



Forum: Sixth Committee (Legal)

Question of: Debating the matter of mining resources in space

Student Officer: Henri Willems

E-Mail: sixthcommittee@gym-meiendorf.de

I. Description of the Issue

The discussion over mining for minerals in space is the topic at hand. The investigation and extraction of valuable resources from celestial bodies like the moon, asteroids, and other planets are the focus of this discussion with the main focus being on the morality, legality, and probable repercussions of mineral mining in space. Therefore the direction of the discussion should center on addressing the difficulties, advantages, and dangers connected to space mining. Space-faring nations like the United States, Russia, China, the European Space Agency (ESA), for-profit businesses like SpaceX and Blue Origin, and international organizations like the United Nations Office for Outer Space Affairs (UNOOSA) and the International Astronomical Union (IAU) are some of the major nations and organizations involved in this topic.

II. Key Term Definitions

- **Mining:** The extraction of valuable materials and resources from celestial planets outside of Earth.
- **Space mining:** Is the activity of taking resources from planets, asteroids, and other celestial bodies in space.
- **Celestial bodies:** This includes the moon, asteroids, comets, and planets as examples of natural space objects.
- **UNOOSA:** The United Nations Office for Outer Space Affairs, a department of the UN tasked with fostering global cooperation in space-related endeavors
- **IAU:** The International Astronomical Union, an international group that fosters and manages collaboration in astronomy.



III. Background Information

The practice of mining resources in space has recently garnered significant attention due to remarkable advancements in space exploration technology. The exploration and exploitation of extraterrestrial resources carry profound implications for society, politics, and the economy, generating multifaceted discussions and debates. Within the realm of society, the concept of space mining raises concerns about the fair and equitable distribution of resources, the potential impact on terrestrial industries, and the ethical dimensions of resource extraction beyond Earth. Questions surrounding environmental sustainability, responsible resource management, and the preservation of celestial bodies as common heritage emerge as central themes in these discussions.

Furthermore, the political landscape surrounding space mining encompasses a complex web of considerations. It entails addressing issues of ownership rights, international agreements, and the establishment of effective regulatory frameworks. Determining the legal framework for resource extraction and allocation presents a significant challenge, as it necessitates international cooperation, coordination, and consensus-building. Moreover, the political dynamics encompass questions of space governance, including the role of government agencies, private enterprises, and international organizations in overseeing and regulating space mining activities. The establishment of norms, protocols, and guidelines for responsible mining practices in space becomes imperative to ensure transparency, accountability, and the prevention of conflicts of interest.

Space mining has the potential to economically extract large amounts of precious resources, such as rare metals, minerals, and possibly even water and energy sources. Access to these resources could transform the way that industries operate on Earth, paving the way for improvements in engineering, manufacturing, and energy generation. Space mining has significant potential economic benefits since it might lessen reliance on limited terrestrial resources, promote economic growth, and create new opportunities for innovation and entrepreneurship. The establishment of a strong infrastructure for resource extraction, transportation, and processing, as well as significant investments in research and development and technological improvements, are necessary to realize these economic gains.



In historical context, space mining is a relatively new concept that is yet to be fully realized. Although there haven't been any significant mining operations, the exploratory flights carried out by several space agencies have been essential in laying the framework for subsequent initiatives. Recent lunar missions and historical missions like the Apollo program, which put people on the moon, have shed light on the existence and possible availability of commodities in space. These missions have provided a window into the makeup of celestial bodies, the existence of water ice, and the geological traits that might point to resource-rich areas.

The subject of space mining also involves legal structures. The Outer Space Treaty of 1967, which established the values of peaceful exploration, the ban on state appropriation, and the acknowledgment of celestial bodies as the collective heritage of humanity, serves as the cornerstone of international space law. Although the treaty forbids assertions of sovereignty over heavenly bodies, it makes no mention of resource exploitation specifically. This legal ambiguity has spurred discussions and debates about how to interpret and modify current international law to account for the developing industry of space mining. International discussion of the necessity for additional clarification and the creation of particular legal frameworks to regulate resource extraction in space continues.

In summary, the practice of mining resources in space represents a dynamic and evolving field with profound implications for society, politics, and the economy. Addressing concerns surrounding resource distribution, environmental sustainability, and political governance is crucial to ensure a responsible and equitable approach to space mining. By fostering international cooperation, engaging in transparent and inclusive discussions, and developing robust legal and regulatory frameworks, humankind can navigate the challenges and opportunities presented by space mining and unlock the vast potential of extraterrestrial resources for the benefit of all.



IV. Major Participating Nations and Organizations

- **The United States:** As the world's foremost spacefaring country, the United States has demonstrated a strong interest in space mining and has put legislation and regulations in place to support business space operations.
- **Russia,** which has a long history of space exploration, has expressed interest in space mining and is working hard to advance the field.
- **China:** As a significant space exploration power, China has made space mining a part of its long-term strategic ambitions.
- **European Space Agency (ESA):** The ESA promotes space research and exploration, including studies pertaining to space mining, and is a representative of several European nations.
- **Private businesses like SpaceX, Blue Origin, and others** are leading the way in commercial space activities, including space mining projects.

V. Timeline of Events

Date	Event
In 1959	Luna 2 becomes the first human-made object to reach the Moon.
In 1967	The Outer Space Treaty is signed, establishing the legal framework for space activities
1972-1973	Apollo missions (Apollo 17) bring back lunar samples, revealing the presence of valuable resources on the Moon.
In 2015	U.S. Commercial Space Launch Competitiveness Act is passed, granting property rights to resources extracted from celestial bodies by U.S. citizens or companies.
In 2018	Luxembourg establishes a legal framework for space resource utilization, becoming the first European country to do so.



In 2020	China's Chang'e 5 mission successfully collects lunar samples, showcasing their commitment to lunar exploration and potential resource utilization.
In 2021	NASA's Artemis program aims to return astronauts to the Moon by 2024, with a focus on sustainable lunar exploration and potential resource extraction.

VI. Previous attempts to solve this issue

Although there have not yet been any significant space mining activities, earlier efforts to solve the problem have centered on developing international agreements and regulations. However, resource extraction for the benefit of all nations is permitted under the 1967 Outer Space Treaty, which forbids state appropriation of celestial bodies. Frameworks for property rights and commercial space activities have also been attempted to be established; examples include the Luxembourg space resource use legislation and the U.S. Commercial Space Launch Competitiveness Act.

VII. Possible Solutions

1. Establish an international regulatory framework: Develop a comprehensive agreement among spacefaring nations to regulate resource mining activities in space, addressing ownership, environmental concerns, and equitable distribution of resources.
2. Encourage collaboration and information sharing: Promote cooperation between countries and organizations to share scientific research, technological advancements, and best practices related to space mining.
3. Conduct further scientific research: Invest in exploration missions and scientific studies to gain a better understanding of resource availability, potential extraction methods, and environmental impacts.



4. Develop sustainable mining practices: Emphasize the importance of sustainable resource extraction methods in order to minimize environmental damage and ensure long-term viability of space mining operations.

VIII. **How to prepare as delegate**

Researching your country's position on space mining and identifying the most important priorities and concerns are essential for delegates. In order to increase support for your cause, think about possible alliances and collaborations with other nations. Learn about pertinent international agreements, rules, and programs that pertain to space mining. To actively participate in the discussion, resolutions and position papers must also be written. The deadline for those is the 13th of September, please make sure to send at least two position papers and one draft resolution before that.

IX. **UN Resolutions**

1. UN General Assembly Resolution A/RES/74/82 - International cooperation in the peaceful uses of outer space.

2. UN General Assembly Resolution A/RES/71/90 - Declaration on the Use of Space for Sustainable Development.

X. **Useful Links**

- United Nations Office for Outer Space Affairs (UNOOSA): (<http://www.unoosa.org>)
- International Astronomical Union (IAU): (<http://www.iau.org>)
- European Space Agency (ESA): (<http://www.esa.int>)
- NASA Artemis Program: (<http://www.nasa.gov/artemis>)
- U.S. Commercial Space Launch Competitiveness Act: (<https://www.congress.gov/bill/114th-congress/senate-bill/1297>)



XI. Sources

- [Outer Space Treaty \(1967\)](#)
- [U.S. Commercial Space Launch Competitiveness Act \(2015\) - Luxembourg Space Resources Law \(2018\)](#)
- [NASA.gov](#)
- [ESA.int](#)