

LAW AND ETHICS OF SPACE ACTIVITIES IN THE NEW MILLENNIUM¹

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Abstract

Man finds itself at the threshold of the XXI century and of the third millennium. The whole humanity faces new advances and new challenges in the areas of science and technology. Science and technology have assumed a decisive role in the social and economic development. Development of nations requires the advancement of their own science and technology.

Space technology is a fundamental tool to achieve that development. Through international cooperation the transfer of technology takes place, which allows the improvement of the quality of life in developing countries.

International cooperation in science and technology has deep ethic and legal contents. In Space Law, cooperation is considered as a legal obligation.

The Declaration on international cooperation, approved by the UNGA Resolution 51/122 of 13/12/96, establishes a firm basis to promote development and the exchange of technology.

As it was stated in UNISPACE III, the new problems that face space activities, bring up legal challenges that demand solutions. Such solutions should be sought on the basis of respect for the principles, declarations and

resolutions of the General Assembly and taking into account the needs of developing countries.

Space Law should continue being the basis upon which international cooperation bases on. COPUOS should continue promoting the adherence of states to space treaties in force, and the formulation of new norms with the view of fulfilling the legal vacuums.

The COPUOS, with both of its Sub-Committees, represents the body where law, science and technology meet, and its function, in these areas, must be strengthened.

The transfer of technology finds its support on international cooperation and international cooperation bases itself in ethic principles contained in treaties and declarations of principles in force.

In front of the rapid advancement of science and technology, it should be admitted the existing relationship between ethic and legal principles that support international cooperation and guarantee the transfer of technology in order to serve the interests of common people, taking into particular consideration the needs of developing countries.

As Judge Manfred Lachs says, "pacific cooperation is possible, only if all

¹ The views expressed herein are those of the author and do not necessarily reflect those of the organisation from which she is a member.

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states submit themselves to the rule of law in all its dimensions”.

Introduction

At 43 years of the beginning of the Space Age, the advances in the field of science and technology continue to surprise us every day. Science and technology have assumed a decisive role in the economic and social process. Development of nations requires the one of their own science and technology as well.

In the field of space activities, telecommunications, remote sensing , SIG, and multimedia services by satellite are, among others, the ones that have achieved more advancement. The activities undertaken, in the national and international, public and private levels, and the benefits derived there from, are widely known through -among other sources- the UN annual reports and were described in detail in UNISPACE III.

Developing countries, most of which do not have space technology, have always looked for the benefits derived from it. In that field, the existing inequalities between developed and developing countries must tend to reduce themselves better than to increase.

As Martínez Pavez rightly points out, the development of technology consists in putting the scientific knowledge to man's service, through its application to the production of goods and services for the benefit of Humankind¹

To obtain this, we must appeal to the repeatedly invoked international cooperation, which, in many cases, has proved to be real, but, in others, is just a term without content. We should continue relying on international cooperation, since through it the transference of technology takes place, which, at the same

time, allows the improvement of the quality of life in developing countries.

International cooperation and the UN

The topic of international cooperation has always been present in the UN since its establishment in 1945. The UN Charter, on its article 1/3 states, as one of its Purposes: "to achieve international cooperation in solving international problems of an economic, social, cultural or humanitarian character...". This is the main juridical basis of a principle recognized by the 188 States Parties of the major international organisation.

To accomplish that goal, the UN has developed several plans and projects. But, in order to help the growth of the needed countries, it recognised that the contributions in money were insufficient and that technology played a decisive role. Since then, and specifically in the space field, the UN has worked hardly in programs of science and technology applications for the benefit of the less developed regions of the world.

International cooperation in Space Law: UN Resolution 51/122

In Space Law, and since the Outer Space Treaty of 1967, it has been recognized by qualified Latin American doctrine, that international cooperation is a legal obligation, that conditions the legality of every space activity, being one of its main principles. "

Cooperation must be understood as "operating together". From there emerges the right that all subjects of international law have to demand that "operation together".

In view of the importance of the issue and considering that the principle established in article I of the Outer Space Treaty should be examined thoroughly and should explicitly

refer to developing countries -so as they could have access to the "benefits" derived from space technology- a new theme was included in the COPUOS Agenda in 1988, proposed by Chile and other Latin American countries: "Consideration of the legal aspects related to the application of the principle that exploration and utilisation of outer space shall be carried out for the benefit and in the interest of all States taking into particular consideration the needs of developing countries".

As it is widely known, the issue was studied during a large period of time, and working papers were presented by developed and developing countries, as well, in which the different points of view supported by both sides, were reflected. Finally, and as a result of an implicit consensus, the UNGA approved, in 1996, Resolution 51/122.

Starting from that Resolution, States reaffirmed their compromise to promote international cooperation in the exploration and use of outer space with pacific purposes for the benefit and in the interest of all States, "*taking into particular consideration the needs of developing States*". The goals of cooperation according to the Resolution are: "to promote the development of space science and technology, to foster the development of the States capacity and to facilitate the exchange of knowledge and technology ".ⁱⁱⁱ

The Resolution makes reference to the principles of equity and mutual acceptance.

In UNISPACE III there were pointed out as obstacles to cooperation, among others: the budget limitations and the difficulties to obtain financing. It was also reaffirmed the need of a multilateral political consensus at the top decision level with the aim of putting into practice the common space goals fixed by the General Assembly on its Resolution 51/122.^{iv}

There exist several doctrinaire opinions about the binding value of this document. As any legal text, and when its stipulations are not very precise, like this Resolution, the opinions vary. There are some authors that, analysing the Resolution in the context of the rules of Space Law, consider cooperation has having legal value.^v Others, on the contrary, consider the Declaration a "should " document that gives no "right" to access/participation/share of benefits with respect to the exploitation of outer space resources.^{vi}

While it may be discussed the legal value of UNGA Resolutions, this one, in particular, refers to a principle that, as it was stated, was already ruled in the UN Charter and in all the treaties that constitute the "*corpus juris spatialis*". Resolution 51/122 does not do but develop the principle of international cooperation established in Space Law and that has already acquired the quality of customary law and must be considered as an instrument that should serve as a basis for possible mechanisms of cooperation among nations.

The North-South gap

The poorest countries continue to impoverish themselves and, as a consequence, the North-South gap continues increasing.

In view of this, it becomes necessary to strengthen the South-South cooperation. This fact was remarked in the Group of 77 South Summit celebrated in Havana, Cuba, in april 2000. It was pointed out that such a cooperation "is an effective instrument for optimising our potential to promote development through, among other things, mobilisation and sharing of existing resources and expertise in our countries as well as complementing cooperation programmes with donor countries."

It was also recognised that regional cooperation and integration is the most meaningful approach for the South to face the challenges of globalisation and take full advantage of its opportunities.

The prevailing gap between the North and South in the scientific and technological field is still growing, and that is why developed countries should facilitate the transfer of technology, easing the costs and collateral conditions that presently stand in this way.

The Declaration of the South Summit expressed to be deeply convinced of the need to create a new spirit of international cooperation based on the principle of achieving shared benefits but also based on common but differentiated responsibilities, between the developing and industrialised countries.

It was also stated that the UN has a central role to play in the promotion of international cooperation, transforming international economic relations to make them more fair and equitable.

Developed countries, for their part, recognise this situation. In the recent G8 Summit Meeting, it was stated: "...it is necessary to lead the most disadvantaged countries to the technological race so as to avoid the increasing of the gap that separates the North from the South, generating in this way, new and deepest inequalities".^{vii}

These statements are fully applicable to space activities that cannot be considered isolated from the international context.

Nobody discusses about the principle of international cooperation. It is recognised in several international legal instruments, and, in the space field, as it was stated, is considered as a legal obligation since the approval of the Outer Space Treaty.

However, without a political will to perform it, the principle becomes dead letter.

Nevertheless, it is not only necessary the political will of the international organisations or of the developed countries, but also the one of those developing countries that look for cooperation. That means, the process should begin at the domestic level, where scientists and technicians must convince the political actors about the need and the usefulness of counting with certain tools that could help the economic and social growth. In the same way, through education it is necessary that future generations learn about space technology and become aware of the benefits derived there from. The next step is to enter to the international arena to look for possibilities to take profit from the benefits brought by the space tool and for opportunities to get trained in their use.^{viii}

Latin America vis-à-vis international and regional cooperation

In the Latin American region, international space cooperation has increased. There are fields in which this cooperation is already under way and on the other hand, there are projects in which the countries of the area, should try to participate.

More specifically, in South America, several countries have achieved significant advances in the development of space technology. This makes possible a progressive regional cooperation in this area, according to and complementing the integrationist objectives established in the Mercosur Treaty.^{ix}

The Treaty of Asunción, and its Protocols of Ouro Preto (17/12/94) and Montevideo (15/12/97) about the Mercosur, the Action Plan and the Declaration of Punta del Este, approved in the III Space Conference of the Americas^x, as well as the UNGA Resolution 51/122, impose all the States involved that, besides the development

of their national activities, they should consider projects that promote an extensive regional cooperation in space matters.^{xi}

Uruguay, for its part, may study an eventual participation in projects of the ESA and Spain, already under way, and could take advantage of opportunities offered by the EU.^{xii}

After the III CEA, Uruguay assumed the Pro-Tempore Secretariat (PTS) with the aim of promoting the programmes of multilateral space cooperation and performing the follow-up of the projects endorsed by the Conference.^{xiii}

The PTS fostered the establishment in 1998 of the Advisory Committee in Space Technology (CATE) composed by representatives of national organisations linked with the study and use of space technology. Its goals are, among others, to examine the situation of the different users of space technology and to coordinate the actions of the state in the field of space technology as well as to submit to the Executive Power the basis for the future elaboration of a National Space Plan that should look for the best way of utilising that technology according to national reality.

The Committee must take the greatest advantage of the international agreements that offer technical and scientific cooperation, so as to have experts that may contribute to the best administration of the space issues, fact that could enable the achievement of the fixed objectives.

As a consequence of this, the Committee promoted the project CREPADUR (Centre for the Reception, Process, File and Dissemination of Data from the Earth Observation-Uruguay) that is financed by the Spanish Agency of International Cooperation (AECI) and counts with the technical support of the National

Institute of Aeronautical Technique (INTA) of Spain.

This undertaking is an important step because it is the result of domestic cooperation which means that the process was given from inside to outside.

This will mean, for countries like Uruguay, the possibility of counting with a mechanism that allows taking advantage of the possibilities given by space technology as a way to reach development.

It may be added that, our countries, more specifically States Parties of the Mercosur, faced with the arrival of the Information Society should continue intensifying the use of technologies of information and communication with the aim of achieving an efficient, equitable and sustainable development. The access to information to acquire and apply knowledge is a common denominator to reach this development.

In the XXI century, the character and velocity of the process of integration in the region will be mainly defined by the way in which the countries cooperate so as to create a knowledge economy.^{xiv}

Ethics and Law

The international system, in which most of the countries of the world take part, have established a set of principles to which the states have adhered to, when subscribing the Purposes and Principles of the UN Charter. From them there may be inferred a series of ethic and legal principles.^{xv}

Today's reality shows us that ethical and legal values have weakened at the international as well as at the domestic level.

In reference to science and technology in particular, and as accurately Cocca points out, everybody claim for a fast confluence of the Law so as to offer to the scientist and

particularly to Humankind a legal environment where useful achievements may prosper and the harmful ones are impeded to develop.^{xvi}

Technology is a tool that must serve the needs of common people. Only in this way the ethical order that emerges from the space treaties and principles could be accomplished.^{xvii}

It is necessary to recognise a new ethic in the Space Age, so that the process of deep changes caused by the accelerated scientific-technological development, converts into a unifying element of Humankind and in a source of sustained and equitable progress^{xviii}

It is evident that lately the Law has not kept pace with the recent developments of space technology.

Scientific-technological activities cannot continue developing without legal rules. It is essential to preserve one of the main characters of Space Law: anticipation.

Consequently, and from the view of developing countries, it is necessary to strengthen the role of COPUOS as the body where the scientific-technological and scientific-legal issues meet and also, for being the main centre of coordination of international space cooperation.^{xix}

Law is the principal tool that developing countries own to make sure that space activities serve the interests of all states and Humankind as a whole. Only in this way a balanced and equitable development of space activities can be safeguarded.

It is to be hoped that what Judge Manfred Lachs said in 1962, when he was elected as Chairman of the first meeting of the Legal Subcommittee of COPUOS, serve as a guide to the actors of the new millennium: "Law is contributing to cooperation and sharing in the peaceful uses of outer space and to ensure that the people of all countries can enjoy the social, economic and cultural

benefits of space science and technology. While the relationship between law and technology is complex, it is clear that the two areas are inseparable and must evolve together to ensure that space activities continue to serve the interests of all states and of Humanity as a whole".^{xx}

ⁱ Martínez Pavez, Carlos. "La cooperación técnica internacional y el desarrollo". In: Regional meeting about ethic and legal contents of the advances in science and technology and of international scientific cooperation. Consejo de Estudios Internacionales Avanzados. Córdoba, Argentina. 1985.

ⁱⁱ Ferrer, Manuel A. "Contenidos éticos y jurídicos de la transferencia de tecnología espacial". Op.cit.in i. -Gaggero, Eduardo. D. "Perspectivas de cooperación espacial para el desarrollo en las Américas. Papel de la Ciencia Jurídica". II Space Conference of the Americas. Santiago de Chile, 26-30 April 1993.

ⁱⁱⁱ A/RES/51/122, 13/12/96.

^{iv} A/CONF.184/6, par. 379.

^v González Aninat, Raimundo. "Participación de los países en desarrollo en los beneficios derivados de la actividad espacial". CIDA-E Review. 20^o Anniversary. 1995.

^{vi} Wassenbergh, Henri A. "The international regulation of an equitable utilization of natural outer space resources". Proceedings of the thirty-ninth Colloquium on the Law of Outer Space, 1996.

^{vii} G8 Kyushu-Okinawa Summit Meeting 2000. Okinawa, Japan, July 21-23, 2000.

^{viii} Seminar for Decision-Takers: "Space activities: the technological advances in the Mercosur". Montevideo, Uruguay, May 20-22, 1998.

^{ix} Treaty of Asunción of 26/3/91. It created the Mercosur which States Parties are Argentina, Brazil, Paraguay and Uruguay.

^x III Space Conference of the Americas. (III CEA) Punta del Este, Uruguay, 4-6 november 1996.

^{xi} Seminar... cit. in viii.

^{xii} Projects FUEGO and EMERSAT of the ESA, ENRICH program of the EU, HISPASAT program, IBEROEKA program, used by the Centre for Industrial Technological Development of Spain, and the opportunities of cooperation offered by the EU for non member countries (Action Plan about communication satellites for the Information Society). In : " Las actividades espaciales en Uruguay. Situación actual y perspectivas de futuro". Juan de Dalmau. Department of Strategy. ESA. 1999.

^{xiii} Resolution of the Executive Power N° 581/997 of 1/7/97.

^{xiv} Seminar "Mercosur in the 21st century: technology of information for development and integration". Interamerican Bank for Development (BID) -Uruguay. Montevideo, Uruguay, July 21.22, 2000.

^{xv} Garzón Valdés, Ernesto. "Algunas tesis acerca de la relación entre ética y ciencia moderna". Teaching of International Law. UNESCO, Buenos Aires, Argentina. 1972.

^{xvi} Cocca, Aldo A. "Carencias legales en el ordenamiento interno, internacional y diplomático ante el desarrollo de las ciencias". Regional meeting... cit. in i.

^{xvii} Gonzalez Aninat, Raimundo. 52^o period of sessions. UNGA. 4th Commission. International cooperation for the utilization of outer space for peaceful purposes. N. York, 5/11/97.

^{xviii} Gaggero, Eduardo D. Op. cit. in ii.

^{xix} Gaggero, Eduardo; Presto, Alicia; Gaggero, Marta. "Existing UN space treaties. Strengths and needs". IISL Workshop: Space Law in the 21st century. UNISPACE III. Vienna, 11-30 July, 1999.

^{xx} Lachs, Judge Manfred. "Thoughts on International Law". Perspectives on International Law. Edited by N. Jasentuliyana. Kluwer Law International, 1995.