GUARANTEEING ACCESS OF DEVELOPING COUNTRIES TO OUTER SPACE

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ABSTRACT

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Basically the formulation of Space Law should accommodate not only the needs and interest of Developed Countries, but also those of Developing Countries.

In order to guarantee access of Developing Countries to outer space, considerations should be made on the following issues : access to the taking of benefits from natural resource in Outer Space; access to the benefit from the application of space science and technology ; and access to enter into international market.

Proper interpretation on fundamental legal principles of the existing space law will become determining factors to guarantee access of Developing Countries.

ABSTRAK

Pada dasarnya formulasi kaidah-kaidah Hukum Antariksa harus mengakomodasikan kebutuhan dan kepentingan baik negara-negara maju, maupun negara-negara berkembang.

Untuk menjamin akses negara-negara berkembang ke antariksa, perlu dipertimbangkan masalah-masalah seperti : akses untuk memperoleh manfaat dari sumber daya di antariksa; akses terhadap manfaat dari aplikasi iptek antariksa; akses terhadap iptek antariksa itu sendiri; serta akses untuk memasuki pasar internasional. Penafsiran yang tepat terhadap prinsip-prinsip fundamental dari Hukum Antariksa akan menjadi faktor penentu guna menjamin akses negara-negara berkembang.

1 INTRODUCTION

First of all I would like to express my gratitude for the privilege given to me to provide some comments to the paper prepared by Prof Ram Jakhu titled "Current Legal Issues Relating to Access to Space". The paper of Prof Ram Jakhu provides us systematic and comprehensive elaboration and analysis regarding main legal issues relevant to access to outer space, which in general be divided into 3 most outstanding issues, namely: the nature and common interest principle as it is applies to access to outer space; international space law-making process and its relations with access to space; and the focus on two specific areas of space utilization with respect to compromised between well-recognized legal principles relating to access to space.

In general the writer shares most of the views of Prof Ram Jakhu on the above mentioned issues. Nevertheless, for the purpose of encouraging discussion and sharing of opinion on these important issues, the writer intend to focus the examination on how the existing fundamental legal principles of space law can be effectively implemented in such a way that the actual access of developing countries to outer space can be guaranteed in the global market economy. For that purpose the elaboration will be directed toward several issues, namely:

- presenting facts and data on globalization and its relation with the widening disparity between developed and developing countries;
- conducting some reviews on fundamental legal principles of the existing international space law relevant to access to outer space;
- identifying the kinds of access that developing countries should be provided;
- providing some recommendations to guarantee access to outer space.

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2 GLOBALIZATION AND ITS IMPACT TOWARDS ACCESS OF DEVELOPING COUNTRIES TO THE WORLD'S RESOURCES TO THEIR BASIC NEEDS

Today we are living in the era of globalization. This globalization era is based on market economy developed after the 2nd World War so called Breton Wood System. It is also within this framework of globalization that the mantra "deregulation, liberalization and privatization" seems to have divine power in directing economic and even the political development of many countries around **the** world (Nugroho Januar, 2002). It is ironic that after more than 5 decades of implementing the system, the results showing the widening gap between developed and developing countries which can be described by the following facts and data (Ibid, as cited from Ellwood (2001) and Hertz (2001):

- In I960, one-fifth of the world's people living in the richest countries had 30 times more income than one-fifth of those living in the poorest countries. By 1997 this income gap had more than doubled to 74 times;
- One fifth of the world's people living in high income countries had 86% of the world's GDP, whereas one-fifth of those in poor countries received only 1%;
- About half of the world's population lives in less than US$ 2 a day;
- Over US$ 1.5 trillion is exchanged every day in currency markets around the world. About 95% of this total represents speculative transactions that fail to benefit the poorest countries;
- The world's military spending is about US$ 780 billions per year, while with only US$ 19 billions per year malnutrition and hunger can be overcome, with only US$ 21 billions the needs for houses can be overcome, and with only US$ 2 billions per year the rights of every people to have education can be accommodated;
- There are also data which shows the contrast, where the spending for cosmetics for US Citizens is about US$ 2 billion per year , and the spending for ice cream for the European reach about US$ 11 billions, while with only US$ 9 billions per year all poor people can get access to clean water and sanitation (The speech of Oscar Arias in 1999 as quoted by Maria Hartiningsih in "Neo Liberal Capitalism", Kompas, 3 February 2003).

The real beneficiaries of globalization seem to be the transnational corporations. Of the top 100 economies, 51 are trans-national corporations. The combine sales of the world's top 200 companies surpass the combined economies of 182 countries.

The above facts and data have shown us that globalization just like everything else under the sun-is inherently ambivalent On the one hand, it brings prosperity, comfort, and convenience in the form of economic growth. But on the other hand, there are vast amounts of casualties from its progress. Environmentally, it can also be said it is hazardous. Globalization of economy with its neo-liberal capitalism only recognizes full competition as the only way to survive (the fittest the best, survival of the fittest) (Hartiningsih Maria, 2003).

As neo liberalism is closely related to capitalism, one is of the opinion that capitalism is a millenarian cult, raised to the status of a world religion, it is built upon the myth of endless exploitation. Capitalism believed that theirs will deliver them from finity. The world's resources, they assert, have been granted eternal life (Monbiot George, 2003). Capitalism seeks a value of production commensurate with the repayment of debt. Other perceives that in the post cold war era, the friendly face of capitalism is not needed anymore. Now Capitalist can do what they like and what they like is simply to make more money for themselves (Mohammad Mahathir, 2003). And so we see the great banks and corporations merging and acquiring each other to ensure that the tiny banks and businesses in the poor countries will not stand a chance, will be swept aside.

Today the disparity between the rich (developed) and the poor (developing countries) is greater than ever. The richest countries have a per-capita of more than of

US $ 30,000, while the poorest US $ 30. Of the world six billion people, one billion are underfed, under clothed and without a roof over their heads. Many scrounge in rubbish heaps for food, clothing, and materials for their shelter (Ibid. See also Kofi A. Annan, "Business Leaders must not wait for Governments", The Secretary General's address to the World Economic Forum on 4 February 2003).

You might be questioning what is the relevance of the above data to the main issue of guaranteeing access of developing countries to outer space? My answer is very relevant by stating that if the current global market economy cannot cope with the issue of guaranteeing access to the most basic requirements of human dignity (mostly from developing countries), how can it deal with guaranteeing access to outer space? As we are all aware that space utilization is a capital intensive activities. In addition, with the rapid trends of commercialization and privatization of space activities of which the government's involvement will be less than previously, there is a doubt that the private sectors are willing to set aside some of their revenue and/or profit for guaranteeing access of the developing countries to their needs for space utilization.

3 FUNDAMENTAL LEGAL PRINCIPLES OF THE EXISTING LAW RELEVANT TO GUARANTEEING ACCESS TO SPACE

For the purpose of guaranteeing access to space to all countries, particularly to those of developing countries, it is important to examine fundamental legal principles of existing law with the emphasis (by giving special attention) to the principles of public international law and space law. The objectives of this examination are to ascertain that the interpretation and implementation of such principles could accommodate the balance needs and interest of all countries in a just and fair manner. Some of the principles have been discussed in detail in Prof. Ram Jakhu's paper. In addition to that, some other relevant legal principles can be further elaborated, as they are closely related to access to space, such as "common interest" in relation to "common property", "common heritage of mankind' (CHM), and "province of mankind; the principle of "equitable access"; "non-appropriation principle"; "principle of international cooperation"; and "peaceful uses".

3.1 Common Interest, Common Property, Common Heritage of Mankind (CHM) and the Province of Mankind

Within the framework of International Law the above similar legal concepts are recognized. They have something in common, they refer to an area beyond national jurisdictions. They also have in common that they cannot be subjected to the sovereignty of any State (Pinto MCW, 1985).

a. Common Interest

On the concept of common interest many views have been put forward as to its meaning. On the one hand it can be interpreted as a declaration of intent, while on the other hand it can be interpreted as establishing a requirement for States to share all benefits derived from it (Matte N. M„ *1984, Smith Milton L., 1990). Another view divided the common interest concept into speculative common interest and practical common interest (Christol Carl Q.(1991). The former requires a wide sharing of resources on the part of the more fortunate States with the less fortunate, while the latter relies on political will in the implementation of such sharing (Ibid).

The concepts of common interest is relevant when applied to valuable (explorable, usable, exploitable) area beyond national jurisdiction, especially when it is considered that one claim might take the form of an assertion of ownership or dominium (Ibid. pp 379-380).

b. Common Property

The concept of common property was inspired by the concept of Roman Law. This concept was used and developed by Grotius to place the open sea (mare liberum) in a category of things which by consensus of opinion of all mankind are forever exempt from national ownership in

account of their susceptibility to universal use(See MCW Pinto, op.cit, pp 81).

c. Common Heritage of Mankind (CHM)

The view has been expressed that the CHM is an extension of the Res Communis Humanitatis concept, since it is open for inclusive use and denies exclusive use. But it goes further by asserting that there must be a sharing of the benefits and the values derived from it (See Carl Q Christol, op.cit, pp 382). Another view was expressed by the opinion that the CHM is the modern version of Res Communis, which applies to another, namely a right to use the resource (Reijnen Besss CM, 1992). It was further stated that a Res Communis cannot be owned, but it may be used on the basis of the equality of all States. Equality presupposes that at least access to common areas beyond national jurisdiction is open to all, without any constraints, as long as it does not establish any exclusive and discriminatory uses (See Ibid, pp 4).

In general there are two (2) primary theories regarding the CHM:

- The first theory holds that the CHM established common ownership in which all countries are entitled to substantive property rights over the natural resources of an area that is the CHM (Smith Milton L.(Zwaan Tanja L.(Kluwer 1988). In essence this type of CHM concept would secure economic benefit for developing countries that may have cost them nothing. It is not surprising, therefore, that many of the proponents of this theory are from developing countries (Supancana I.B.R, 1998).

- The second theory is quite different. It considers that the above theory is "foreign to existing international law and may even come into conflict with existing rules of international law* (Milton L. Smith, supra note 17, pp 51). Instead it holds that the CHM is simply a continuation of general concept Res Communis and the Common Interest (Walsh Kevin B., 1981).

The concept of CHM has been expressedly and impliedly mentioned in several; UN Documents (Among others: UNGA Resolution no 1962 (XVIII) of 1963; The Outer Space Treaty of 1967, article I; The UNGA Declaration on Principles Governing the Seabed and Ocean Floor of 1970; The Moon Agreement of 1979, Article XI, 1; The UNCLOS of 1982, article 133 and 136).

d. The Province of Mankind

The province of all mankind is seen as a principle which unifying a number of other general and specific rights and duties contained in article XI (1) of Space Treaty of 1967. The word "province" refers to "sphere of works" (Wassenbergh, 1991) or "benefit" (Carl Q. Christol, op.cit, pp 71) while the words "mankind" refers to "the society of States" (Wassenbergh, loc. cat). Thus the province of all mankind principle refers either to the "sphere of works of the society of States" or to the "benefit of all mankind". Apart from the fact that there are possibly different interpretation on the meaning of "the province of all mankind" principle, in practice this principle has been adopted as a guidance for conducting exploration and use of outer space, including the moon and other celestial bodies. In the context of access to space utilization this principle shall be applied.

3.2 The Principle of Equitable Access

Another important principle that should be taken into serious consideration in space utilization is the principle of "equitable access". In the existing Space Treaties, the term "equitable access" is not mentioned. The standard terms being used in such treaties are "equality (See Article I and X of The Space Treaty of 1967), "equitable sharing" (See Article 11 (7) d of the Moon Treaty of 1979); "equitable measures (See Paragraph 4 of the Preamble of the Liability Convention of 1972)"; "equity" (See Article XII of the Liability Convention of 1972). In contrast, the term "equitable access" is being used in the International Tele-communication Conventions (See Article 33 (2) of the ITU Convention 1973; Resolution No. 3 of the WARC 1979; Article 33 ITU

Convention 1982; Article 44 of the ITU Constitution 1992).

The Black Law Dictionary defines the term "equitable" as "just, fair and right in consideration of the facts and circumstances of the individual case" {Blacks Law Dictionary). While the Oxford Handy Dictionary defines it as "fair, just, and valid in equity" (The Oxford Handy Dictionary, Chancellor Press, 1986, pp 287). Equity was defined as "fairness; use of principle of justice to supplement law, system of law so developed" (Ibid) and equality is defined as "being equal, become equal" (Ibid).

"Equitable" should in a broader sense, means to cover balanced, just, fair and proportional in relation to certain special conditions (circumstance). Moreover, the principle of equitable access should meet not only the existing needs, but also future needs.

In order to guarantee the actual access of developing countries to space, for example to limited natural such as earth-orbits spectrum resource, it is necessary to formulate criteria on the issue of "equitable access". Such criteria could be formulated in a "general" and "flexible" way to cope with certain future changes by considering certain aspects, such as:

- the efficient and economical use;
- the balanced needs of the first user and subsequent user;
- the ability to get access (technically and financially);
- the interest of developing countries;
- the geographical situations of particular countries;
- the development in the field of science and technology;
- a non-discriminatory basis to guarantee future access.

3.3 Non-Appropriation Principle

There are several interpretations of the meaning of non-appropriation as stated in article II of the Space Treaty of 1967. One is that the non-appropriation principle was adopted to implement the freedom of use doctrine, because, quite simply, appropriation of a resource by a single state would usually be inconsistent with freedom of use by all States. If it is a scarce resource, appropriation is generally considered to be the taking of property for exclusive use with a sense of permanence. Appropriation of outer space, therefore, is the exercise of exclusive control or exclusive use of outer space on a permanent basis (Smith L. Milton, 1990). Another opinion states that every use could be legitimate as long as it does not exclude "other" permanently from such use or impose undue restrictions (Valters, 1970). The principle of non-appropriation was reiterated in the Moon Agreement of 1979 (Article XI (2) of the Moon Agreement of 1979 stating: "The Moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means"), in which non-appropriation is meant to prohibit ownership (See Kevin B Walsh, op.cit, pp 43). Though it prohibit ownership, there are still activities which are not prohibited, such as: the placement of personnel, space vehicles, equipment facilities, stations and installations on or below the surface of the moon, including structures connected with their surface or sub-surface. The rights to collect and to use moon samples for scientific are also not prohibited.

In the context of access to space resource, the non-appropriation principle can be described as follows:

- it cannot be made subject to sovereignty of any State;
- it cannot be made public property (ownership);
- it can not be exploited until an international regime is established;
- it cannot be used exclusively;
- it can not be utilized on permanent basis.

3.4 Principle of International Cooperation

The principle of international co-operation or the principle that exploration and utilization of outer space shall be for the benefit and in the interest of all countries is laid down in article I (1) of the

Space Treaty of 1967. There were two (2) different standpoints on this article when it was formulated:

- The developed countries agreed that this principle set forth limitations and obligations to the use of outer space, but it did not diminish their inherent rights to determine how they share the benefits derived from their space activities;
- The developing countries believed that this principle was not only an appeal to all States to conduct their space activities on a cooperative international basis, but actually implies that they have an obligation to do so (Jasentuliyana Nandasiri, 1994).

As the consequence of their standpoint most of developed countries are of the opinion that there is no formal mechanism to enforce this principle, while some developing countries insist that there should be a requirement for a stricter and codified international legal instrument to ensure cooperation and access for all countries (Ibid, pp 9).

The question of the need to establish a cooperation mechanism to guarantee the exercise of this principle has been a concern of the UNCOPUOS and adopted as the agenda item of the Legal Sub Committee of the UNCOPUOS under the title "Consideration of the legal aspects related to application of the principle that the exploration and utilization of Outer Space shall be carried out for the benefit and in the interests of all States, taking into particular account the needs of developing countries". During the Legal Subcommittee sessions of 1992-1993 the developing countries (G 77) submitted a working paper entitled "Principles regarding international cooperation in the exploration and utilization of outer space for peaceful purposes" (UN Doc A/AC.105/C.2/L.182 of 9 April 1991. Submitted by Argentina, Brazil, China, Mexico, Nigeria, Pakistan, The Philippine, Uruguay and Venezuela. This was further revised as appeared in UN Doc.A/AC.105/C.2/L.182/Rev. 1 of 31 March 1993). The working paper elaborates six (6) principles, with emphasis on the following:

- States are sovereign in deciding the modalities of their cooperation (See Ibid, principle I);
- The main objectives pursued by international cooperation should be the development by all States of indigenous capability in space science and technology and their applications (See, Ibid, principle III);
- International cooperation should be conducted for peaceful purposes and on a non-discriminatory basis (See, Ibid, principle IV);
- The need to preserve the outer space environment (See, Ibid, principle V);
- The need to strengthen and enlarge the role of the UN and its scope of activities (See, Ibid, principle VI).

At the Thirty-Fourth Session of the Legal Subcommittee in 1995 a revised version to the previous working paper from developing countries was submitted (UN Doc.A/Ac.l05/C.2/L.182/Rev.2). A joint working paper prepared by Germany and France was also submitted (UN Doc.A/AC.105/C.2/L.197J. In General, the two working papers had some substances in common:

- the requirement to guarantee a State's sovereignty to determine their form and level of cooperation;
- the scope of cooperation to be regulated should cover all forms of cooperation, either bilateral, multilateral, non-governmental or inter-governmental.

The differences between the two working papers were that the developing countries' working paper is aimed at adopting a resolution which will further be directed toward a regulation of international cooperation by stressing the principles of "sovereignty", "equity" and promoting "indigenous capability", while the German/French working paper emphasizes the need for a non-binding declaration; a reference to intellectual property, and focusing inter-

national cooperation on the application of space technology.

In 1996 a UNGA resolution was adopted titled "Declaration on international cooperation in the exploration and use of outer space for the benefit and in the interest of all States, taking into particular account the needs of developing countries" (UNGA Resolution no 51/122, 13 December 1996). There are important provisions in the declaration, namely:

- States are free to determine all aspects of their participation in international co-operation on an equitable and mutually acceptable basis;
- International cooperation should be conducted in the modes that are considered most effective and appropriate by the countries concerned including inter alia, governmental and non-governmental, commercial and commercial; global, multilateral, regional or bilateral; and international cooperation among countries in all level of development.

3.5 The Principle that Outer Space, Including the Moon and other Celestial Bodies should be Utilized for Peaceful Purposes.

Under the existing International Outer Space Law this principle is laid down in all space treaties (See article IV (2) of Space Treaty of 1867; Preamble of the Rescue Agreement of 1968; Preamble of the liability Convention 1972; Preamble of the Registration Convention 1975; and article 3 (1) of the Moon Agreement 1979), also in the UNGA resolutions. Yet, no treaty concerned with outer space activities defines the meaning of "peaceful" and "exclusively for **peaceful*** purposes.

The term "peaceful" in relation to outer space activities was interpreted by the United States to mean "non-aggressive* rather than "non-military". Accordingly, all military uses are permitted and Lawful as long as they remain "non-aggressive" as per article 2 (4) of the United Nations Charter, which prohibits "the threat or use of force". By contrast, the former USSR publicly took the view, despites its own military use of outer space, that "peaceful "meant "non-military", and that in consequence all military activities in outer space were "non peaceful" and possibly illegal (Vlasic Ivan A., 1991).

For guaranteeing access to space to all countries, particularly those of developing countries, it is important to ascertain that space utilization will be dedicated "exclusively for peaceful purposes". To achieve that, further clarification on the meaning of peaceful should be examined, which covers such as **(I.B.R** Supancana, op.cit, pp 60):

- the meaning of "mass destruction weapons";
- the meaning of "non-aggressive";
- technical parameters to identify whether an activity can be classified as "peaceful";
- whether non-military activities which are aggressive can also be classified as "peaceful";
- which institution should be given a mandate to discuss the implementation of the principle that outer space should be used for peaceful purposes?

Though there is no official definition of the terms "mass destruction weapons", it is generally accepted as referring to "chemical weapons, "biological weapons", "laser beams weapons", etc. But to assess whether an activity is "non-aggressive" is in fact not a simple matter, since it is open to a very broad interpretation and therefore could become too subjective. Examples are whether the use of satellite for verification; the use of military satellite for supporting civil navigation systems; and the use of civilian remote sensing satellite for military purposes could be classified as "non-aggressive"? To answer these questions, maybe the use of some parameters (legal, political, technical) must be considered. An example of this idea is the establishment of technical parameters, for instance based on their orbital parameter, or a military doctrine that dictates the use of force (See Bhupendra Jasani, Ibid, pp 9).

Another important issue that should be resolved in this regard is which international institutions have the

competence to discuss or to verify or to make an assessment whether an activity is "peaceful" or "non-peaceful"? On the one hand the space powers refused to discuss the issue within the framework of the UNCOPUOS since it has no mandate to do so. But on the other hand, the Conference of Disarmament (CD) is only relevant to the issue of armament/disarmament. Thus, a legal lacuna emerge in a situation where a non-military activity is aggressive in nature.

4 THE SCOPE OP ACCESS TO SPACE THAT DEVELOPING COUNTRIES DESERVE

For the purpose of guaranteeing access of developing countries to space, it is important to define the scope of access that developing countries deserve. In general, access to space can be divided into:

- access to the taking of benefits from natural resources in outer space, including the moon and other celestial bodies;
- access to the benefits from the application of space science and technology;
- access to space science and technology;
- access to enter into international market.

4.1 Access of Developing Countries to the Taking of Benefits from Natural Resources in Outer Space, including the Moon and other Celestial Bodies

With the rapid growth of comer-ciaiization and privatization of space activities in the era of global market economy, the issue of access of developing countries to space is relevant and therefore, should be seriously considered. Especially when it deals with fulfillment of their basic needs of which space science and technology may contribute at an affordable price. This makes sense as developing nations are in general lacks of financial and technical capabilities (In addition, they also lack of scientific infrastructure; lack of data and information; lack of sufficient scientific infrastructure etc. For detail analysis, see I.B.R Supancana, The Commercialization of Space Activities, Challenges and Opportunities for Developing Countries", paper presented at UN/Indonesia Regional Conference on Space Science and Technology for Sustainable Development, Bandung, Indonesia, 17-21 May 1993. See also I.B.R Supancana, "Commercial Utilization of Outer Space and Its Legal Formulation-Developing Countries' Perspectives", Pro-ceedings of the I1SL Thirty-Fourth Colloquium on the Law of Outer Space. Montreal-Canada, 1991, pp 348 - 356).

In recent years, we can observe the increasing utilization of natural resource in outer space, especially earth-orbits spectrum resource (GEO, HEO, MEO/ICO, LEO) for certain activities. As it is generally recognized that earth-orbits spectrum resources are limited natural resources, there must be an evaluation to the existing law whether it is able to accommodate the interest of both developed and developing countries in a fair, just and equitable manner.

Previously regulations concerning access to earth-orbits spectrum resource are mainly based on "first come, first serve" principle which are more favorable in accommodating the interest of developed countries. However, consistent efforts on the part of developing countries to get a fair and just access to this limited natural resource have shown substantial progress. This can be seen in the outcome of World Administrative Radio Conferences of the ITU at their 1985 and 1988 sessions. The concept of "apriori planning" and "simplified improved procedures" provides guarantee for access, particularly those of developing countries. Furthermore, the concepts are elaborated in the amandement of the ITU Convention as appears in ITU Constitution of 1992. In the practical management of earth-orbits' utilization some new rules have been applied such as :"administrative due diligence" and "financial due diligence" to prevent the abuse of rights in the ITU 's registration process like: "paper satellites", "excessive and un-proportional" application.

With regard to other natural resources on the Moon and other celestial bodies, some anticipation has to be made

access to space science and technology. For the sake of securing application of space science and technology shall only be for peaceful purposes, a comprehensive measure may be taken, including but not limited to: establishing a verification system recognized by all countries with clearly defined parameters (legal, political and technical) and supported by effective law enforcement mechanism conducted by relevant international organizations.

4.4 Access to Enter Into International Market

As the result of the process of transfer of technology there will be a situation where developing nations possess genuine capabilities in space science and technology. Consequently there is a need to provide their services not only within their local market, but also overseas market. In such situation the international market shall be opened. Free and fair competition shall be created and secured subject to certain restrictions based on global security reasons. No restrictions may be imposed by the space powers only to prevent product and services coming from developing countries in contrary with the recognized international trading system.

5 CONCLUDING REMARKS

To conclude my comments, some conclusions and recommendations can be addressed, namely:

- As it is widely recognized that the application of the progress in space science and technology have brought substantial contribution to the betterment of human's life, there is a need to guarantee access to such achievement for all countries, particularly those of developing countries;
- In order to guarantee such access, a strong political will from all countries is required and shall be reflected in the form of standardized national legislations governing space activities both conducted by state and non-state actors;
- Standardized national space legislations shall be developed in accordance with the existing public international law and particularly international space law;
- Existing legal principles and legal concepts under existing international space law such as: common interest, common heritage of mankind, equitable access, non-appropriation, international cooperation, and peaceful purposes shall be interpreted and implemented in such a way that it would guarantee access to outer space to all countries, including those of developing countries on a proportional and fair manner so as to accommodate the balance interest of developed countries and developing countries;
- Access of developing countries to outer space shall be understood to include: access to the taking of benefits from natural resources in outer space; access to the benefits from the application of space science and technology; access to space science and technology; and access to enter into international market.

REFERENCES

Besss CM Reijnen, 1992. *The United Nations Space Treaties Analyzed,* Editions Frontieres, pp 3.

Blacks Law Dictionary.

Carl Q Christol, 1991. *Space law: Past, Present and Future,* Kluwer Taxation Publisher.

George Monbiot, 2003. *Capitalist Zeal Nurtures an Illusion of Unlimited Resources,* National News Service London as published by the Jakarta Post, 3 January.

I.B.R Supancana, 1991. *Commercial Utilization of Outer Space and Its Legal Formulation-Developing Countries' Perspectives",* Proceedings of the IISL Thirty-Fourth Colloquium on the Law of Outer Space. Montreal-Canada, , pp 348 - 356.

I.B.R Supancana, 1993. *The Commercialization of Space Activities, Challenges and Opportunities for Developing Countries,* paper presented at UN/ Indonesia Regional Conference on

Space Science and Technology for Sustainable Development, Bandung, Indonesia, 17-21 May, See also.

I.B.R Supancana, 1998. *The International Regulatory Regime Governing the Utilization of Earth-Orbits,* Doctorate thesis, Leiden University, The Netherlands, pp 45.

ITU Constitution 1992.

ITU Convention 1973.

ITU Convention 1982.

Ivan A Vlasic, 1991. *The Legal Aspects of Peaceful and non-Peaceful Uses of Outer Space,* in Peaceful and non-Peaceful Uses of Outer Space, Taylor and Francis, New York, pp 40.

Januar Nugroho, 2002. "Reinventing Globalization", Jakarta Post. 30 December.

Kevin B Walsh, 1981. *Controversial Issues under Article XI of the Moon Treaty,* Annals of Air and Space Law. Vol VI, pp481.

Kofi A.Annan, 2003. *Business Leaders must not wait for Governments,* The Secretary General's address to the World Economic Forum on 4 February.

Mahathir Mohammad, 2003. *Overcoming Hatred and Greed,* Speech at the World Economic Forum, Davos, Switzerland, 23 January.

Maria Hartiningsih, 2003. *Neo Liberal Capitalism,* The speech of Oscar Arias in 1999 as quoted. Kompas, 3 February.

Maria Hartiningsih, 2003. *Ritual to defy the Death,* Kompas, 20 January.

MCW Pinto, 1985. *The New Law of the Sea and the Grotian Heritage,* in International Law and the Grotian Heritage, A Commemorative Colloquium, TMC Asser Institute, The Hague, pp 81-82.

Milton L Smith, 1990. *Compliance of the Post WARC ITU Regulatory Regimes with International Space Law,* paper presented at the IISL Colloquium, pp 1.

Milton L. Smith, 1988. *The Commercial Exploitation of Mineral Resources in Outer Space,* in Space Law, Views of the Future, Tanja L Zwaan (ed), Kluwer, pp 51.

N. M. Matte, 1984. *Space Activities and Emerging Law,* as quoted by Milton L Smith, International Regulation of Satellite Communication, Martinus Nijhoff, 1990.

Nandasiri Jasentuliyana, 1994. *Ensuring Access to the Benefits of Space Technologies for All Countries,* Space Policy, February, pp 8-9.

Resolution No. 3 of the WARC 1979.

the Liability Convention of 1972.

The Moon Agreement of 1979.

the Moon Treaty of 1979.

The Outer Space Treaty of 1967.

The Oxford Handy Dictionary, Chancellor Press, 1986, pp 287.

The UNCLOS of 1982.

The UNGA Declaration on Principles Governing the Seabed and Ocean Floor of 1970.

UN Doc A/AC.105/C.2/L.182 of 9 April 1991. Submitted by Argentina, Brazil, China, Mexico, Nigeria, Pakistan, The Philippine, Uruguay and Venezuela. This was further revised as appeared in UN DocA/AC.105/C.2/L.182/ Rev.l of 31 March 1993.

UN Doc.A/Ac.l05/C.2/L.182/Rev.2.

UN Doc.A/AC.105/C.2/L.197.

UNGA Resolution no 1962 (XVIII) of 1963;

UNGA Resolution no 51/122, 13 December 1996.

Valters, 1970. *Perspectives in Emerging Law of Satellite Communication,* Stanford Journal of International Studies, vol. 5, 66-67, pp 23.

Wassenbergh, 1991. *Principles of Outer Space Law in Hindsight,* Martinus Nijhoff Publishers, pp 57.