



## **Background Paper**

Committee: UNOOSA

Topic B: The management and restriction of the use of outer space resources

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As humanity advances into the arduous journey of exploration into outer space, many outer space resources are now in an uncertain position of availability. Potentially, massive businesses such as asteroid mining are being labeled as "the new gold rush." Some experts argue that an asteroid could be valued within the vicinity of \$700 quintillion. With immeasurable amounts of money that could be at play in the next century, many issues have raised concerns for government officials around the world. These resources are only truly accessible for enormous multimillion dollar companies, which will most likely corner the market within the earliest stages of any outer space industry. The Outer Space Treaty of 1967 established important guidelines regarding travel and exploration of outer space when the latter was in its infant stages. Arguably, the most important point was the commitment to explore outer space for the benefit of humanity as a whole, with peace as a priority. Although many more treaties have been established and negotiated, the resource availability has not been considered a profitable business until recently. This is thanks to private companies like Planetoid Mines Company, or agencies like NASA pushing the idea that space travel is easier and more attainable than ever. The uncertainty of the policies regarding the attaining of resources in outer space is an issue that will be discussed in detail in the United Nations Office for Outer Space Affairs.

As previously mentioned, there have been agreements discussed between nations to address the initial climate regarding space exploration (the 1967 Outer Space Treaty, the 1968 Rescue Agreement, the 1972 Liability Convention, the 1975 Registration Convention, and the 1979 Moon Agreement). Such treaties served as groundwork for the future development of space activities. Given the technological development since then, the search for valuable resources in outer space looms nearer and nearer. There are benefits to acquiring outer space resources, because the diminishing of Earth's own resources could prove to be a necessary cause for the finding and extraction of vital assets for humanity's own survival. It has been theorized that water and materials that could be used for fuel and energy are potentially located in large quantities within extra-terrestrial bodies. As a result of technological advancements, that has been achieved, and they can be reached

and hauled back to Earth successfully. However, this brings into question of who will truly benefit from this extraction, the humans who receive these resources, or the companies that acquire and sell them? Many materials deemed valuable on Earth are thought to originate in large quantities in celestial bodies. If any party is successful in extracting tremendous amounts of gold, platinum or other precious minerals, the effects could have a ravishing impact on the economy, because it could severely plummet the overall worth of any of these elements on Earth. A major development was presented when the US Commercial Space Launch Competitiveness of 2015 essentially legalized space mining. The act stated that any citizen was entitled to any space resources obtained, in effect, establishing a "finders, keepers" policy. Luxembourg opened a similar policy in 2017, with Japan, UAE and Portugal soon following. It is clear that many countries see the profit margin in space mining, and the idealistic goals of the 1967 Outer Space Treaty seems to have lost relevance in the recent, profit-orientated climate today.

The obtaining of space resources has established itself as an upcoming, profitable and uncertain development in human space exploration. Issues regarding the fair distribution of resources, the impact on the economy, and the legitimacy behind this business call into question what kind of sovereignty humanity has in outer space. Although advancements in technology and vigorous research has proven that, given the budget, these million dollar operations are possible, there should be a more solid framework established that addresses these issues. These regulations must reassure the well-being of humanity as a whole.

## References:

\*"Resources in Space". Luxembourg Space Agency, Space Resources.Lu, 29 September

2019, https://space-agency.public.lu/en/space-resources/ressources-in-space.html#

\*\*Pandaya, Jayshree. "The Race to Mine Space". Forbes, Forbes Media LLC, May 13, 2019,

https://www.forbes.com/sites/cognitiveworld/2019/05/13/the-race-to-mine-space/#1655c7241a70

\*\*\* Harris, Philip R. "Space Law and Space Resources". National Space Society, 2018,

https://space.nss.org/settlement/nasa/spaceresvol4/spacelaw.html

https://space-agency.public.lu/en/space-resources.html	
****Casey, JP. "The history of space mining: five key events for mineral exploration in space".	
Mining Technology, Verdict Media Limited, 23 October, 20 https://www.mining-technology.com/digital-disruption/history-of-space-mining/	019,
*****Mallick, Senjuti. "If space is 'the province of mankind', who owns its resources?".	
Observer Research Foundation, ORF, January 24, 2019, https://www.orfonline.org/research/if-space-is-the-province-of-mankind-who-owns-its-resources-47561/	
David, Leonard. "The US Geological Survey Is Getting Serious About Space Resources and	
Mining". Space.com, Future US, Inc, 4 September, 20 https://www.space.com/41707-space-mining-usgs-resource-survey.html	018.
* Links useful in reference to outer space resource research in Luxembourg, a prestigious country in that are	ea
** General information on value and need for outer space resources	
*** Lists many useful international agreements and ratifications referring to space exploration	
**** Context of more recent advancements into space mining by major countries in the field	
***** Useful website with broad insight into the overall development of technology and policies that will ai the acquirement of space resources, also listing points for and against space mining	id in

\*"Space Resources". Luxembourg Space Agency, Space Resources.Lu, 21 August, 2019,