

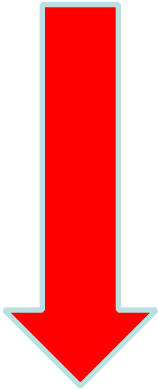
# Current International Legal Framework Applicability to Space Resource Activities

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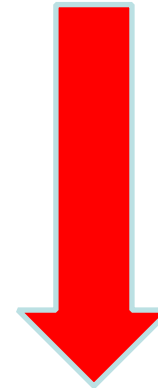
# Background

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The prospect for commercial utilization of outer space resources has generated



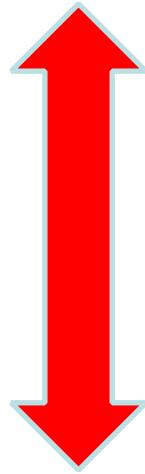
Interest



Controversy

*Is the commercial utilization  
of outer space resources  
legal under international  
space law?*

*Easy question*

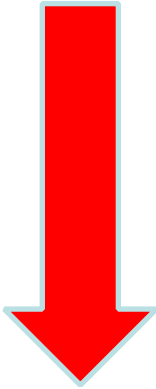


*Complex answer*

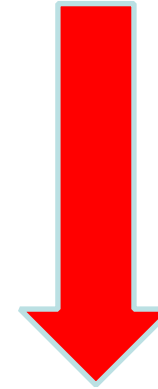
*International space law  
does not give a clear and  
universally accepted  
answer to this question*

# Background

The international legal framework applicable  
space resources utilization remains somewhat  
uncertain



Interpretation



State Practice

# Recovery and utilization of space resources

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Recovery and utilization of  
space resources

Scientific purposes

Recovery and utilization of  
space resources

Commercial reasons (profit)

International legal  
framework applicable  
to space resources  
utilization



# International space law

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1967 Outer Space Treaty

Widely ratified  
(including all space-faring  
countries)

1979 Moon Agreement

Poorly ratified  
(main space-faring  
countries not parties to it)

# The Outer Space Treaty

# Art. I, Outer Space Treaty

“The exploration and use of outer space, including the Moon and other celestial bodies, **shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.**

Outer space, including the Moon and other celestial bodies, **shall be free for exploration and use by all States** without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies. ”

## **Art. II, Outer Space Treaty**

*“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.”*

# Art. VI, Outer Space Treaty

*“States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty.*

***The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty”.***

# The Outer Space Treaty

## Moon/Celestial bodies vs. Resources

### Celestial bodies

Clear legal status

- **Non-appropriable**
- Open for exploration and use
- Outer space as an international area (global common)
- Freedom of scientific investigation

### Resources

Uncertain legal status

- No specific reference
- Scope of Art. II remains uncertain
- Does the prohibition to appropriate extend to outer space resources?

# Interpreting the Outer Space Treaty

## 1<sup>st</sup> School

Art. II's prohibition extends to outer space resources

Not possible to separate resources from the body that contains them

Private commercial use of resources inconsistent with Art. I

## 2<sup>nd</sup> School

Art. II's prohibition does not cover celestial bodies' resources

Right to use resources is enshrined in Art. I

Commercial utilization of resources is not inconsistent with the spirit of the Treaty

# Legality of space resources utilization

## Arguments in favor of space resources utilization

### ➤ **Analogy with the high seas regime**

Fishing in the high seas is allowed

### ➤ **Drafting history**

No indication that the drafters wanted to exclude commercial forms of use

### ➤ **Use of outer space resources**

Space resources, i.e. the geostationary orbit, are being used

### ➤ **State practice**

Certain countries have officially recognized the legality of space mining and adopted related domestic legislation



# Legality of space resources utilization

## Important remarks

### **High seas and geostationary orbit regimes**

- International recognition
- International agreement
- Rules
- Rights of States



**No such recognition/agreement exists with respect to the commercial utilization of space resources**

# Outer Space Treaty - Summary

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- The status of space resources remains substantially unclear
- Arguments in favor of the legality of commercial utilization of space resources can be made; however, uncertainty remains.
- Can a State authorize private entities to undertake space mining activities and recognize rights over the extracted resources by means of national legislation?

# The Moon Agreement

# Background of the Moon Agreement

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- It was intended to clarify the legal status of celestial bodies resources and set out rules governing their utilization.
- It regulates two forms of resources utilization:  
1) scientific; 2) non-scientific (commercial/exploitation).
- It introduces the concept of the Common Heritage of Mankind.
- It has been ratified by only a limited number of countries, not including the main space-faring ones

# The exploration, use, and exploration for scientific purposes 1

The Moon Agreement elaborates the concept of freedom of scientific investigation through its provisions concerning the three phases in which such scientific activities may take place

1

landing

2

establishing of stations

3

extraction of resources

# The exploration, use, and exploration for scientific purposes 2

## Landing (Article 8)

States parties may

land their space objects on the Moon

place their personnel, vehicles, equipment, facilities on or below the surface of the Moon

## Establishing stations (Article 9)

States parties may

establish manned and unmanned stations on the Moon

use only that area which requested for the needs of the stations

not impede the free access to all Moon areas

## Extraction of resources (Article 6)

In carrying out scientific investigation States Parties may

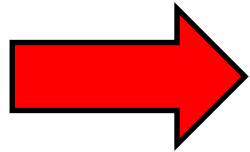
**collect or remove Moon samples or minerals**

**use those minerals in quantities appropriate for the support of the mission**

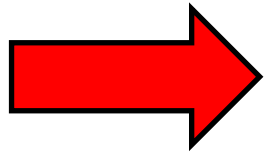
make portions of such samples available to others

# Exploitation (non-scientific use) of resources

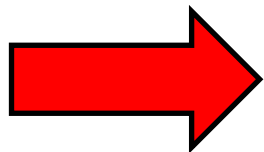
Article 11 of the Agreement regulates the exploitation of celestial bodies' resources



The Moon (and other CB) and its resources are the Common Heritage of Mankind



The exploitation of resources shall be governed by an international regime



The rules of such regime are not set out under the Agreement

# Article 11 of the Moon Agreement

## Article 11, par.5

States Parties to this Agreement hereby **undertake to establish** an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the Moon **as such exploitation is about to become feasible**

## Article 11, par.7

the main purpose of the international regime to be established shall include: a) the orderly and safe development of the natural resources of the Moon; b) the rational management of those resources; c) the expansion of opportunities in the use of those resources; d) **an equitable sharing by all States Parties in the benefits derived from those resources**, whereby the interests and needs of the of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the Moon, shall be given special consideration



# Moon Agreement - Summary

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○ It lays down rather detailed rules governing the recovery and utilization of celestial bodies' resources for scientific purposes.

○ Celestial bodies and their resources as the CHM.

○ The exploitation of resources is to be governed by an international regime (to be established at a later stage).

○ Parties to the Agreement are entitled to determine when the regime should be established and the content of its rules.

Concluding remarks

### International legal framework applicable to space resource activities

- Primary attention has to be paid to the provisions of the Outer Space Treaty
- The Moon Agreement may still give a valid contribution in relation to space resources utilization

## Concluding remarks 2

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- The commercial utilization of space resources is not expressly prohibited under the Outer Space Treaty (also not expressly authorized)
- Any form of space resources utilization shall be consistent with the fundamental principles of international space law

## Concluding remarks 3

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The international recognition of the legality of commercial space resources utilization (and, possibly, the setting up of basic principles related to it) could:

a) Contribute to a clear and predictable legal framework applicable to space resources utilization.

B) Provide support to the legality of domestic space resources utilization laws vis-vis international space law.

Thank you very much for  
your attention