

## **Twentieth Anniversary of the 1979 Moon Treaty: The Legal Status of the Moon and Other Celestial Bodies Revisited in the Light of the Commercialisation of Outer Space Activities**

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### **ABSTRACT**

The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the Moon Agreement) was adopted by the UN General Assembly on 5 December 1979 and opened for signature in New York on 18 December 1979. It entered into force on 11 July 1984. It has been ratified by only 9 states, without the ratification of the major space powers - the Russian Federation and the United States.

During the past 20 years a lot has been written on the various legal aspects of the 1979 Moon Agreement by eminent authorities and experts in space law or the law of outer space. Irrespective of this, it should be pointed out that international law has been and is an evolutionary and dynamic legal system. Its progressive development and codification in the 20th Century, particularly after the Second World War, has been made possible through the active participation of all states and their nationals in all stages of the law-making process. In the present state of rapid advances in space science and technology, there

is be a need for continuous discussion and deliberation on how to improve the legal regulation of outer space activities during the 21st Century.

Thus, this paper is a brief reflection on some of the controversial provisions of the 1979 Moon Agreement, with a view to contributing to the on-going discussion on its implementation.

### **Introduction**

For centuries the moon has been an interesting, exciting and fascinating phenomenon in the cultures, myths and beliefs of peoples around the world. Before the discovery of electricity, it was, and still is, the natural source of illumination during the night. I can still remember the feeling of beauty and serenity while sailing in the Atlantic Ocean during a full moon. The moon exerts a lot of influence on the lives of people irrespective of their stage in socio-economic, scientific and technological development.

Thirty years ago, on 26 July 1969, Neil Armstrong became the first human being to set

foot on the moon under the US Apollo project. He was accompanied on the moon's surface by Aldrin while Michael Collins remained in the orbiting command module. The astronauts, as envoys of mankind, were able to tell us more about the nature of outer space, the Moon and other celestial bodies, and the nature of the earth viewed from that region in the solar system.

For example, one of the astronauts on the last Apollo mission in 1972, retrospectively observed: "The only strong sense of unreality in our work on the moon came from the image of home, the Earth, always hanging in the same spot in that black sky, 230,000 miles away. This marbled blue and white globe, with its red and orange desert beacons, will remain the most beautiful homes we will have in our solar system. For those who venture to Mars and beyond, even the unreality of the Earth above them will disappear as it shrinks to a point of bluish light near a setting or rising sun."<sup>2</sup> He continues: "Walking on the moon really feels like one of those experiences in life that remains forever meaningful for one specific reason: although the experience has been anticipated through pictures, books, the accounts of others, even computer simulations, when the actual event stimulates our feelings, nothing can prepare us for the emotions and perspectives of actual personal experience."<sup>3</sup> Similar observations were made by the crew of Apollo IX, Frank Borman, James Lovell and William Anders.<sup>4</sup>

It should be pointed out that through the US and Soviet lunar probes we have been able to know more about the composition of the moon. For example, in 1998 ice was discovered on its surface.<sup>5</sup> It is interesting to note that, besides those states and inter-governmental international organisations, nationals (natural and juridical persons) of states are very active in many lunar research projects. For example, the US company TransOrbital, plans to launch a privately-funded lunar orbiter, TrailBlazer, in December 2000 to take live, high resolution telephoto images of the surface from an altitude of 100 km. The images should show

Earthrise and be good enough to show the tracks left by the Apollo lunar rovers for up to 75,000 potential clients from sponsors to scientists. The \$1 million craft would operate for a maximum of 90 days before impacting on the moon.<sup>6</sup>

As we now participating in the 1999 42nd IISL Colloquium on the Law of Outer Space, we are at the same time commemorating the 20th anniversary of the adoption by the UN General Assembly on 5 December 1979, the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement). The Moon Agreement was opened for signature on 18 December 1979 and entered into force on 11 July 1984. It is very disappointing and discouraging to observe that only a few states have ratified it for one reason or the other.<sup>7</sup>

During the past two decades since its adoption

and entry into force, a lot has been written by eminent authorities and experts in space law on the 1979 Moon Agreement but, sadly, no consensus has been produced in order to make it more acceptable to all Member States of the UN, particularly, the space powers.<sup>8</sup> Furthermore, there have been conflicting interpretations of its provisions. Thus, considering that other papers will be presented during the sessions of this Colloquium dealing with various questions concerning the moon, it is not my intention to reflect on all the controversial provisions of the 1979 Moon Agreement.

### **The 1979 Moon Agreement**

The 1979 Moon Agreement was the outcome of the elaboration of the provisions of the 1967 Outer Space Treaty (OST) relating to the legal status of the moon and other celestial bodies. Its provisions embody legal principles and rules to govern the exploration and exploitation of the resources on the moon and other celestial bodies. It consists of a Preamble and twenty one Articles.

Let's start with Article 3 of the 1979 Moon Agreement. It stipulates as follows: "1. The moon shall be used by all States exclusively for peaceful purposes. 2. Any threat or use of force or any other hostile act or threat of hostile act on the moon is prohibited. It is likewise prohibited to use the moon in order to commit any such act or to engage in any such threat in relation to the earth, the moon, spacecraft, the

personnel of spacecraft or man-made space objects. 3. States Parties shall not place in orbit around or other trajectory to or around the moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the moon. 4. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on the moon shall be forbidden.

The use of military personnel for scientific research or for any other peaceful purposes shall not be forbidden. The use of any equipment or facility necessary for peaceful exploration and use of the moon shall also not be prohibited."

It should be noted that the provisions of this Article further consolidate and elaborate the provisions of Article IV of the 1967 Outer Space Treaty (1967 OST). Commenting on the military aspects of the 1979 Moon Agreement, Professor Diederiks writes: "The Agreement leaves unanswered the question whether or not nuclear weaponry and weapons of mass destruction are banned on the moon and on trajectories to and around the moon and other celestial bodies. The Agreement is equally silent on the placing in outer space of weapons other than nuclear devices or weapons of mass destruction."<sup>9</sup>

It should be pointed out that the moon and other celestial bodies are totally neutralised and demilitarised, pursuant to the provisions of

Article IV of the 1967 Outer Space Treaty. Therefore, it is submitted that all weapons, including their systems, irrespective of their nature, are banned. I feel that the spirit of the law of outer space, as embodied in all the outer space instruments, including the UN Charter and international instruments, is to establish and promote international peace, security and cooperation among the states and peoples of the world.

It should further be emphasized that the militarisation of outer space, the moon and other celestial bodies during the 21st Century, by creating or establishing new weapon systems, for example, missile defence systems, will never create the permanent peace and security for any state and its people embarking on such a defence strategy. But mutual trust, understanding, justice, good faith and cooperation among states and peoples can create a solid foundation for permanent peace.

### **The "Common Heritage" of Mankind Principle (CHM)**

The principle of the "common heritage" of mankind is embodied in the provision of Article 11, paragraph 1, which stipulates: "The Moon and its natural resources are the common heritage of mankind, which finds its expression in the provisions of this Agreement, in particular in paragraph 5 of this article." According to paragraph 5, States Parties to the agreement are to establish an international regime, including appropriate procedures, to govern the

exploitation of the natural resources of the moon as such exploitation is about to become feasible. Furthermore, paragraph 7 stipulates that the main purposes of the international regime to be established shall include:

- (a) the orderly and safe development of the natural resources of the Moon;
- (b) the rational management of those resources;
- (c) the expansion of opportunities in the use of those resources;
- (d) an equitable sharing by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the moon, shall be given special consideration.

According to many experts and eminent authorities in space law, the provisions of Article 11, particularly those of paragraph 1, have been the main obstacle to the popularity and acceptance by many states, particularly the space-faring ones (US, Russia, UK, France, etc). Dr. Terekhov, for example, has pointed out that "The low "popularity" of the Moon Agreement among some developed States seems to be explained mainly by the presence of Article 11, which declared the moon and its natural resources the common heritage of mankind (para. 1) and provided for the establishment of an international regime to govern exploitation of the natural resources of the moon, as such exploitation is about to become feasible." He added that the specific formulation of Article 11 was the outcome of

long and arduous negotiations and is generally considered a concession of the developed States to the developing ones.<sup>10</sup>

It seems to me that the reason for this unpopularity and non-acceptance is because priority is given to individualistic national interest over the common interest of the human race as a whole. This, furthermore, means that the interpretation of the term or concept of the Common Heritage of Mankind (principle) must reflect this individualistic national interest. This reminds me of what my late professor in Moscow told me twenty-six ago. He said that any scholar should always put national interest first in his or her academic activities.

Thus, to be more objective in the interpretation of the Common Heritage of Mankind Principle, I will adopt the method expressed in the following maxims: **Interpretare et concordare leges legibus, est optimum interpretandi modus** (To interpret, and (in such a way as) to harmonize laws with laws, in the best mode of interpretation); **Interpretatio fienda est ut res magis valeat quam pereat** (such an interpretation is to be adopted that the thing may rather stand than fall). This will require that I have to use other sources of laws because of the inter-disciplinary character or nature of concept or principle, which all positive laws must accept and recognise, in order to create a greater consensus among existing diversities in the major legal systems of the world.

In this regard it should be borne in mind that,

since the world consists of many states belonging to various legal systems with diversities of cultures, religious beliefs and values, it is always necessary to refer to other sources of human knowledge in order to find the objective meaning of a controversial term such as the one under discussion in this paper.

Let us look at some provisions of the UN Charter. For example, Article 1 paragraphs (3) and (4) of the UN Charter stipulate one of the purposes of the United Nations is, "To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion," and "To be a centre for harmonizing the actions of nations in the attainment of these common ends." Article 103 further provides that: "In event a conflict between the obligations of the Members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail."

I have been reflecting for a long time about the meaning of this principle of the Common Heritage of Mankind (CHM) and I have come to understand that it expresses an objective universal truth which could be seen in major religious traditions. It is an expression of the common source or origin of the human race. Furthermore, it expresses the absolute universal

truth of the brotherhood and the sisterhood of man in the Fatherhood and Motherhood of God, as the Creator of Heaven and Earth and all therein. This further reminds me of one of the paragraphs of the Preamble of the UN Charter which reads as follows: "to practise tolerance and live together in peace with one another as good neighbours." The word "neighbour" according to the **Oxford Advanced Learner's Dictionary of Current English**, means "person living in a house, street, etc near another; person, thing or country that is near(est) another." Good neighbours everywhere in the world, irrespective of the socio-economic and political status in the country where they live, always strive to maintain harmony, peace and mutual cooperation in their neighbourhood by respecting each others values. Thus, an objective analysis of the personality and character of the founding fathers of the United Nations will reveal that the provisions of the Preamble, and Articles 1 and 2 of the Charter embody not only ideas of positive international law but also their world outlook, beliefs, and values.

Moreover, it is interesting to note that the idea expressed in the above quoted paragraph, and the Preamble of the UN Charter, can be found in many parts of the **Bible**. For example, in II Cor. 13 verse 11,

Saint Paul the Apostle, advises the people of Corinth and us as follows: "Be perfect, be of good comfort, be of one mind, live in peace;

and the God of love and peace shall be with you." This further confirms the significance of the UN Charter as the most important source of contemporary international law, including all its branches since some of the concepts can be found in the Scriptures. It, therefore, follows that in interpreting the provisions of any international law instruments, there is nothing wrong in using the Holy Bible as an aid to the objective interpretation of controversial legal concepts and terms.

This universal truth as embodied in the Common Heritage of Mankind Principle (CHM) can further be seen in the first chapter of the Holy Bible, that is Genesis 1. Because of its length, I will only quote some verses that are directly related to my task of interpreting of the principle.

In verses 14-18 it is stated that: "God said, Let there be lights in the firmament of the heaven to divide the day for the night, and let them be for signs, and for seasons, and for days, and for years: And let them be for lights in the firmament of the heaven to give light upon the earth: and it was so. And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also. And God set them in the firmament of the heaven to give light upon the earth, And to rule over the day and over the night, and to divide the light from the darkness: and God saw that it was good." Verses 26-28 tell us about the creation of man as follows: " And God said, let us make man in our own image, and after our

likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in his own image, in the image of God created he him: male and female created he them. And God bless them, and God said to them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth."

It can be seen from the whole chapter of this great Book of knowledge, wisdom, and understanding that we are all heirs and heiresses, irrespective of the diversities between states and the peoples of the world. The sun, the moon, stars and other celestial bodies in the solar system were created by the Creator for the good of mankind as a whole. Psalm 136, for example, states that God by wisdom made the heavens (verse 5), great lights (verse 7), the sun to rule by day (verse 8), and the moon and stars to rule by night (verse 9). I am convinced that no scientist, whether living or dead can negate these absolute universal and eternal truths quoted from the Holy Scriptures.

In this respect, it is interesting to point out that the Christmas Message from the Moon sent by the crew of APPOLLO VIII was the opening ten verses of the Christian story of creation, the Book of Genesis, from the Holy Bible, which were read in turn by Astronauts Anders, Lovell and Borman.<sup>11</sup>

Thus, at this juncture, it is important to emphasize that it will be impossible to create the necessary uniformity and consensus in the process of interpreting of the CHM principle if we have to rely solely upon the existing modes of legal interpretation established by the various legal systems of the world. The Holy Bible as the universal Code of Moral Conduct and Ethics for the whole of humanity will be of much help in solving the existing problems concerning the definition of the legal status of the moon and other celestial bodies.

It is encouraging to note that the great scientist Albert Einstein recognized the importance and role of religion in human development when he said: "Science without religion is lame, religion without science is blind." (Science, Philosophy and Religion: a Symposium (1941)).

### **Concluding Remarks and Observations**

In the foregoing paragraphs, I have focused more on the legal regime of the moon as established under the provisions of the 1979 Moon Treaty. Using the Holy Bible as my main source of reasoning and legal interpretation of the concept, term or notion of the **Common Heritage of Mankind (CHM)**, it has been shown that it expresses a universal truth about the common origin of mankind. It embodies the legal policy of equality, justice, peace, fairness and cooperation. Judge Christopher G. Weeramantry of the International Court of

Justice (ICJ) in throughout his book **The Lord's Prayer A Bridge To A Better World (1998)**, illustrates the truth that mankind is from a common source or origin.

It should be remembered that the legal regime established in the provisions of Article 11 of the 1979 Moon Treaty is already embodied in other international legal instruments, for example, in the provisions of the 1967 Outer Space Treaty (Article 1) and the 1982 UN Convention on the Law of the Sea (Part XI). Article 136 of 1982 UNCLOS provides that: "The Area and its resources are the common heritage of mankind." The legal status of the Area and its resources. Article 137 (2), for example, provides that "All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act.

These resources are not subject to alienation." Thus, the pragmatic implementation of the CHM concept in contemporary international law is the establishment of the International Sea-Bed Authority under the provisions of Articles 156-158.

It should be remembered that the Moon Agreement was concluded before the 1982 UNCLOS. Papers presented by scientists during the various IAF Congresses have demonstrated the feasibility of the resources of the moon being mined during the 21st. century. Why the foot-dragging and double-standard in accepting the legal regime established under the provisions of Article 11 of the 1979 Moon

Agreement. Space science and technology have been developing leaps and bounds during the past two decades of the 20th century irrespective of the fact that many areas of this branch of human knowledge are still unregulated by the international law of outer space.

We should not allow the Moon Agreement to become waste paper in the archives of the United Nations and governments of Member states. It is the duty of international lawyers particularly those specializing in space law to forget their differences and cooperate in its development and codification during the 21st. of our new Millennium. C. Wilfred Jenks in this respect was perfectly right when he pointed out that "We cannot afford to imprison the development of space law in concepts and prejudices derived from an earlier stage in the development of international law in which responsible international lawyers no longer believe. The cloven hoof of sovereignty and sterile semantics of inductive positivism have no place in space law."<sup>12</sup>

Finally, I would like to emphasize that law as tool of social engineering and management of the affairs of any society is to promote the rule of law in all relationships between all its members, in order to avoid anarchy chaos. History has already taught us here on earth the consequences of the scramble of wealth through the conquest territories during the 17th, 18th, 19th and 20th centuries. Are we to use the process of commercialising space activities as a



pretext to pursue nationalistic policies in the exploration exploitation of the resources of the moon and other celestial bodies during the 21st century, because of non-ratification of the 1979 Moon Agreement? My answer is emphatically No. We have a duty towards the future generations to develop and strengthen further what has been achieved through consensus in the space law making process.

I would like to conclude the presentation of my paper with a quotation from late Judge Manfred Lachs: "To prevent man from becoming a prisoner of the forces he himself has let loose, and eventually their victim, to arrest this process of decay and canalize the uses of science in the interest and for the good of mankind: that is law's paramount task."<sup>13</sup> Thank you for your kind attention.

### **Endnotes**

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2. Schmitt, Harrison H., "A Trip to the Moon", in *WHERE NEXT COLUMBUS? The Future of Space Exploration*, edited by Neal, Valerie, OUP (1994), pp. 74-75.
3. Ibid.
4. *Spacecraft*, Vol. 40 No. 12 1998, pp. 285-287.
5. *The Hutchinson Encyclopedia of Science*, Helicon Publishing Ltd. (1998), p. 499.
6. *Spaceflight* Vol. 41 No. 10 1999, p. 403.
7. Australia, Austria, Chile, Mexico, Morocco, Netherlands, Pakistan, Philippines and Uruguay have ratified it. It has been signed by France, Guatemala, India, Peru and Romania. The major space powers have refused to sign or ratify it.
8. See, for example, Cheng, Bin, *Studies in International Space Law*, Claredon Press, Oxford (1997), pp. 357-380; Christol, Carl Q., *The Modern International Law of Outer Space*, Pergamon Press, New York (1982), pp. 246-341; Diederiks-Verschoor, I. H. Ph., *An Introduction to Space Law*, Kluwer Law and Taxation Publishers, Denveter (1993), pp. 44-47; Wassenbergh, Henri A., *Principles of Outer Space Law in Hindsight*, Martinus Nijhoff Publishers, Dordrecht (1991), pp. 39-49; Lyall, Francis, "ON MOON", in *JOURNAL OF SPACE LAW*, Vol. 26, No.2 (1998), pp. 129-138; Doyle, Stephen, "USING EXTRATERRESTIAL RESOURCES UNDER THE MOON AGREEMENT OF 1979", *Ibid.*, pp. 111-128; Cocca, Aldo Armando, "Space Law and the Right of Mankind", in *Proceedings of the 33rd Colloquium on the Law of Outer Space*, (1990); Terekhov, Andrei D., "Review Clause of the Outer Space Treaties", *Ibid.*, pp. 356-361; Wiessner, Siegfried, "The Public Order of the Geostationary Orbit: Blueprints for the Future" in *THE YALE JOURNAL OF WORLD PUBLIC ORDER*, Vol. 9, No. 2 (Spring 1983), pp. 217-274.

9. *Op. cit.*, p. 46.
10. See footnote 7, *Ibid.*, p. 358.
11. For more details, see, *Spaceflight*, Vol 40 No. 12 (1998), pp.484-487.
12. Jenks, Wilfred C., *Space Law*, Stevens and Sons, London (1965), p. 315.
13. Lachs, Manfred, *THE LAW OF OUTER SPACE*, Sijthoff, Leiden (1972), p. 149.