

THE MUN FACTORY

UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS

DELEGATE GUIDE

AGENDA:

Deliberation on Establishing an International Governance
Framework for Lunar Resources Extraction and Permanent Lunar
Settlements

30 OCTOBER – 1 NOVEMBER 2026

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1.3 1. About the United Nations Office for Outer Space Affairs (UNOOSA) and COPUOS

1.3.1 Introduction

The United Nations Office for Outer Space Affairs (UNOOSA) is the United Nations office responsible for promoting international cooperation in the peaceful uses of outer space. It serves as the secretariat for the Committee on the Peaceful Uses of Outer Space (COPUOS), which was established by the General Assembly in 1959 to govern the exploration and use of space [1]. COPUOS and its two subcommittees (Scientific and Technical Subcommittee, and Legal Subcommittee) are the primary forums for multilateral discussions on space law and policy within the UN system.

1.3.2 Mandate

UNOOSA's mandate includes:

- Implementing the decisions of the General Assembly and COPUOS.
- Assisting developing countries in using space science and technology for economic and social development.
- Maintaining the United Nations Register of Objects Launched into Outer Space.
- Promoting international cooperation in the peaceful uses of outer space.

COPUOS's overall mandate aims at strengthening the international legal regime governing outer space, resulting in improved international cooperation in the peaceful uses of outer space [2].

1.3.3 Membership

COPUOS was established with 24 members in 1959 and has since grown to 104 Member States [3]. Membership is open to all UN Member States with an interest in space activities.

1.3.4 Powers and Limitations

Similar to other UN committees, COPUOS operates on consensus and its resolutions and recommendations are generally not legally binding in themselves, but they form the basis for international treaties and principles that can be legally binding. Its influence stems from its role as the primary international forum for discussing and developing space law, fostering cooperation, and building consensus among Member States on critical issues related to outer space activities.

1.4 2. Understanding the Agenda

1.4.1 Definitions

- **Lunar Resources:** Refers to any natural resources found on or beneath the surface of the Moon, including but not limited to water ice, helium-3, rare earth elements, and regolith (lunar soil) which can be used for construction or as a source of oxygen and fuel.
- **Lunar Resources Extraction:** The process of identifying, accessing, and processing lunar resources for scientific, commercial, or other purposes.
- **Permanent Lunar Settlements:** Long-term human habitats or infrastructure established on the Moon, designed for sustained presence and operations, potentially including research stations, mining outposts, or even future human colonies.
- **International Governance Framework:** A system of international laws, norms, principles, rules, and decision-making procedures that regulate the activities of states and other actors in a specific domain, in this case, lunar resources extraction and settlements.
- **Outer Space Treaty (OST):** The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, adopted in 1967. It forms the bedrock of international space law.
- **Moon Agreement:** The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, adopted in 1979. It declares the Moon and its natural resources as the common heritage of mankind and establishes a regime for its exploitation, but it has not been widely ratified.
- **Artemis Accords:** A series of non-binding bilateral agreements between the United States and other nations, establishing principles for cooperation in lunar exploration, including provisions for space resource utilization.
- **International Lunar Research Station (ILRS):** A proposed joint project primarily by China and Russia to establish a permanent lunar base, open to international partners.

1.4.2 Scope of the Agenda

This agenda calls upon UNOOSA and COPUOS to deliberate on the establishment of a comprehensive international governance framework for lunar resources extraction and permanent lunar settlements.

The rapid advancements in lunar exploration, coupled with increasing interest from both state and private actors in utilizing lunar resources, necessitate a robust and equitable framework to ensure peaceful, sustainable, and beneficial activities for all. The deliberation should address the legal, ethical, environmental, and economic implications of such activities, considering existing international space law and emerging national policies.

1.4.3 Why the Issue Matters Today

- **Accelerated Lunar Exploration:** Missions like NASA's Artemis program and China's ILRS initiative are pushing towards a sustained human presence on the Moon, making resource extraction and permanent settlements a near-term reality [4] [5].
 - **Resource Scarcity and Economic Potential:** Lunar resources, particularly water ice for propellant and life support, and helium-3 for potential fusion energy, hold significant economic and strategic value. The lack of clear governance could lead to disputes and an unregulated race for resources.
 - **Environmental Concerns:** Unregulated extraction and settlement could lead to environmental degradation of the lunar surface, impacting future scientific research and cultural heritage.
 - **Legal Ambiguity:** While the Outer Space Treaty provides a foundational framework, it does not explicitly address property rights or resource utilization in detail. The Moon Agreement, which does, has limited ratification, leaving a legal vacuum.
 - **Security and Stability:** The absence of a clear governance framework could lead to geopolitical tensions and conflicts over lunar territories and resources, undermining the principle of peaceful uses of outer space.
 - **Equitable Benefit Sharing:** Ensuring that the benefits of lunar resource extraction are shared equitably among all nations, particularly developing countries, is a critical ethical and political challenge.
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1.5 3. Historical Background of Space Law and Lunar Exploration

1.5.1 Early Space Law Development

The foundation of international space law was laid during the Cold War era, driven by the rapid advancements in space technology. The key instruments include:

- **Outer Space Treaty (1967):** This treaty is the cornerstone of international space law. It declares outer space, including the Moon and other celestial bodies, as the province of all mankind, not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means. It also mandates that space activities be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development [6].
- **Rescue Agreement (1968):** Focuses on the rescue of astronauts, the return of astronauts, and the return of objects launched into outer space.
- **Liability Convention (1972):** Establishes international rules and procedures concerning liability for damage caused by space objects.
- **Registration Convention (1976):** Requires states to register objects launched into Earth orbit or beyond with the United Nations.

1.5.2 The Moon Agreement (1979)

The Moon Agreement was an attempt to further elaborate on the principles of the Outer Space Treaty, specifically for the Moon and other celestial bodies. It declares the Moon and its natural resources as the common heritage of mankind and calls for the establishment of an international regime to govern the exploitation of these resources when such exploitation becomes feasible. However, due to concerns over its provisions regarding resource exploitation and the common heritage principle, it has not been widely ratified by major spacefaring nations [7].

1.5.3 Recent Developments and National Initiatives

In recent years, there has been a resurgence of interest in lunar exploration and resource utilization, leading to new national policies and international partnerships:

- **Artemis Accords (2020):** Led by the United States, these non-binding bilateral agreements aim to establish a common set of principles to guide civil space exploration and use. They include provisions for the extraction and utilization of space resources, asserting that such activities can be conducted in a manner consistent with the Outer Space Treaty [8]. As of April 2026, Artemis II, the first crewed lunar fly-by in 50 years, was launched, with Artemis III (lunar landing) planned for late 2027 [9].
 - **International Lunar Research Station (ILRS):** China and Russia are leading an initiative to build a permanent lunar base, the ILRS, by 2035. This project is open to international partners and aims to conduct comprehensive scientific research and resource development. China's Chang'e-7 mission, scheduled for 2026, will conduct environment and resource surveys in the lunar south pole region, a key step for ILRS [10].
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1.6 4. Current Global Situation — Lunar Activities and Resource Prospects

1.6.1 Renewed Interest in Lunar Exploration

The past decade has seen a significant increase in lunar exploration efforts by both governmental and private entities. This renewed interest is driven by scientific curiosity, technological advancements, and the potential for economic benefits from lunar resources. Several nations and private companies are developing plans for lunar missions, including robotic probes, human landings, and the establishment of permanent infrastructure.

1.6.2 Key Lunar Resources and Their Significance

- **Water Ice:** Considered the most crucial resource, water ice found in permanently shadowed regions at the lunar poles can be used for drinking water, oxygen for life support, and hydrogen/oxygen propellant for rockets. This makes in-situ resource utilization (ISRU) a game-changer for sustainable lunar and deep-space missions.
- **Helium-3:** A light, non-radioactive isotope of helium, abundant on the Moon but rare on Earth. It is considered a potential fuel for future nuclear fusion reactors, offering a clean and efficient energy source.
- **Rare Earth Elements and Metals:** Lunar regolith may contain valuable minerals and metals that could be extracted for use in space or transported back to Earth.

- **Regolith:** Lunar soil itself can be used as a building material for habitats and infrastructure, providing radiation shielding and thermal insulation.

1.6.3 Challenges and Opportunities of Lunar Resource Extraction

Challenges:

- **Technological Hurdles:** Developing and deploying efficient and reliable extraction and processing technologies in the harsh lunar environment.
- **High Costs:** The initial investment for lunar mining operations will be substantial.
- **Environmental Impact:** Potential disruption of the lunar environment, including dust generation and alteration of pristine scientific sites.
- **Legal and Regulatory Uncertainty:** The lack of a clear international framework creates risks for investors and potential for disputes.

Opportunities:

- **Sustainable Space Exploration:** ISRU can significantly reduce the cost and logistical complexity of long-duration space missions.
- **New Industries and Economic Growth:** Lunar resource extraction could spur the development of new space industries, creating jobs and economic opportunities.
- **Scientific Advancement:** Access to lunar resources can facilitate more extensive scientific research on the Moon and beyond.
- **International Cooperation:** The shared challenges and benefits of lunar resource utilization can foster greater international collaboration.

1.7 5. International Legal Framework for Outer Space and Lunar Activities

1.7.1 The Outer Space Treaty (OST) and its Interpretation

The Outer Space Treaty (1967) remains the primary legal framework governing activities in outer space. Key provisions relevant to lunar resources and settlements include:

- **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 and shall be the province of all mankind. It also promotes freedom of scientific investigation.
- **Article II:** Prohibits national appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty, by means of use or occupation, or by any other means. This article is central to the debate on property rights and resource ownership.
- **Article VI:** States bear international responsibility for national activities in outer space, whether carried out by governmental agencies or non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions of the Treaty.
- **Article XI:** Requires states to inform the UN Secretary-General, the public, and the international scientific community of the nature, conduct, locations, and results of such activities.

The interpretation of Article II regarding resource extraction is a major point of contention. Some argue that while national appropriation of territory is forbidden, the extraction and utilization of resources,

once extracted, is permissible. Others contend that resource extraction inherently implies a form of appropriation, which is prohibited.

1.7.2 The Moon Agreement (1979) and its Limited Ratification

The Moon Agreement attempts to clarify the ambiguities of the OST regarding lunar resources. Its most significant provision is Article 11, which declares the Moon and its natural resources as the common heritage of mankind and states that an international regime shall be established to govern the exploitation of these resources. However, only a small number of states have ratified the Moon Agreement, and notably, no major spacefaring nations are parties to it. This significantly limits its practical applicability and effectiveness in establishing a universal governance framework.

1.7.3 The Artemis Accords and Customary International Law

The Artemis Accords, while not a treaty, represent a political commitment by signatory nations to a set of principles for lunar exploration. They explicitly state that the extraction and utilization of space resources can be conducted in a manner consistent with the Outer Space Treaty. Proponents argue that the Accords are developing customary international law by establishing state practice and *opinio juris* (a sense of legal obligation). Critics, however, worry that the Accords could undermine multilateral efforts within COPUOS and create a fragmented legal regime, potentially favoring nations with advanced space capabilities.

1.7.4 Other Relevant International Law and Principles

- **International Telecommunication Union (ITU) Regulations:** Govern the allocation of radio frequencies and orbital slots, crucial for lunar communications and navigation.
 - **Environmental Law Principles:** While not directly applicable to the Moon, principles of environmental protection and sustainable development from Earth-based law may inform discussions on lunar environmental stewardship.
 - **Liability and Registration Conventions:** These treaties remain relevant for activities on the Moon, addressing responsibility for damage and the registration of lunar objects.
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1.8 6. Evaluating Approaches to Lunar Governance

Various approaches have been proposed for governing lunar resource extraction and permanent settlements, each with its own advantages and disadvantages.

1.8.1 Option 1: Strengthening the Moon Agreement

- **Description:** Encourage more states, especially major spacefaring nations, to ratify the Moon Agreement, thereby activating its provisions for an international regime.
- **Pros:** Provides a pre-existing legal framework, emphasizes the common heritage of mankind principle, and aims for equitable benefit sharing.
- **Cons:** Unlikely to gain widespread ratification from major spacefaring nations due to concerns about restrictions on resource utilization and perceived disincentives for investment. Its current limited membership makes it ineffective.

1.8.2 Option 2: Developing a New Multilateral Treaty within COPUOS

- **Description:** Negotiate a new international treaty under the auspices of COPUOS that specifically addresses lunar resource extraction and permanent settlements, building upon the principles of the Outer Space Treaty.
- **Pros:** Would involve all UN Member States, ensuring a more inclusive and universally accepted framework. Could address contemporary issues not foreseen in earlier treaties.
- **Cons:** Negotiations could be lengthy and complex, potentially delaying the establishment of much-needed governance. Reaching consensus among 104 member states with diverse interests could be challenging.

1.8.3 Option 3: Expanding the Artemis Accords

- **Description:** Encourage more nations to sign and adhere to the Artemis Accords, allowing its principles to evolve into customary international law through widespread state practice.
- **Pros:** Offers a more agile and less bureaucratic approach than a full UN treaty. Provides a framework for like-minded nations to proceed with lunar activities while upholding certain principles.
- **Cons:** Excludes nations not party to the Accords, potentially leading to a fragmented legal regime and increased geopolitical tensions. May be perceived as an attempt by a few nations to dictate norms for all.

1.8.4 Option 4: A Hybrid Approach

- **Description:** Combine elements of the above, perhaps using the Artemis Accords as a basis for practical cooperation among participating nations, while simultaneously working within COPUOS to develop broader, more inclusive principles or guidelines.
- **Pros:** Allows for immediate progress on lunar activities while working towards a more comprehensive and universally accepted framework. Could foster cooperation between different blocs of nations.
- **Cons:** May still suffer from fragmentation if the two approaches diverge significantly. Requires careful coordination to ensure consistency and avoid conflicting norms.

1.9 7. Country & Regional Bloc Positions (General Considerations)

Delegates should consider the following general positions when formulating their country's stance on lunar governance:

- **Major Spacefaring Nations (e.g., USA, China, Russia, EU nations, Japan):** These nations have significant investments in space exploration and resource utilization. Their positions often balance the desire for freedom of access and commercial opportunities with the need for stability and international cooperation. They may favor frameworks that protect their investments and technological advantages.
- **Emerging Spacefaring Nations (e.g., India, UAE, South Korea):** These nations are rapidly developing their space capabilities and are keen to participate in lunar activities. They may advocate for equitable access to resources and technology transfer, ensuring that the benefits of space are shared broadly.

- **Developing Nations (Non-Spacefaring):** These nations, while not directly involved in lunar missions, have a vested interest in ensuring that outer space activities benefit all humanity. They may strongly advocate for the common heritage principle and mechanisms for equitable benefit sharing, and may be wary of frameworks that could lead to monopolization by a few powerful actors.
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1.10 8. Previous UN Action on Space Resources

COPUOS, through its Legal Subcommittee, has been actively discussing the legal aspects of space resource activities for several years. The **Working Group on Legal Aspects of Space Resource Activities** was established to consider existing international legal frameworks and potential new instruments related to space resources. This working group has been instrumental in facilitating discussions among Member States on the interpretation of the Outer Space Treaty concerning resource utilization and the need for a common understanding or new legal norms [11].

Key discussions within COPUOS have revolved around:

- **Interpretation of Article II of the OST:** Whether the prohibition on national appropriation extends to the resources *in situ* or only to the celestial bodies themselves.
- **The Common Heritage of Mankind Principle:** The applicability and practical implications of this principle, particularly as articulated in the Moon Agreement, to lunar resources.
- **Transparency and Registration:** The need for greater transparency in lunar activities and the potential expansion of registration requirements for lunar missions and resource extraction operations.
- **Environmental Protection:** Discussions on developing guidelines or principles to prevent harmful contamination and preserve the lunar environment.
- **Benefit Sharing:** Exploring mechanisms to ensure that the benefits derived from lunar resources are shared equitably among all nations, taking into account the needs of developing countries.

In April 2026, the United States indicated its intention to use ground development and early space resource demonstration missions to inform its inputs to this working group, highlighting the ongoing nature and importance of these discussions [12].

1.11 9. Questions a Resolution Should Address

To effectively establish an international governance framework for lunar resources extraction and permanent lunar settlements, a resolution from UNOOSA/COPUOS should consider addressing the following key questions:

- **Legal Status of Lunar Resources:** How should lunar resources be legally defined and treated under international law? Should they be considered *res communis* (common property), *res nullius* (belonging to no one), or a distinct category?
- **Property Rights and Ownership:** Can entities (states, private companies) claim ownership of extracted lunar resources? If so, under what conditions and with what limitations?

- **Authorization and Supervision:** What international mechanisms should be established to authorize, supervise, and regulate lunar resource extraction and settlement activities? Who would be responsible for granting licenses or permits?
 - **Environmental Protection:** What specific measures are needed to protect the lunar environment from harmful contamination and irreversible alteration due to resource extraction and settlement activities? How can scientific and heritage sites be preserved?
 - **Safety Zones and Deconfliction:** How can safety zones be established around lunar operational areas to prevent interference and potential conflicts between different actors? What mechanisms can be put in place for deconfliction?
 - **Benefit Sharing:** How can the benefits derived from lunar resource utilization be shared equitably among all nations, particularly non-spacefaring and developing countries? Should a fund be established, or should technology transfer and capacity building be prioritized?
 - **Liability and Responsibility:** How should liability for damage caused by lunar resource extraction or settlement activities be determined and enforced? What role should international organizations play in ensuring accountability?
 - **Dispute Resolution:** What mechanisms should be available for resolving disputes that may arise from lunar resource extraction and settlement activities?
 - **Role of Private Actors:** How should the activities of private companies in lunar resource extraction and settlement be regulated and overseen by states and the international community?
 - **Relationship with Existing Treaties:** How will a new governance framework interact with and build upon the Outer Space Treaty and, for its signatories, the Moon Agreement?
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1.12 10. Delegate Research Guide

Delegates are encouraged to conduct thorough research on the following areas to prepare for the deliberation:

- **National Space Policies:** Investigate your country's official stance and policies on lunar exploration, resource utilization, and permanent settlements. Look for national space laws, white papers, or statements made at international forums.
- **Economic and Strategic Interests:** Analyze your country's potential economic and strategic interests in lunar resources. Does your country have the technological capability or aspirations to participate in lunar activities?
- **Environmental and Ethical Concerns:** Research the environmental and ethical implications of lunar resource extraction from your country's perspective. Are there specific concerns about lunar heritage, scientific preservation, or the long-term sustainability of lunar activities?
- **International Law Interpretation:** Examine how your country interprets key provisions of the Outer Space Treaty, particularly Article II, and its position on the Moon Agreement and the Artemis Accords.
- **Technological Capabilities:** Understand the current and projected technological capabilities for lunar resource extraction and settlement, both globally and within your country.

- **Case Studies:** Look for examples of international cooperation or conflict in other resource-rich environments (e.g., deep-sea mining, Arctic resources) to draw parallels and lessons learned.
 - **Statements from International Organizations:** Review reports and statements from UNOOSA, COPUOS, and other relevant international bodies on space resource governance.
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1.13 11. Glossary, Official Resources & Bibliography

1.13.1 Glossary

- **COPUOS:** Committee on the Peaceful Uses of Outer Space
- **ISRU:** In-Situ Resource Utilization
- **ILRS:** International Lunar Research Station
- **OST:** Outer Space Treaty
- **UNOOSA:** United Nations Office for Outer Space Affairs

1.13.2 Official Resources

- **United Nations Office for Outer Space Affairs (UNOOSA):** <https://www.unoosa.org/>
- **Committee on the Peaceful Uses of Outer Space (COPUOS):** <https://www.unoosa.org/oosa/en/ourwork/copuos/index.html>
- **Outer Space Treaty (1967):** <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html>
- **Moon Agreement (1979):** <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/moon-agreement.html>
- **Artemis Accords:** <https://www.nasa.gov/artemis-accords/>
- **COPUOS Working Group on Legal Aspects of Space Resource Activities:** <https://www.unoosa.org/oosa/en/ourwork/copuos/lsc/space-resources/index.html>

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