



**PERMANENT MISSION OF THE REPUBLIC OF INDONESIA  
TO THE UNITED NATIONS AND OTHER  
INTERNATIONAL ORGANIZATIONS IN VIENNA**

No.: 435/TI/XI/2024

The Permanent Mission of the Republic of Indonesia to the United Nations and Other International Organizations in Vienna presents its compliments to the United Nations Office for Outer Space Affairs and has the honour to refer to the latter's note verbale No. OOSA/2024/43 dated 22 July 2024 regarding an invitation to provide contributions on elements for an initial draft set of recommended principles for space resource activities.

The Permanent Mission has further the honour to submit the attached Indonesian proposal for an initial draft set of recommended principles for space resource activities. The Permanent Mission furthermore would like to seek the good offices of the United Nations Office for Outer Space Affairs to convey the Indonesian proposal to the Chair and Vice-Chair of the Working Group on Legal Aspects of Space Resource Activities.

The Permanent Mission of the Republic of Indonesia to the United Nations and Other International Organizations in Vienna avails itself of this opportunity to renew to the United Nations Office for Outer Space Affairs the assurances of its highest consideration.

Vienna, 15 November 2024



United Nations Office for Outer Space Affairs  
Vienna

## INDONESIA'S PROPOSAL ON AN INITIAL DRAFT SET OF RECOMMENDED PRINCIPLES FOR SPACE RESOURCES ACTIVITIES

### 1. Regarding the Centrality of the Provisions of the Outer Space Treaty (OST):

- **Foundational Framework Principle:** The 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including Moon and Other Celestial Bodies (OST) is the magna charta of international space law establishing the legal framework to regulate all activities in outer space. It sets out fundamental principles, including inter alia, the principles of non-appropriation and peaceful use of outer space. The OST serves as a reference point and cornerstone for all subsequent agreements and discussions regarding space resource activities.
- **The principle of rule of international law:** Article III of the OST mandates its Member States to conduct space activities in accordance with international law, including the UN Charter. This principle asserts the centrality of international law to govern space activities in order to achieve the objective and purpose of OST. It ensures that all states adhere, in good faith, to a common set of rules which have objectives to unify regulations, promote international cooperation and friendly relations of states and peoples, and provide peace and security while preventing unilateral actions that could lead to conflicts or disputes in relations with space resources. The OST should be respected. New regulations on space resources activities should be in line with the OST, and fill the lacunae of existing international regulations. It is important to first identify the lacunae before determining the upcoming regulations that will be complimentary or supplementary to the existing OST.

It is recommended that a new instrument(s) or regulation(s) should contain a provision(s) stating that this new instrument(s) or regulation(s) should be interpreted and applied consistently with the OST.

### 2. Regarding principles under the Outer Space Treaty

- **Principle of Non-Appropriation:** This principle reinforces that no state can claim ownership over the Moon and other celestial bodies, ensuring that resources can be utilized without claims of sovereignty, by means of use or occupation, or by any other means (Article II Outer Space Treaty). It promotes a shared approach to space exploration, exploitation and use. States are prohibited from making territorial claims in outer space,

ensuring that no single entity can monopolize resources. This principle fosters a collaborative environment for space exploration.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) to affirm the principle of non-appropriation in the OST and regulate about the concept ownership or transfer of ownership in line with the principle of Common Heritage of Mankind.

- **Principle of Peaceful Use of Outer Space:** Article IV of the OST mandates that the Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. This principle aims to ensure that armed force is not used, to prevent the militarization of space, to encourage cooperative endeavors, and to promote mechanisms for peaceful settlement. The establishment of military bases, installations, and fortifications, the testing of any type of weapon, and the conduct of military maneuvers on celestial bodies are prohibited. This principle ensures that space remains a domain for peaceful exploration, exploitation and use and scientific research.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) of peaceful uses of outer space and prohibitions of military bases. It is also recommended to emphasize that the new instrument(s) or regulation(s) should reaffirmed the peaceful nature of space activities.

### 3. Regarding the Relationship with Other Existing UN Treaties on Outer Space:

- **Principle of Complementarity:** In line with Article III of the OST, new regulation(s) or instrument(s) regarding space resource utilization should complement existing UN Treaties on Outer Space, such as the OST and The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies 1979 (Moon Agreement). This principle ensures that any new instrument(s) or regulation(s) are mutually supportive and reinforce the overarching framework of international space law.
- **Principle of Harmonization:** Any efforts should be made to harmonize various international treaties or instruments and avoid conflicts or contradictions between norms. This principle emphasizes the need to create a coherence legal system across complex and different areas and regimes of international laws. Our negotiation should ensure that space resource utilization aligns with other legal principles established in other domains or regimes, such as inter alia, environmental law.
- **Integration Principle:** This principle advocates for the integration of several principles of related fields, such as environmental protection and

human rights, into space law. By doing so, the legal framework governing space resources can address broader ethical and social considerations, ensuring that resource utilization is conducted responsibly.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) on relationship with other international instrument(s).

#### 4. Regarding Questions on Definitions:

- **Clarity and Consistency Principle:** Providing legal clarity is essential for consistent interpretation and application of the new instrument(s) or regulation(s). This principle helps prevent ambiguity and misunderstandings that could arise in legal contexts.

Thus, there should be clear definitions of key terms, inter alia, "space resources", "exploration", "exploitation", "use" and "celestial bodies". Furthermore, the objective and purpose of the new instrument(s) or regulation(s) should also be clear.

- **Precision Principle:** the new instrument(s) or regulation(s) should be precise to minimize ambiguity and conflict. This principle ensures that the language used in the new instrument(s) or regulation(s) is specific enough to guide actions and decisions, facilitating effective enforcement and compliance.
- **Dynamic Definitions Principle:** Allowing for the evolution of definitions is crucial in adapting to technological advancements and changing circumstances in space exploration. This principle recognizes that as our understanding of space and its resources evolves, so too should the legal definitions that govern them.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) of definitions of some objects of regulation.

#### 5. Regarding the Nature and Purpose of Space Resources :

- **Resource Utilization Principle:** Implying to Article I of the OST Space resources should be utilized for the benefit of all humanity, including scientific research, commercial and economic development. This principle emphasizes the importance of using space resources to advance human knowledge and welfare.
- **Sustainability Principle:** The extraction of space resources should be conducted sustainably to preserve celestial environments. This principle encourages responsible practices that minimize environmental impact.
- **Scientific Advancement Principle:** Activities should promote scientific research and knowledge sharing among nations. This principle fosters

collaboration in scientific endeavors, enhancing our understanding of space.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) of sustainability and scientific advancement. It is also recommended that if a conflict arises between the principles of sustainability and scientific advancement within a project or exploration endeavor, it should be thoroughly addressed by a working group or an appropriate international mechanism

## **6. Regarding Research and Innovation:**

- **Principle to support research and innovation:** access to and utilization of space resources, along with the fair and equitable sharing of benefits arising from its utilization, contribute to advancing research and innovation.

It is recommended that the new instrument(s) or instrument(s) or regulation(s) should contain a provision regarding research and innovation, particularly concerning cooperation and transfer of technology with developing countries.

## **7. Regarding the Economic, Environmental, and Equitable Aspects of Space Resource Activities**

- **Common Heritage of Mankind Principle:** Resources in outer space should be considered as part of common heritage of mankind (Article XI of the Moon Agreement 1979). The exploration, exploitation and use of space resources should be carried out for the benefit and in the interests of all states and peoples through equitable access and benefit-sharing. This principle emphasizes that the benefits of space resources should be available to all humanity, not just a select few, without discrimination of any kind, irrespective of the degree of their economic or scientific development. Thus, no one should be left behind on the space resources activities.

It is recommended that the new instrument(s) or regulation(s) should contain a provision(s) of common heritage of mankind, including the concept of ownership or transfer of ownership, in line with the principle of Common Heritage of Mankind.

- **Economic Incentives:** To attract both public and private investment in space resource exploitation, the legal framework must provide clear economic incentives. This includes ensuring that investors can expect returns on their investments, protecting their rights against third-party claims, and clarifying ownership rights over extracted resources. Such incentives are essential for fostering a viable commercial space mining industry.

- **Sustainable Development Principle:** This principle advocates for a balanced approach to economic growth, environmental protection, and social equity in space resource activities. It emphasizes that space resource utilization should contribute to sustainable development goals, ensuring that economic benefits do not come at the expense of environmental degradation and space resources activities should be conducted for the interests of current and future generations.
- **Obligation to Protect the Environment:** According to article IX of the OST, this principle emphasizes the need for strict environmental criteria to govern any exploitative activities in space. Before any mining or resource extraction can occur, it must be authorized and reviewed to ensure compliance with these environmental standards. This is crucial to prevent ecological damage to celestial bodies and to maintain the integrity of space environments.
- **Do No Harm Principle:** this rule is a widely recognized principle of international law whereby a state is duty-bound to prevent, reduce and control the risk of environmental harm. The principle also obliges states to take remedial action , make impact assessment and take all measures to minimize adverse impacts.
- **Precautionary Principle:** The precautionary approach suggests that in the absence of scientific consensus, actions that could harm the environment should be avoided. This approach, stipulated in Article IX of the OST, is particularly relevant in space exploration, where the potential impacts of resource extraction on celestial bodies and the broader space environment are not fully understood.
- **Equitable Distribution Principle:** This principle emphasizes the need for fair distribution of economic benefits derived from space resources, particularly to developing countries. It seeks to address inequalities in access to resources and ensure that all nations can benefit from space exploration. A mandatory disclosure requirement of origin of space resources and its derivatives should also be established.

## 8. Regarding the Protection of Interests of Current and Future Space Actors

- **Equitable Rights Principle:** This principle ensures that both current and future space actors have their rights and interests protected through adaptable regulations. It recognizes the need for a legal framework that accommodates the diverse interests of various stakeholders in space resource activities.

- **Future-Proofing Principle:** Legal frameworks should be designed to adapt to technological advancements and emerging challenges in space resource utilization. This principle emphasizes the importance of flexibility in regulations to accommodate innovations and changes in the space sector

## 9. Regarding Ethical and Inter-generational Aspects

- **Inter-generational Equity Principle:** This principle asserts that actions taken today should not compromise the rights and opportunities of future generations. It emphasizes the need for sustainable practices in space resource utilization to ensure that future generations can also benefit from these resources.
- **Ethical Stewardship Principle:** Promoting ethical considerations in space exploration involves recognizing the moral responsibilities of current space actors to protect celestial environments and respect all forms of life. This principle encourages responsible behavior in the utilization of space resources.

## 10. International Coordination and Consultation Measures :

- **Cooperation Principle:** Referring to article III of the OST and 1996 UN Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries (Space Benefit Declaration), the text of the instrument should regulate the obligation to cooperate, the areas and scope of cooperation, special needs of developing countries and mechanism to enhance the cooperation. The exploration, exploitation and use of space resources should always be in corresponding with the interests of all member states. Therefore, the new instrument(s) or regulation(s) should provide certain regulations for the interests of developing countries such as capacity building and transfer of technology. On the other hand, there should be cooperation with other international organizations, including the United Nations eg the Secretary General as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities.
- **Principle of full participation:** Each member state should develop and carry out scientific research on outer space resources provided by other state with the full participation. It is recommended that there should be Technical and Scientific Cooperation under the STSC, including to further discuss standard and guidelines regarding environmental assessment.

- **Information Sharing Principle:** States should share information about space activities to promote transparency and trust. This principle encourages open communication and collaboration. There should be a certain open sources information regarding space resources activities.
- **International Authority for Resource Management:** The establishment of an international body to manage and regulate the exploitation of extraterrestrial resources is proposed. This authority would be responsible for granting licenses and overseeing compliance with international laws including environmental protection oversight. The challenge lies in gaining acceptance from states, as the idea of international governance has diminished in appeal. However, similar frameworks exist for managing resources in international waters and other global commons, suggesting a precedent for such an authority in space.

## 11. Regarding Licensing Authority Mechanisms

- **International Licensing Authority Principle:** An international body may be established to oversee licensing and ensure compliance with global standards. This principle promotes consistency and fairness in the regulation of space activities. Additionally, Clearing-House-Mechanism of source of space resources may also be established.
- **Licensing System for Resource Exploitation:** A structured licensing system is essential for regulating the extraction of extraterrestrial resources. Licenses would grant temporary rights to mine and utilize resources, but they would not confer permanent ownership of the mining site. This ensures that once a license expires, the site can be made available for other potential users, promoting fair access to resources.
- **National Oversight Principle:** States should maintain oversight of their nationals' activities in space through licensing mechanisms. This principle promotes accountability and responsible behavior.

## 12. Regarding the Role of the Private Sector and Its Supervision

- **Liability Principle:** Article VI and VII of the OST establish clear foundation of liability frameworks for private entities engaged in space resource activities ensures accountability for environmental and social impacts. This principle emphasizes the need for mechanisms to address potential harm caused by private sector operations. Existing international treaties should also be applied.
- **Principle of state responsibility:** According to article VI of the OST, states should bear international responsibility of space resource activities, including the moon and other celestial bodies, whether such activities are



carried on by governmental agencies or by non-governmental entities under their jurisdiction or control, and for assuring that national activities are carried out in conformity with international law.

- **Regulatory Oversight Principle:** Implementing guidelines for private sector involvement in space resource activities ensures that private entities operate within a framework of regulatory oversight. This principle emphasizes the need for accountability and compliance with international norms.
- **Corporate Responsibility Principle:** Encouraging private entities to adopt responsible practices aligns their operations with international standards. This principle promotes ethical behavior and social responsibility in the conduct of space resource activities.

### 13. Regarding Sharing of Information

- **Transparency Principle:** States and private entities should share information about space activities to promote transparency. This principle fosters trust and collaboration among stakeholders.
- **Data Sharing Principle:** A framework for sharing scientific and technical data related to space resources should be established. This principle encourages knowledge sharing and collaboration in research.
- **Public Access Principle:** Information regarding space resource activities should be accessible to the public to foster trust and engagement (open source information). This principle promotes transparency and accountability.

### 14. Possible Aspects Related to Investments and International Trade

- **Facilitative Investment Principle:** Creating principles that facilitate international investments in space resource activities aligns with sustainable development goals. This principle emphasizes the need for a supportive legal environment that encourages investment while ensuring compliance with ethical standards.
- **Fair Trade Principle:** Ensuring that trade in space resources is conducted fairly promotes equitable economic relationships among nations. This principle emphasizes the importance of transparency and fairness in commercial transactions related to space resources.
- **Investment Protection Principle:** Establishing legal protections for investors in space resource activities encourages investment while ensuring compliance with international standards. This principle emphasizes the need for a stable and predictable legal environment for investment in space.

- **Dispute Settlement Mechanism:** To ensure the enforcement of rules and to resolve conflicts arising from resource exploitation, a robust dispute settlement mechanism is necessary. This would help maintain order and fairness in the international legal regime governing space resources, providing a means for parties to address grievances and disputes.

#### 15. Regarding Aspects of Benefit-Sharing

- **Equitable Benefit-Sharing Principle:** Benefits derived from space resources should be shared equitably among all nations. This principle promotes fairness and cooperation in the utilization of space resources.
- **Benefit Sharing for Humanity:** There should be mechanisms in place to ensure that the benefits of such activities are distributed in a way that is advantageous to all of humanity. This principle aligns with the notion that outer space and its resources belong to all, and that exploitation should not solely benefit a select few. Each state should take legislative, administrative or policy measures, through a certain financial mechanism with an aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of space resources. Such sharing should be upon mutually agreed terms.

#### 16. Regarding Interests of Developing Countries

- **Capacity-Building Principle:** Developing countries should receive support to build capacity for engaging in space activities (Space Benefit Declaration). This principle promotes equity and inclusivity in space exploration.
- **Equitable and Inclusive Participation Principle :** Developing countries should have equitable opportunities to participate in space resource activities. This principle ensures that all nations can benefit from space exploration. The role of woman should also be promoted and included.
- **Technology Transfer Principle:** Mechanisms should be established to facilitate the transfer of technology to developing countries for space exploration and resource utilization, in line with the Space Benefit Declaration.

It is recommended that a new instrument(s) or regulation(s) should include a provision on equitable and inclusive participation, capacity building and transfer of technology.

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