

CIVIL SOCIETY PARTICIPATION IN SPACE EXPLORATION POLICY: AN NGO'S EXPERIENCE WITH THE HAGUE INTERNATIONAL SPACE RESOURCES GOVERNANCE WORKING GROUP

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• Secure World Foundation *is a private operating foundation* that promotes cooperative solutions for space sustainability



Surveillance Technologies Conference

The Foundation acts as a research body, convener and facilitator to examine key space policy topics often through partnership.

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Rapid expansion in the number & types of commercial space applications is challenging existing policy context for space activities

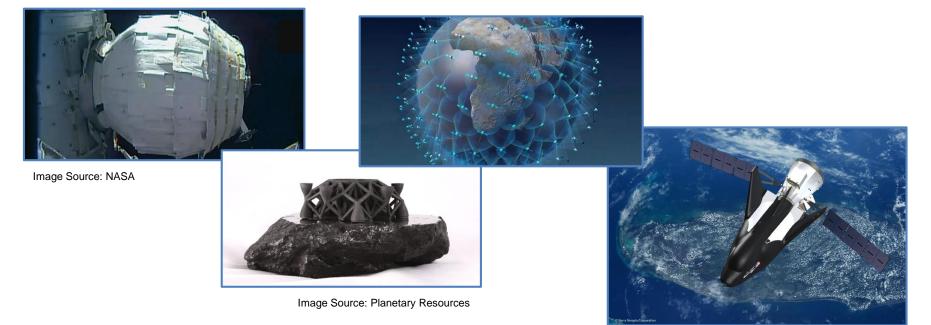


Image Source: UNOOSA / Sierra Nevada Corp

Governmental policy and regulation must be developed to support these activities, in manner that is consistent with international obligations, and that provides for benefit.

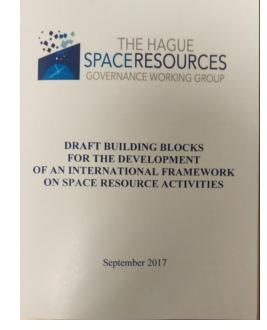
An Example – Track 1.5 Process

Promoting Cooperative Solutions for Space Sustainability

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- The Hague Space Resources Governance Working Group aims to build consensus on regulatory "concepts needed to enable, support and co-ordinate the use of space resources and be acceptable for spacefaring nations and other interested states"
- Industry, government, and civil society participation from across the globe
- Secure World Foundation is a sponsor of the Group



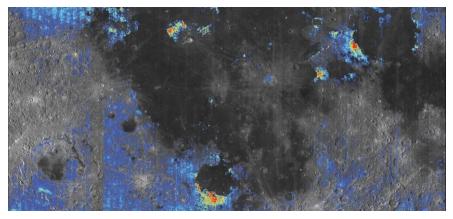
Coordination of principles at national and international level will help States establish the conditions under which socio-economic benefit might result from space resources development



Space Resources – Opportunity and Need

Promoting Cooperative Solutions for Space Sustainability

- Living in space for long periods of time will require making use of available resources
- Both the Moon and asteroids contain useable deposits of water and other natural resources which can support exploration activities
- Water can be processed into rocket fuel while other resources can be used to support other infrastructure development
- Fuel sourced from in-space resources offers the potential to lower the cost of in-space applications and enable broader and more sustained exploration activities



Space resource utilization is a gateway capability for human space exploration and a sustained human presence beyond low Earth orbit



- National and international bodies are actively considering policy and legal approaches to space resources
- There is uncertainty in the treaty regime Outer Space Treaty regarding space resources utilization
- Both governments and private enterprise are facing a condition of uncertainty risk – in defining resources activities
- There is interest in working jointly to reduce that uncertainty to define market conditions and respect international obligations

Developing Countries & Benefits from Space Resources

Impact on Space Environment

Timing of Legal Regime Relative to Knowledge of Industry

United Nations / Jordan Workshop: Global Partnership in Space Exploration and Innovation Amman, Jordan March 25-28, 2019 Meanings of Exploration, Exploitation & Use

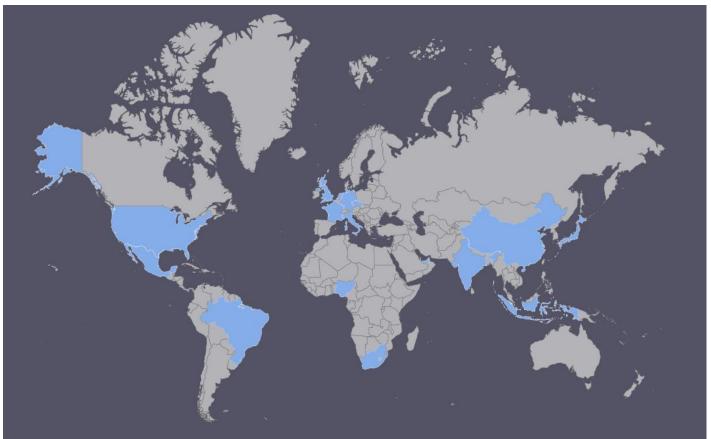
Role of Private Sector Capabilities in Gov't Exploration Plans

> Safety of Space Resources Activities



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Multidisciplinary Multisectoral Multinational



Countries with members of the Hague Working Group

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The Hague International Space Resources Governance Working Group

Legal, policy, and diplomatic expertise Geographic and sector diversity

Technical Panel

Engineering, scientific, business expertise – both from space sector and outside it

Supporting and contextual analysis

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Socioeconomic Panel

Economics, environment, anthropology, development expertise– both from space sector and outside it

Supporting and contextual analysis

Lessons from Hague Group Process

- Builds relationships and develops understanding
- Interdisciplinary discussions lead to more informed outcomes
- Adaptive governance

Case example – topics under the Working Group's Socioeconomic Panel to enhance benefit-sharing from space resources development

- Relevance of the Concept of "Social License to Operate"
- Cooperation Models
- Approaches for Data Sharing
- Capacity Building Models
- Relevance of Principles for Responsible Investment (PRI)



A Stable, Predictable, and Sustainable Operating Environment in Space

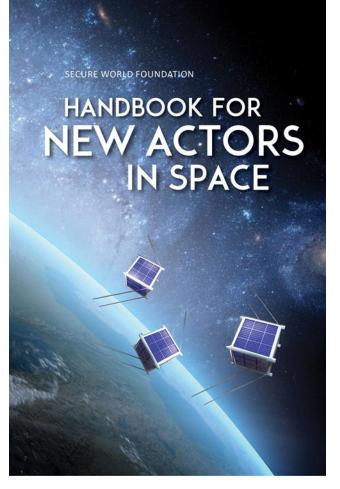
How can governments and the private sector work together to ensure sustainability of the domain?

Issues/Topics

- Policy context for identifying and obtaining benefit
- Regulatory authority, structure & process
- Space traffic management
- Norms of behavior
- New actors & best practices
- Government role as both customer & operator

Example Efforts Action Team on Exploration and Innovation Agenda-setting for future multilateral discussions The Hague Space Resources Governance Working Group • Multilateral, multi-sectoral effort to define policy and legal "building blocks" SWF Handbook for New Actors in Space Overview of fundamental principles, norms, and best

practices for safe, predictable, and responsible activities in space





Conclusions

- Broadening and diversifying set of private sector space activities.
- Developing effective legal and policy regimes for these activities requires the coordination of multiple different stakeholder groups and the identification of enhanced mechanisms for improving understanding between the private sector and the multilateral space governance fora.
- As space becomes an increasingly commercial domain, national governments are using policy and financial tools to competitively position their emerging space sectors (including space resources) for growth.
- Coordination of basic legal and policy principles, such as those represented by the Hague Group's Building Blocks, can serve to reduce instability and uncertainties related to regulatory fragmentation across different jurisdictions.
- Also provides a better link between private sector activities and governmental exploration programs.

The Hague Working Group process represents an example model for open and inclusive partnerships in support of legal and regulatory development for exploration capabilities