



# **Sreenidhi Model**

## **United Nations 2015**

### **Special Political and Decolonization**

### **Committee**

### **Study Guide**



**Chair:** Soumith Kasetty

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## Topic

Breaking the Barriers of Human Habitat and extending it to space.

## Introduction

“A billion years ago there was no life on land. In a phenomenal development, by 400 million years ago land life was well established. We are at the very beginning of a similar, perhaps even more important, development. Today Earth teems with life, but as far as we know, in the vast reaches of space there are only a handful of astronauts, a few plants and animals, and some bacteria and fungi; mostly on the International Space Station. We can change that. In the 1970's Princeton physicist Gerard O'Neill, with the help of NASA Ames Research Center and Stanford University, discovered that we can build gigantic spaceships, big enough to live in. These free-space settlements could be wonderful places to live; endowed with weightless recreation, fantastic views, freedom, elbow-room in spades, and great wealth. In time, we may see millions of free-space settlements in our solar system alone.”<sup>1</sup>

## ABOUT SPECPOL<sup>2</sup>

The Special Political and Decolonization Committee is the Fourth Committee of the General Assembly. SPECPOL deals with a variety of subjects which include those related to decolonization, Palestinian refugees and human rights, peacekeeping, mine action, outer space, public information, atomic radiation and University for Peace.

## Committee on the Peaceful Uses of Outer Space<sup>3</sup>

The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the General

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<sup>1</sup> <http://settlement.arc.nasa.gov/>

<sup>2</sup> <http://www.un.org/en/ga/fourth/>

<sup>3</sup> <http://www.unoosa.org/oosa/en/ourwork/copuos/index.html>

Assembly in 1959 to govern the exploration and use of space for the benefit of all humanity: for peace, security and development. The Committee was tasked with reviewing international cooperation in peaceful uses of outer space, studying space-related activities that could be undertaken by the United Nations, encouraging space research programmes, and studying legal problems arising from the exploration of outer space.

The Committee was instrumental in the creation of the five treaties and five principles of outer space. International cooperation in space exploration and the use of space technology applications to meet global development goals are discussed in the Committee every year. Owing to rapid advances in space technology, the space agenda is constantly evolving. The Committee therefore provides a unique platform at the global level to monitor and discuss these developments.

The Committee has two subsidiary bodies: the Scientific and Technical Subcommittee, and the Legal Subcommittee, both established in 1961. The Committee reports to the Fourth Committee of the General Assembly, which adopts an annual resolution on international cooperation in the peaceful uses of outer space.

## **History<sup>4</sup>**

The United Nations has been involved in space activities ever since the very beginning of the space age. Ever since the first human-made satellite orbited the Earth in 1957, the UN has been committed to space being used for peaceful purposes. This launch, as part of International Geophysical Year, marked the dawn of the space age, the first use of satellite technology for the advancement of science, and the beginning of human efforts to ensure the peaceful uses of outer space. This was followed in the 1960s by a rapid expansion in the exploration of space, starting in April 1961 when Yuri Gagarin became the first human being to orbit the Earth, and culminating in Neil Armstrong's 'giant leap for mankind', in July 1969.

In the midst of the Cold War, there was a growing concern in the international community that space might become yet another field for intense rivalries between the superpowers or would be left for exploitation by a limited number of countries with the necessary resources.

In 1958, shortly after the launching of the first artificial satellite, the General Assembly in resolution 1348 (XIII) established an ad hoc Committee on the Peaceful Uses of Outer Space (COPUOS), composed of 18 members, to consider the activities and resources of the United Nations, the specialized agencies and other international bodies relating to the peaceful uses of outer space, organizational arrangements to facilitate international cooperation in this field within the framework of the United Nations and legal problems which might arise in programmes to explore outer space.

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<sup>4</sup> <http://www.unoosa.org/oosa/en/ourwork/copuos/history.html>

In 1959, the General Assembly established COPUOS as a permanent body, which had 24 members at the time, and reaffirmed its mandate in resolution 1472 (XIV). Since then, COPUOS has been serving as a focal point for international cooperation in the peaceful exploration and use of outer space, maintaining close contacts with governmental and non-governmental organizations concerned with outer space activities, providing for exchange of information relating to outer space activities and assisting in the study of measures for the promotion of international cooperation in those activities.

The work of COPUOS has been assisted by the two subcommittees, the Scientific and Technical Subcommittee and the Legal Subcommittee. The complex issues which have arisen alongside the development of space technology are the main concern of the two COPUOS Subcommittees, which met for the first time in Geneva in 1962 and then regularly each year.

Members of COPUOS are States and since 1959, the membership of COPUOS has grown continuously, currently it has 77 members, which makes COPUOS one of the largest Committees in the United Nations. In addition to States a number of international organizations, including both intergovernmental and non-governmental organizations, have observer status with COPUOS and its Subcommittees.

UNOOSA provides the Secretariat services to COPUOS and its two Subcommittees, which continue to serve as a unique platform for maintaining outer space for peaceful purposes at the international level.

### **Members of the Committee on the Peaceful Uses of Outer Space**

In 1959, the United Nations General Assembly established the permanent Committee on the Peaceful Uses of Outer Space with 24 members. Since then, it has grown to 77 members - one of the largest Committees in the United Nations. In addition to States, a number of international organizations, including both intergovernmental and non-governmental organizations, have observer status with COPUOS and its Subcommittees.

#### **The 77 Members**

Albania, Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Belgium, Belarus, Benin, Bolivia, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Czech Republic, Ecuador, Egypt, France, Hungary, Germany, Ghana, Greece, India, Indonesia, Iran, Iraq, Italy, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, the Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Ukraine, Uruguay, Venezuela & Vietnam

## **Major Space Agencies among Member States**

**United States of America:** The United States' space program National Aeronautics and Space Administration (NASA) is one of the most widely recognized organizations worldwide because of its technological advancements and innovations of outer space exploration. Some notable achievements that have earned NASA its recognition are the memorable missions - Pioneer, Voyager, WMAP, and Spitzer are a few space crafts sent into outer space that have had high success in its mission. NASA orchestrated the first mission to place a man on the moon. In addition to NASA, the US has many other agencies that deal with space issues such as the Department of Defense (United States Strategic Command and the Advanced Research Projects Agency) and the Department of Transportation (Federal Aviation Administration and National Science Foundation)

**Russia:** The Soviet Union had a robust space program. After the collapse of the Soviet Union in 1991, the Russian Federation assumed most of the space program assets. The Russian Federal Space Agency conducts space science program and general aerospace research. Founded on February 25, 1992, the Russian program faced significant financial problems as the Russian economy was weakened because of the Soviet collapse. But the agency has rebounded, starting in 2005. Today, it is prospering and developing new projects. One of the tasks it has been working on is the Prospective Piloted Transportation System, which is a reusable capsule controlled by a pilot.

**China:** The China National Space Administration (CNSA) is China's national space agency responsible for signing governmental agreements in the space area on behalf of organizations, inter-governmental scientific and technical exchanges; and also being in charge of the enforcement of national space policies and managing the national space science, technology and industry. China has come under significant criticism for its 2007 test of a medium-range ground based missile to destroy an aging weather satellite. China maintains, however, that it adheres to the Outer Space Treaty and is committed to the peaceful use of space.

**India:** The Indian Space Research Organization is considered to be one of the many large space agencies in the world. It was created in 1969 and built India's first satellite, Aryabhata. The founding leader of the Indian space program, Dr. Vikram Sarabhai, proclaimed the vision of the program was not to compete with economically developed countries but rather to inspire the Indian nation. The Mars Orbiter Mission (MOM), informally known as 'Mangalayaan' was launched into Earth orbit on 5 November 2013 by the Indian Space Research Organisation (ISRO) and has entered Mars orbit on 24

September 2014. India is the first country to enter Mars orbit in first attempt. It was completed at a record cost of \$74 million.

**Japan:** The Japan Aerospace Exploration Agency (JAXA) was formed on October 1, 2003, combining three existing space agencies in Japan. Its technological advancements have allowed it to launch satellites outside of Earth's atmosphere. It also undertakes many other space missions, and has plans for asteroid exploration and a manned exploration to the moon. A developing project is IKAROS (Interplanetary Kite-craft Accelerated by Radiation Of the Sun), a small size powered-solar sail experimental spacecraft. Future missions will use solar sail for Jupiter and Trojan Asteroids exploration.

**Europe:** The European Space Agency (ESA) started as an intergovernmental organization in 1975. Its headquarters is located in Paris, France. ESA is responsible for setting a unified space and related industrial policy, recommending space objectives to the member states, and integrating national programs like satellite development, into the European program as much as possible.

## Space Colonization<sup>5</sup>

One of the major environmental concerns of our time is the increasing consumption of Earth's resources to sustain our way of life. As more and more nations make the climb up from agricultural to industrial nations, their standard of life will improve; which will mean that more and more people will be competing for the same resources. While NASA spin offs and other inventions can allow us to be more thrifty with Earth's resources, we nevertheless must come to grips with the problem that humanity is currently limited to one planet.

Space colonies could be the answer to this problem, if we can solve the medical problems posed by microgravity (also called weightlessness) and the high levels of radiation to which the astronauts would be exposed after leaving the protection of the Earth's atmosphere. The colonists would mine the Moon and the minor planets and build beamed power satellites that would supplement or even replace power plants on the Earth. The colonists could also take advantage of the plentiful raw materials, unlimited solar power, vacuum, and microgravity in other ways to create products that we cannot while inside the cocoon of Earth's atmosphere and gravity. In addition to potentially replacing our current Earth-polluting industries, these colonies may also help our environment in other ways. Since the colonists would inhabit completely isolated manmade environments, they would refine our knowledge of the Earth's ecology.

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<sup>5</sup> <http://www.hq.nasa.gov/office/hqlibrary/pathfinders/colony.htm>

This vision, which was purely science fiction for years and years, caught the imagination of the public in the Seventies, leading to the establishment of the organization known today as the National Space Society.

## **Space Law**

Space law can be described as the body of law governing space-related activities. Space law, much like general international law, comprises a variety of international agreements, treaties, conventions, and United Nations General Assembly resolutions as well as rules and regulations of international organizations.

The term "space law" is most often associated with the rules, principles and standards of international law appearing in the five international treaties and five sets of principles governing outer space which have been developed under the auspices of the United Nations. In addition to these international instruments, many states have national legislation governing space-related activities.

Space law addresses a variety of matters, such as, for example, the preservation of the space and Earth environment, liability for damages caused by space objects, the settlement of disputes, the rescue of astronauts, the sharing of information about potential dangers in outer space, the use of space-related technologies, and international cooperation. A number of fundamental principles guide the conduct of space activities, including the notion of space as the province of all humankind, the freedom of exploration and use of outer space by all states without discrimination, and the principle of non-appropriation of outer space.

The Office provides information and advice, upon request, to governments, non-governmental organizations and the general public on space law in order to promote understanding, acceptance and implementation of the international space law agreements concluded under United Nations auspices.

### **The Outer Space Treaty**

The 1967 Outer Space Treaty bans the stationing of weapons of mass destruction (WMD) in outer space, prohibits military activities on celestial bodies, and details legally binding rules governing the peaceful exploration and use of space. Ninety-nine countries are states-parties to the treaty, while another 26 have signed it but have not yet completed ratification.

Fueled by concerns about U.S. missile defense plans and space policy, many countries support negotiation of additional outer space agreements. For instance, China and Russia are urging the 65-member UN Conference on Disarmament in Geneva to negotiate a treaty to prevent an arms race in outer space. In February 2008, the two countries submitted a draft treaty text to the

conference, which has failed for several years to achieve the necessary consensus to start negotiations on an outer space treaty. The United States asserts that such an accord would be too difficult to verify and that no additional outer space treaties are needed because there is currently no arms race in outer space.

### **Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies<sup>6</sup>**

The Outer Space Treaty was considered by the Legal Subcommittee in 1966 and agreement was reached in the General Assembly in the same year ( resolution 2222 (XXI)). The Treaty was largely based on the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, which had been adopted by the General Assembly in its resolution 1962 (XVIII) in 1963, but added a few new provisions. The Treaty was opened for signature by the three depository Governments (the Russian Federation, the United Kingdom and the United States of America) in January 1967, and it entered into force in October 1967. The Outer Space Treaty provides the basic framework on international space law, including the following principles:

- the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;
- outer space shall be free for exploration and use by all States;
- outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;
- States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;
- the Moon and other celestial bodies shall be used exclusively for peaceful purposes;
- astronauts shall be regarded as the envoys of mankind;
- States shall be responsible for national space activities whether carried out by governmental or non-governmental entities;
- States shall be liable for damage caused by their space objects; and
- States shall avoid harmful contamination of space and celestial bodies.

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<sup>6</sup> <http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html>





*Photo Credit: <http://futurehumanevolution.com/space-colonization-future-human-habitats>*

## **Why build space settlements?**

With our rising planet's population competing for space and resources, some people are convinced we need to look beyond Earth to help ensure humanity's survival. As Elon Musk, the entrepreneur behind space tourism company SpaceX put it: "I think there is a strong argument for making life multi-planetary in order to safeguard the existence of humanity in the event that something catastrophic were to happen."

Even if you don't believe this bleak vision, it's hard to ignore the eternal human instinct to discover the undiscovered – an urge that could push people beyond the safety of our planet. And there might not be as many hurdles as you might think. "We are at the level of technology where we can imagine leaving the planet for a few nearby places in our Solar System," former astronaut Jeffrey Hoffman, who will present his ideas at our summit, told BBC Future previously. "The Moon is just around the corner, and Mars isn't that far away. We have the possibility of at least making the first steps of those voyages in our own lifetimes."<sup>7</sup>

The key advantage of space settlements is the ability to build new land, rather than take it from someone else. This allows a huge expansion of humanity without war or destruction of Earth's biosphere. The asteroids alone provide enough material to make new orbital land hundreds of

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<sup>7</sup> <http://www.bbc.com/future/story/20141002-time-to-plan-a-space-colony>

times greater than the surface of the Earth, divided into millions of colonies. This land can easily support trillions of people.<sup>8</sup>

## Vast resources in space

Resources in space, both in materials and energy, are enormous. The Solar System alone has, according to different estimates, enough material and energy to support anywhere from several thousand to over a billion times that of the current Earth-based human population. Outside the Solar System in the [Milky Way](#), several hundred billion other galaxies in the [observable universe](#) provide opportunities for both colonization and resource collection, though travel to any of them is impossible on any practical time-scale without the use of [generation ships](#) or revolutionary new methods of travel, such as faster-than-light (FTL) engines.

All these planets and other bodies offer a virtually endless supply of resources providing limitless growth potential. Harnessing these resources can lead to much economic development.

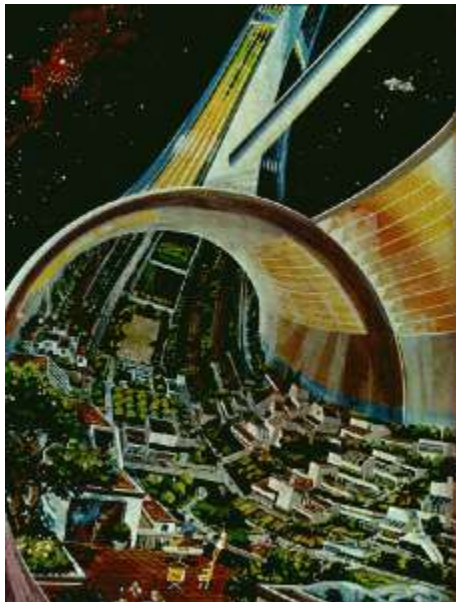


Photo Credit: <http://futurehumanevolution.com/space-colonization-future-human-habitats>

### Additional Resources:

<http://www.unoosa.org/oosa/en/informationfor/faqs.html>

<http://www.unoosa.org/oosa/en/ourwork/copuos/index.html>

<http://settlement.arc.nasa.gov/Basics/wwwwh.html>

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<sup>8</sup> <http://settlement.arc.nasa.gov/Basics/wwwwh.html>

## **Points to be Addressed**

Utilization of outer space and its available resources and colonization opportunities

Funding of Space Colonization

Considerations for underdeveloped countries.

Preventing conflicts, wars and use of weapons of mass destruction in space

Promoting of peaceful use of outerspace.

## **Questions to Consider:**

1. What is the current state of your country's space program?
2. How advanced is your country's space program?
3. What is your country's position on Colonization of space?
4. What are the positions of your country's allies on the issue of space colonization?

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