for New Actors Programme.<sup>58</sup>

60. Apart from the dissemination of space law, UNOOSA has created the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), which focuses on developing countries to help them access the benefits of space-derived information in all phases of disaster management. It also has a joint initiative, “Access to Space for All”.<sup>59</sup> This initiative provides access to space research facilities, infrastructure, and information, serving as a platform for developing countries to collaborate with space-faring nations and partner institutions for capacity-building. The initiative has already facilitated several partnerships and collaborations, demonstrating the potential for international cooperation to drive progress in space law and development.

## **B. Regional Organisations in Asia and Africa and Capacity Building in Space Law**

61. Regional organisations in Asia and Africa have been actively involved in promoting capacity building in space law. Three notable examples are the Asia-Pacific Space Cooperation

---

<sup>56</sup> See ‘UNOOSA, Space Law Capacity-Building and Advisory Services: Space Law for New Space Actors “Fostering Responsible National Space Activities”’ <<https://www.unoosa.org/oosa/en/ourwork/spacelaw/capacitybuilding/advisory-services/index.html>> accessed 26 July 2024

<sup>57</sup> See, for instance, <sup>57</sup>UNOOSA, “UN Office for Outer Space Affairs and Japan collaborate to support new space law missions to Philippines and Thailand”, <<https://unis.unvienna.org/unis/en/pressrels/2024/unisos595.html#:~:text=The%20Space%20Law%20for%20New,safe%20exploration%20of%20outer%20space>> accessed on 2 July 2024

<sup>58</sup> Id.

<sup>59</sup>UNOOSA, “Access to Space for All” (2023) <[www.unoosa.org/oosa/en/ourwork/access2space4all/index.html](http://www.unoosa.org/oosa/en/ourwork/access2space4all/index.html)> accessed 3 July 2024.



Organization (APSCO), the Arab Space Cooperation Group (ASCG) and the African Union Space Working Group.

## **1. Asia-Pacific Space Cooperation Organization (APSCO)**

62. APSCO is an intergovernmental organisation that aims to promote cooperation in space science, technology, and applications among its Member States. Established in 2005, APSCO is headquartered in Beijing, China. It currently has 8 full members (Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand, Türkiye), 1 signatory (Indonesia), 1 associated member (Egypt), 2 observers (Mexico, Inter-Islamic Network on Space Sciences and Technology). Its mandate includes promoting capacity building, technology transfer, and joint research and development in space-related areas.<sup>60</sup> Member states can cooperate through space technology and its application projects on earth observation, disaster management, environmental protection, resource exploration, satellite communications, satellite navigation and positioning, as well as scientific research, education and training in space science and technology. APSCO has contributed significantly to regional cooperation and capacity building in space law through its various programmes and activities, including the APSCO Joint Technical Workshop, which provides a platform for Member States to share experiences and best practices in space technology and applications.

## **2. Arab Space Cooperation Group (ASCG)**

63. The Arab Space Cooperation Group (ASCG) is a regional space-focused entity established in 2019, and chaired by the UAE Space Agency.<sup>61</sup> The group comprises 14 Member States, including Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Mauritania, Morocco, Oman, Saudi Arabia, Sudan, Tunisia, and the UAE. The ASCG aims to integrate and strengthen Arab capabilities in space science and technology through collaborative efforts, advancing regional space initiatives, enhancing knowledge exchange, and fostering scientific research. The ASCG's mandate includes harmonizing regulations among space authorities, adopting a unified position at regional and international forums, and guiding joint initiatives for comprehensive collaboration.

---

<sup>60</sup> ‘About Us-APSCO’ (<<http://www.apsco.int/html/comp1/channel/aboutus/24.shtml>> accessed 26 July 2024

<sup>61</sup> See ‘Arab Space Cooperation Group’ (<<https://ssa.gov.sa/en/signedMoUsAndAgreements?path=/signed-mous-and-agreements/cooperation-agreements/arab-space-cooperation-group/>> accessed 26 July 2024

The group's objectives are facilitated by initiatives such as the "813" satellite project, which aims to counter environmental challenges, including desertification, and provide space services to the Arab region.

64. The ASCG has made significant positive developments in increasing cooperation between Arab countries in the field of space in a short time. The group's basic charter, adopted in November 2019, aims to enhance knowledge exchange, technical expertise, experiences, and information among Member States. The charter also encourages scientific research and innovation to develop advanced space capabilities and encourages members without space agencies or programs to develop them and cooperate with regional and international organizations.

### **3. African Union Space Working Group**

65. The African Union Space Working Group is a regional organisation that aims to promote cooperation and coordination among African countries in the development and use of space science and technology. The African Union's Science, Technology and Innovation Strategy for Africa 2024 (STISA) provided for the establishment of an African Institute of Space Science, which will serve as a regional hub for space science and technology research and development.<sup>62</sup> The African Union Space Working Group has contributed to regional cooperation and capacity building in space law through its various initiatives, including the African Space Strategy and the African Space Agency, which aim to promote the development of space science and technology in Africa and to enhance the continent's participation in the global space economy.<sup>63</sup>

---

<sup>62</sup> "Science and Technology Division | African Union." (2024) < [au.int/en/st-division](http://au.int/en/st-division) > accessed 3 July 2024.

<sup>63</sup> 'African Group Statement during the Sixty-Sixth Session of the United Nations Committee on the Peaceful Uses of Outer Space – South African Council for Space Affairs' (16 November 2023) <<http://www.sacsa.gov.za/african-group-statement-during-the-sixty-sixth-session-of-the-united-nations-committee-on-the-peaceful-uses-of-outer-space/>> accessed 22 July 2024

## **V. COMMENTS AND OBSERVATIONS BY THE AALCO SECRETARIAT**

66. The Asian-African Legal Consultative Organization (AALCO) has significant potential to serve as a collaborative platform for capacity building in space law, particularly in partnership with the United Nations Office for Outer Space Affairs (UNOOSA). By developing and implementing joint capacity-building programs, AALCO can address the unique legal challenges faced by Asian and African countries in the rapidly evolving domain of outer space activities. This collaboration could include co-organizing regional workshops and conferences aimed at enhancing knowledge sharing and legal expertise among Member States. Such initiatives would not only empower these countries to navigate the complexities of space governance but also enable UNOOSA to effectively reach out to and assist states in these regions.

67. The Secretariat also emphasizes the importance of collaborating with regional organizations in Asia and Africa, such as the Asia-Pacific Space Cooperation Organization (APSCO), the African Union Space Working Group, and the Arab Space Cooperation Group. This collaboration will facilitate a better understanding and documentation of the unique requirements and challenges faced by the respective regions. By jointly implementing capacity-building initiatives, AALCO can effectively address the specific needs of these regions. Furthermore, the AALCO Secretariat is well-equipped to provide legal assistance will aid Member States in developing their national space laws and policies. This includes offering guidance on best practices for space legislation through comprehensive research, ultimately leading to the creation of a “Best Practices Framework for Developing Space Legislation in Asia and Africa.”

68. In light of the rapidly evolving landscape of outer space activities, the Secretariat emphasizes the importance of active participation by its Member States in the deliberations of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) and the Conference on Disarmament (CD). Even if some AALCO Member States may not be actively engaged in space-faring activities at present, it is crucial that they closely follow and contribute to the development of international space law and policy. This is because the rules and regulations being formulated today will have far-reaching implications for the future of space exploration, use, and governance. By participating in multilateral processes, AALCO Member States can ensure that their interests are represented and that they are not relegated to being mere “rule-takers” in the making of the rules of the road for outer space. The Secretariat, therefore, urges AALCO Member

States to commit to multilateral processes in space law-making and to actively engage in shaping the future of international space law and policy.

## ANNEX

SECRETARIAT'S DRAFT  
AALCO/RES/DFT/62/S20  
13 SEPTEMBER 2024

### LEGAL ISSUES IN OUTER SPACE

*The Asian-African Legal Consultative Organization at its Sixty-Second Session,*

**Having considered** the Secretariat Document No. AALCO/62/BANGKOK/2024/SD/S20,

**Noting with appreciation** the introductory statement of the Secretariat,

**Recalling** the Outer Space Treaty of 1967 and other foundational treaties of space law, as well as the customary international law relating to the exploration and use of outer space,

**Mindful of** the growing importance of outer space activities and the need for a comprehensive and more harmonized legal framework,

**Conscious** that AALCO has a crucial role to play in promoting international cooperation and understanding of legal issues in outer space,

**Hopeful** that in view of the importance of outer space issues, AALCO would maintain its consideration on the agenda item and continue to perform its role in promoting the development of international space law,

**Taking note of** the deliberations at the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) and its subcommittees,

**Also taking note of** the work done by the International Telecommunication Union (ITU) and other international organizations in regulating outer space activities,

1. **Reaffirms** that outer space shall be used for peaceful purposes only and that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development;

2. **Urges** the full and effective participation of its Member States in the work of UNCOPUOS. its subsidiary bodies and working groups, as well as in the ITU and other international organizations regulating outer space activities, to ensure and safeguard their legitimate interests;
3. **Directs** the Secretariat to hold seminars and workshops, depending on the availability of financial and personnel resources, to discuss the issues and recent developments relating to outer space law on which Member States have interests and demands capacity-building;
4. **Requests** the Secretariat to assist in the capacity-building of Member States within the field of outer space law through varied ways such as joint training programmes with States and inter-governmental organizations, and calls upon Member States to offer all possible support and assistance; and
5. **Decides** to place this item on the agenda of the Sixty-Third Annual Session of AALCO.