



# Study guide

*UNCOPUOS*

United Nations Committee on the Peaceful Uses of Outer Space

## Agenda

Discussing the risks, consequences and prospects of interstellar colonisation.



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# A note from the chairs

Dear delegates,

Humanity's insatiable greed will soon render our planet bereft of essential resources. Solutions must be found. Our planet may very well be beyond saving. In this situation, humanity's only option is to voyage into the vast unknown and explore the realm of interstellar exploration. Humanity must leave the Earth and settle on strange stars. We must not let the light of our human race die down but rather resist the apocalypse and find ourselves a new home.

The topic of interstellar colonisation is rife with controversy. Nations around the world clash in their consideration of the situation. Doubts have been raised extensively about the ethicality, risks and feasibility of interstellar exploration and eventual colonisation. In this committee, delegates must analyse the issue thoroughly and discuss the creation of an opulent solution, which may result in a human colony across the far reaches of the galaxy.

Decisions taken by COPUOS and its subcommittees are reached by absolute consensus of all the member States. Unlike other UN bodies, there is no voting; matters are discussed until consensus is reached, or if no consensus can be reached, the discussion is either suspended or the matter dropped. This is significant because it means that the decisions of COPUOS are unanimous and therefore politically binding on all COPUOS member States

Yours sincerely,

Ved Khemani (Director) and Shaurya Savant (Assistant director)



# Introduction to the Committee

The Earth's orbital space environment constitutes a finite resource that is being used by an increasing number of governmental and non-governmental entities. While the increasing use of space holds great promise for humanity, it also raises several concerns. The proliferation of space debris, the increasing complexity of space operations, the emergence of large constellations of satellites and the increased risks of collision and interference with the operation of spacecraft are raising acute concerns about the long-term sustainability of space activities. In addition, the proliferation of military counter-space capabilities is also a cause for concern. Debris-producing anti-satellite tests in orbit, or an outright conflict in space, could result in widespread satellite service disruption with wide-ranging impacts that would not be contained geographically or confined to the security or economic sectors alone. Addressing these developments and risks requires international cooperation by States and the international space community to avoid harm to the space environment and the safety of space operations. Such international cooperation can be greatly strengthened by developing internationally agreed and accepted norms, standards and behaviours that reduce the risks of accidents, misperceptions, misunderstandings and mistrust. In this paper, we will focus on the efforts of the United Nations to address these challenges at an intergovernmental level by developing a set of internationally agreed guidelines.

Since the earliest days of the Space Age, the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) has been the principal intergovernmental and private forum for broad dialogue on international cooperation in the exploration and peaceful uses of outer space and the progressive development and codification of laws and principles governing activities in outer space. It is a standing committee of the UN, established in 1959 by 24 UN member States and given its mandate in UN General Assembly resolution 1472 (XIV). The



Committee currently comprises 95 member States and many permanent observers that enrich its work. The technical work of COPUOS is carried out by two subcommittees, the Legal Subcommittee (LSC) and the Scientific and Technical Subcommittee (STSC).



# Introduction to the agenda

Society is making the universe more human. For a considerable amount of time, satellites have played a crucial role in the transmission of information, monitoring, and combat operations. But as these instances show, the powerful are the ones who stand to gain most from the humanisation of the universe. Among them are significant military and commercial establishments. Moreover, the impending commercialisation and colonisation of space are going to further serve the interests of the powerful, notably the big aerospace industries. It's time to think about other approaches to cosmic humanisation. These would improve the chances for the socially marginalised. They also enable us to have a deeper comprehension of the universe and our place in it.

However, colonising space also creates risks — risks whose potential harm could easily overshadow all the benefits of humankind's long-term future. In this article, I present a preliminary overview of some major risks of space colonisation:

Prioritisation risks, aberration risks, and conflict risks. Each of these risk types contains risks that can create enormous disvalue; in some cases orders of magnitude more disvalue than all the potential positive value humankind could have. From a (weakly) negative, suffering-focused utilitarian view, we therefore must mitigate space colonisation-related risks and make space colonisation as safe as possible. To do so, we need to start working on real-world space colonisation governance. Given the near-total lack of progress in the domain of space governance in recent decades, however, it is uncertain whether meaningful space colonisation governance can be established soon, and before it is too late.



# History and previous ideologies about space colonisation

The history of the idea of space colonisation extends back into myths and legends of ancient times, but the first account of an actual space colony appeared in 1869 when Edward Everett Hale's novel, *Brick Moon*, described how a colony in space happened by accident. The companion idea of a nuclear-propelled space ark carrying civilization from a dying solar system toward another star for a new beginning was envisioned in 1918 by Robert Goddard. In 1948 Fritz Zwicky suggested the use of extraterrestrial resources to reconstruct the entire universe, beginning with making the planets, satellites, and asteroids habitable by changing them intrinsically and changing their positions relative to the Sun. A scheme to make Venus habitable by injecting colonies of algae to reduce atmospheric  $CO_2$  concentration was proposed in 1961 by Carl Sagan. On July 20, 1969 Astronauts Neil A. Armstrong and Edwin E. Aldrin, Jr., walked on the Moon. In the context of history, just reviewing the "... one small step for a man, one giant leap for mankind" appears quite natural and unsurprising. And if the first step is to be followed by others, space colonisation may well be the succeeding step.



# Current efforts made towards interstellar colonisation

Several businesses and organisations are already striving to make space colonisation a reality despite these obstacles. Elon Musk started SpaceX, a private space exploration firm, and they have one of the most ambitious objectives. SpaceX wants to establish a self-sufficient metropolis on Mars that can house up to a million people.

To do this, SpaceX is creating a range of technologies that will lower the cost and increase the accessibility of space travel and colonisation. This includes proposals for a self-sustaining community on Mars as well as reusable rockets that can significantly lower the cost of space travel. The business intends to launch an unmanned expedition to Mars as early as 2022 and has already completed successful test flights of its reusable rockets.

In addition, NASA is developing the technology required for space colonisation. By 2024, the CIA hopes to return humans to the moon with the Artemis mission, and in the years that follow, they hope to create a permanent lunar presence. Building a long-lasting outpost on the moon that can act as a springboard for more research and colonisation is the program's main objective.

A variety of smaller-scale projects are also being undertaken in addition to these bigger ones to increase accessibility to space colonisation. These include for-profit businesses like The Living, an architectural firm creating eco-friendly living environments for use in space, and Mars One, a company dedicated to establishing a permanent community on Mars utilising current technology.





# The Risks of Interstellar Colonisation

For long-term survival, space colonisation is humanity's greatest chance. The anticipated moral benefit of space colonisation is therefore enormous. But colonising space also entails dangers, risks whose possible negative effects may easily outweigh all the long-term advantages for humanity. The three main hazards associated with space colonisation in this article: are conflict, aberration, and prioritisation concerns.

There are hazards associated with each of these risk categories that have the potential to produce massive disvalue—in many situations, orders of magnitude more disvalue than all the possible benefits humanity may experience. Thus, from a (weakly) negative, suffering-focused utilitarian perspective, we ought to reduce the hazards associated with space colonisation and make it as safe as feasible. To do this, we must begin developing a practical space colonisation government. It's unclear, though, if significant space colonisation governance can be formed soon and before it's too late, given the nearly complete absence of advancement in the field in recent decades.



# Concluding Remarks

The United Nations Committee On Peaceful Uses of Outer Space is constantly evolving and adopting new methodologies and ideals depending on the need of the hour. Space colonisation is a pressing issue that offers priceless possibilities along with devastating consequences and implications which may alter the course of history, humankind and the universe as a whole. The agenda of the committee is a perplexing affair that will most certainly challenge the representatives of all the space organisations across the globe and set the ground for a riveting debate.

One must consider the prospects and opportunities which present themselves when humanity voyages into the great abyss. Arguments will be made about the statement “humanity was born on Earth, but it was never meant to die here.” However, arguments against the statement will always be prevalent. Our planet is our most precious resource. Rather than venturing into the unknown and developing extensive space programs, protecting the planet should be the priority. All the risks, prospects and possibilities must be considered before the members of this committee create a reasonable resolution that appeals to a majority of the members of the committee.



# Questions to answer

1. What are the current technological limitations in achieving interstellar travel and colonization?
2. How can the risks of long-duration space travel, such as cosmic radiation, microgravity, and life support systems, be mitigated?
3. What are the potential health risks for astronauts and future colonists during interstellar journeys and upon arrival at a new planet?
4. How can we ensure the safety of space travellers in uncharted environments?
5. What are the potential consequences of introducing Earth-based organisms into extraterrestrial ecosystems?
6. How might interstellar colonization impact the environment of the destination planet or celestial body?
7. What ethical concerns arise from colonizing another planet or celestial body?
8. How should we address the potential for exploitation of resources or indigenous life forms on other planets?
9. How could interstellar colonization affect global socioeconomic dynamics on Earth?
10. What impact might this have on international relations and the distribution of power and resources?
11. What legal frameworks should govern interstellar colonization and the use of space resources?
12. How should we approach the potential for conflict over territorial claims in space?
13. How can international cooperation be fostered to ensure that interstellar colonization is a collective endeavour rather than a competitive race?
14. What strategies should be implemented to ensure the sustainability of interstellar colonies?
15. How can advancements in space technology benefit other fields, such as medicine, energy, and environmental management?



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