

NATIONAL SPACE LAW AND REGULATION IN AFRICA: A CASE STUDY OF NIGERIA AND SOUTH AFRICA

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Some countries in Africa – Nigeria, South Africa, Algeria, Egypt and Morocco – have become active players in space science and technology development in the last few decades. These States have adopted national law and internal regulations governing their respective space activities and the activities of private bodies operating under their respective jurisdiction, in order to comply with the rules and principles established by the United Nations Space treaties. This work examines the existing national space law and regulation in Africa, using the case study of Nigeria and South Africa. It gives a brief origin of national space legislation and regulation, and a survey of space legislation of major space players like the United States, United Kingdom and the Russian Federation. It then talks about the importance of the development national space legislation and regulation. It discusses the space activities in Nigeria and South Africa and their major space law and regulatory instruments, for example the National Space Research and Development Act 2010, the Nigerian Communication Satellite Corporation Act 2012, the South African Space Affairs Act 84 1993, the South African Space Affairs Amendment Act 64 1995, and other regulatory instruments, with respect to the countries' international obligations. It further talks about the problem of legislation in Africa. It ends with the conclusion that Nigeria and South Africa have found it imperative to guide their space activities and those of private bodies by enacting their national space legislation, thereby fulfilling their obligation under international space law. It finally gives some recommendations.

INTRODUCTION

The number of players in space in Africa has increased in recent years. Commercialization and privatization of some aspects of the countries' space programs is beginning to enter into the scene. Therefore, national space law and regulations become of major importance in these countries' today's scientific study, exploration and utilization of outer space. Certain rules and principles for the conduct of the scientific study, exploration and utilization of outer space have been agreed at the international level. These rules and principles, which are to guide the states in their conduct of space activities, must be observed not only by the states but also by private actors operating in the states.

Some states in Africa, like Nigeria and South Africa, in order to maintain the obligation bestowed on them internationally, which are contained in the outer space treaty of 1967, Rescue and Return Agreement of 1968, Liability Convention of 1972, Registration Convention of 1975, Moon Treaty of 1979, and other resolutions of United Nations General Assembly, have enacted space laws and regulations to guide their activities in outer space and the activities of private enterprises in their territory. Each of the two countries' national space law is later discussed.

BRIEF ORIGIN AND SURVEY OF NATIONAL SPACE LAW AND REGULATION

At the beginning of the Space Age, only the United States and the Soviet Union were in a position to carry out the technologically most complex and expensive

space activities.* These countries were later joined by France and few others. During this period, military and state security motivations indicated the direction of these countries' space programs.† Therefore, space activities then were carried out only by the Government of the States.

Modern space legislation started immediately after the launch of Sputnik 1 in October 1957 by the Soviet Union. It is, however, said that space legislation foundation was laid down many years before space activities began. Eilene Galloway, Special Consultant to the Senate Special Committee on Space and Astronautics, in the Preface to the first volume of writings on space law prepared in 1958 for United States Senate, said:‡

* See Marboe I., "National Space Legislation", in: Brunner C. and Soucek A., 2011, *Outer Space in Society, Politics and Law*, New York: Springer-Verlag/Wien, pp.439-463.

† See Hermida J., 2004, *Legal Basis for a National Space Legislation*, New York: Kluwer Academic Publishers, p. xiii.

‡ See *Space Law: A Symposium*, 85th Congress, 2nd Session, December 31, 1958, Washington, Government Printing Office, 1959, p. v, cited in Vladimir Kopal, "Evolution of the Doctrine of Space Law" in: Jasentuliyana N. (ed), 1992, *Space Law: Development and Scope*, London: International Institute of Space Law, pp. 17-32

Long before a satellite was sent into orbit around the earth, many of the legal problems which would be created by this advance in science and technology were anticipated and analyzed. Indeed, the quality and quantity of published articles in this field are a matter of amazement to those who have only recently become aware of the impact of satellite development upon society. It is fortunate that so many fundamental thinking is already in existence at a time when scientific facts are rapidly developing and need to be studied in relation to national and international situations.

The international community, after the launch of that first satellite, realized the need to formulate international rules and regulations under which framework space activities are to be conducted. On the basis of a proposal by the U.S and 19 others states, the United Nations General Assembly (UNGA), in 1958 established the Committee on the Peaceful Uses of Outer Space (COPOUS), with the early purpose of determining the practical and feasible ways in which space-related programs could be appropriately undertaken under United Nations auspices and to study the legal problems that might arise from the exploration and use of outer space.[§] In 1963, the UNGA took the first step on the establishment of international space law by adopting the “Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space.” The Committee, guided by the principle of consensus in its decisions, drafted other significant international agreements (that are currently in force) between 1967 and 1979 – the Outer Space Treaty of 1967 (referred to as the Magna Carta of international space law), the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects launched into Outer Space of 1968, the Liability Convention of 1972, the Registration Convention of 1976, and the Moon Agreement of 1979.^{**} All these and others not mentioned here, form

[§] See Steven Gorove, “Sources and Principles of Space Law” in: Jasentuliyana N. (ed), 1992, Space Law: Development and Scope, London: International Institute of Space Law, pp. 45-58

^{**} See John O. N., “Recent Development in Space Law: Agreement on the International Space Station as Case Study”, a paper presented at the International Astronautical Congress, Prague, 2010. Available at

the international space legal regime. This body of international space legislation is considered too flexible to guide today’s global space activities.

Today, trans-border circulation of people, goods and services in the era of globalization, are at their fastest growth. National space and space-related activities, especially due to their rapid commercialization and privatization, are now part of this global process.^{††} Therefore, since States are bestowed with the obligation to authorize and supervise their national space activities, it becomes imperative for them to have their respective national space legislation. A survey of national space legislation of few countries is hereunder done.

United States: The United States has comprehensive national space legislation. It is noteworthy to state here that before any major international space legislation/regulatory instrument was made, the U.S had taken steps to enact its first national legislation on outer space – the National Aeronautics and Space Act (NASA Act) of 1958. The Act was a landmark law in that by its Section 102(a), it provides that U.S space activities would be devoted to peaceful purposes and for the benefit of all mankind. It achieved the fundamental objective of ensuring that outer space would be dependable, orderly place for beneficial pursuits.^{‡‡} This Act remains the core statement governing United States civil space exploration activities, launching as it did an organization that preempted outer space for peaceful exploration and uses.^{§§} It set forth a broad mission for NASA to “plan, direct, and conduct aeronautic and space activities”, to involve the nation’s scientific community in these activities; and to disseminate widely information about these activities.^{***}

Before the NASA Act of 1958, there was the Communications Act of 1934, which was declared to be applicable to private operators of space communications activities in 1970. The Act governed the authorization of communications satellites. The Commercial Space Launch Act of 1984 introduced a licensing regime for private space launches. Its purpose was to encourage, facilitate and promote commercial space launches by

<http://www.iafastro.net/iac/archive/browse/IAC-10/B3/8.-E7.7/6219/>.

^{††} See Vereshchetin V. S., “The law of Outer Space in the General Legal Field (Commonality and Particularities).”

^{‡‡} See Legislative origins of the National Aeronautics and Space Act of 1959, Proceedings of an Oral History Workshop Conducted April 3, 1992, Moderated by John M. Logsdon, NASA History Division Office of Policy and Plans, NASA Headquarters, Washington, DC 20546, July 1998.

^{§§} Ibid

^{***} Ibid

the private sector. It deals with the issuance and transfer of launch and re-entry licenses issued by the Office of Commercial Space Transportation of the Federal Aviation Administration (FAA) of the U.S Department of Transportation.^{†††} The Commercial Space Launch Amendment Act of 1988 introduced a system for the allocation of risks and assignment of liability between private participants and the government, and also between private participants themselves. This system permitted the US private industry to offer services at a competitive cost.^{†††} The Land Remote Sensing Policy Act of 1992 regulates the licensing procedure for private remote sensing activities. The Commercial Space Launch Amendments Act of 2004 contains provisions relating to recent development in space tourism.^{§§§} It requires commercial suborbital flight operators to make several written informational disclosures in order to obtain the informed consent of customers, to establish that the space flight participants bear the risk and are not entitled to the benefits of the liability insurance coverage.^{****}

United Kingdom: In United Kingdom the primary legislative document regulating the conduct of space activities is the Outer Space Act 1986. It is a comprehensive act of national legislation that responds to all aspects of international law. It ensures that space activities are in compliance with the State's international obligation and national security

^{†††} Irmgard Marboe, "National Space Legislation", in: Brunner C. and Soucek A. (Eds), 2011, *Outer Space in Society, Politics and Law*, New York: Springer-Verlag/Wien, pp. 439-463, citing Kayser Valerie, 2001, *Launching Space Objects: Issues of Liability and Future Prospects*, Dordrecht: Kluwer Academic Publisher, pp 79-86, 94-96; Vorwig Petra, "Regulation of Private Launch Service in the United States" Jakhu, R. S. (Ed), 2010, *National Regulation of Space Activities*, Dordrecht: Springer, p. 405.

^{†††} Hermida J., 2004, *Legal Basis for a National Space Legislation*, New York: Kluwer Academic Publishers, p. xiii.

Citing Hermida J., *Legal Aspects of Space Risk Management: The allocation of risks and assignment of liability in commercial launch services*, (LL.M., Thesis, McGill University, 2000) [unpublished].

^{§§§} See Irmgard Marboe op.cit; Gabrynowicz, Joanne, *One Half Century and Counting: The Evolution of U.S. National Space Law and Three Long-Term Emerging Issues*, *Harvard Law and Policy Review* 4 (2010): 405; Hughes, Timothy Robert and Esta Rosenberg. *Space Travel Law (and Politics): The Evolution of the Commercial Space Launch Amendments Act of 2004*, *Journal of Space Law* 31 (2005): 1, 3.

^{****} Irmgard Marboe, (Ibid).

interests.^{††††} Its main purpose was to secure compliance with the international obligations of the U.K with respect to the launching and operation of space objects and the carrying out of other activities in outer space by persons connected with Great Britain.^{††††} The Act consists of fifteen articles and it covers the licensing of activities, the license procedure, the register of space objects and a section of offences to the Act, among other aspects. It applies to the launch, procurement, and operation of a space object, whether carried on in the United Kingdom or elsewhere and to any activity in outer space.^{§§§§} However, the Act does not contain provisions that are favorable for space operators and likely to foster the national space industry; it lacks a ceiling for liability and of a state guarantee.^{*****} There has been no need for U.K to develop a more complex national legislation, because the majority of its space activities are carried out within the framework the European Space Agency.^{†††††}

Russian Federation: The major space legislation for the Russian Federation is the Law on Space Activities of 1993. By its Article 1(1), the Act applies to "space activities under the jurisdiction of the Russian Federation." This jurisdiction includes both territorial and nationality-based jurisdiction, as becomes clear when reference is had to a number of other provisions – most clearly with respect to the licensing regime itself.^{†††††} The types, forms, and terms of licenses, the conditions and procedures for their issue, withholding, suspension or termination, as well as other questions of licensing are regulated in the Statute on the Licensing of Space Activity, which was approved by Decree No. 104.^{§§§§§} The Russian Space Agency is in charge of conducting the licensing procedure and awarding the license. It has been entrusted with ample faculties to carry out its responsibilities. However, in certain cases it must seek the advice of a commission of experts.^{*****}

The law includes an authorization procedure for all space activities in Russian Federation both for scientific

^{††††} Ibid

^{††††} Hermida J., op.cit

^{§§§§} Ibid

^{*****} Irmgard Marboe, op.cit.

^{†††††} Ibid

^{†††††} See Frans von der Dunk, "Future Developments Relating to Outer Space Treaties", in *Proceedings of the Fortieth Colloquium on the Law of Outer Space*, 1997, pp. 449-453.

^{§§§§§} Decree of the Government of the Russian Federation No. 104 about the approval of the Statute on the Licensing of Space Activity, 2 February 1996, cited in Hermida J. (supra), p.108

^{*****} See Article 11(1) of Law of the Russian Federation on Space Activity.

and socio-economic purposes.^{†††††} It prescribes that all space objects of the Russian Federation must be registered and must bear markings certifying their appurtenance to Russian Federation.^{†††††} The law does not specify the information that has to be provided so that the Russian government can comply with its obligations under article IV of the Registration Convention.^{§§§§§}

In sum, despite Russia's successes in space exploration, it took the country time to have its national space law. However, compared with other national space Acts, the Russian Law is evidently more comprehensive on account of its vast participation in space activities.^{*****}

IMPORTANCE OF DEVELOPMENT OF NATIONAL SPACE LAW AND REGULATION

The United Nations treaties and UNGA Resolutions concerning outer space contain obligations (which States have to fulfill) and recommendations (which they have to meet).^{†††††} To fulfill these obligations and meet the recommendations, it is important that States enact their own space legislations. The reasons for this are not far-fetched:

One, the States will be able to supervise and control space activities within their territories in order to prevent harm, most especially now that the number of private and commercial space players has increased;

Two, they will be able to protect their national security and foreign policy interests by ensuring that the activities of the private and commercial players do not run counter to the interests; and

Lastly, this will make them fulfill the obligations bestowed on them internationally by the different treaties and resolutions.^{†††††}

SPACE ACTIVITIES IN NIGERIA AND MAJOR SPACE LAW AND REGULATORY INSTRUMENTS

Nigeria had the vision to venture into space in 1971.^{§§§§§} And before 1976 that Nigeria had the desire

^{†††††} See Article 9 of the Law. See also Irmgard Marboe, op.cit.

^{†††††} Article 17(1)

^{§§§§§} See Hermida J., p.110.

^{*****} Ibid

^{†††††} See the 1967 Outer Space Treaty, the 1968 Rescue and Return Agreement, the 1972 Liability Convention, 1975 Registration Convention and 1979 Moon Agreement.

^{†††††} See I. Marboe, "National Space Legislation" in: Brunner C. and Soucek A. (eds), 2011, *Outer Space in Society, Politics and Law*, New York: Springer-Verlag/Wien, pp.439-463.

^{§§§§§} Boroffice R. A. and Akinyede J. O., 2005, *Space Technology and Development in Africa and the*

to establish its own comprehensive Remote Sensing Centre (when the Government first made its intentions known during an inter-Governmental meeting held in Addis Ababa, Ethiopia), several studies were undertaken on behalf of the Federal Government of Nigeria, among which were the reports submitted by the Food and Agricultural Organization (FAO), and Dr. Abiodun Adigun. Approval was then given for the establishment of National Centre for Remote Sensing with its permanent Headquarters in Jos, and a satellite Ground Receiving Station at Kerang, near Panyan, Plateau State (the site of the defunct Aerostat Balloon project) following the decision by the National Council of Ministers^{*****} in 1995.^{†††††} Nigeria established the National Space Research and Development Agency (NASRDA) in 1999 to take the lead in space activities in the country. In 2003, Nigeria's mission to be a service provider was realized through the launch of NigeriaSat-1 in September.^{†††††} Presently, the country is developing its space capabilities while also considering the implementation of her space transportation and propulsion system. On 17 August 2011, the country launched two earth observation satellites, to boost African capabilities for natural resource management, as well as aid disaster relief through the Disaster Monitoring Constellation.^{§§§§§} Recently, Nigeria has ventured into commercial space through the launch of Commercial Purpose Communication Satellite, Nigcomsat – 1, now replaced with Nigcomsat – 1 R. Her commercial purpose communication satellite was launched by NIGCOMSAT Limited, a commercial communication satellite company formerly designed to be under NASRDA. It became a separate and independent company by taking over the business of operation and management of communication satellites from NASRDA. Although, private sector companies are presently not involved in commercial space activities in Nigeria, the stage is being set to allow this.

Presently, NASRDA has six operational centres. These are Centre for Basic Science, Centre for Remote Sensing, Centre for Satellite Technology Development, Centre for Geodesy and Geodynamics, Centre for Space

Nigeria's Experience, Abuja: National Space Research and Development Agency, p. 45

^{*****} Ref: CM/88/63, 8th Meeting, Conclusion 5 and CM (88) 175 Meeting of National Council of Ministers.

^{†††††} See National Centre for Remote Sensing 2003 Annual Report. See also National Centre for Remote Sensing Annual Report for the Year 2008.

^{†††††} Boroffice R. A. and Akinyede J. O., op.cit.

^{§§§§§} See Spaceflight, a British Interplanetary Society Publication, Vol 53 No October 2011, p. 374

Transport and Propulsion and Centre for Space Science and Technology Education.

Nigeria, in her adoption of national space regime, takes authority internationally to control what she does by the use of the technology, and bestowed her with the duty to authorize and supervise space activities over which she has jurisdiction. Hence, in 2010, The National Space Research and Development Agency Act was passed into law, to implement the principle of state authorization and continuing supervision, a burden imposed on the country by the Outer Space Treaty. This is because by virtue of section 12 of the constitution of the Federal Republic of Nigeria, a treaty shall have the force law only when enacted into law by the National Assembly. ***** Therefore, the National Assembly can make any law for the purpose of implementing a treaty. ††††††††††

The National Space Research and Development Act of 2010, apart from establishing NASRDA, also established the National Space Council.†††††††††† The Act empowers Council to – grant the approval for the Agency to enter into research and production partnerships with any company, Non-Governmental Organization, firm or individual; appoint technical consultants to advise it from time to time as the need and situation may arise. §§§§§§§§§§ The Council has power to make regulations generally for the purpose of giving effect to the provisions of the NASRDA Act either to facilitate the discharge of the Agency’s functions or pursue the Agency’s objectives. *****

On the issue of licensing of activities the Council, on the recommendation of the Agency, shall have power to grant licence to any person or body corporate for activities relating to the repository of satellite data over Nigeria’s territory, and collaborations and consultation in space data related matters. †††††††††† No licence shall be granted unless the Council is satisfied that the activities by the licence - will not jeopardize public health, the safety of persons or property; shall be consistent with the international obligations of the country; and shall not impair its national security. ††††††††††

A license shall describe the activities authorized by it and shall be granted for such period and subject to such conditions as the Council may deem fit. §§§§§§§§§§ A license may, in particular, contain conditions permitting

***** See Section 12 (1) of the Constitution.

†††††††††† See Section 12 (2).

†††††††††† See Section 2(1) of National Space Research and Development Agency Act of 2010.

§§§§§§§§§§ See Section 7 of the Act

***** See Section 35

†††††††††† See Sections 9(1) and 6(k)

†††††††††† See Section 9(2)

§§§§§§§§§§ See Section 9(3)

inspection and testing of the licensee’s facilities and equipment by the Council. It may require the licensee to provide the Council with information as to the space project. It requires the licensee to obtain advance approval from the Council for any intended deviation. It requires the licensee to conduct operations in such a way as to – prevent the contamination of outer space or cause adverse changes in the environment of the earth, avoid interference with the activities of others involved in the peaceful exploration and use of outer space, avoid breach of any international obligations, and preserve the national security of Nigeria. It requires the licensee to insure himself against liability incurred in respect of damage or loss suffered by third parties in Nigeria or elsewhere as a result of the activities authorized by the license. It governs the disposal of the payload in outer space on the termination of operations under the license. It requires the licensee to inform the Council as soon as practicable of its final disposal. It provides for the termination of the license on a specified time and event. *****

The NASRDA Act provides for the registration of space objects and the maintenance of register of Space Objects by the NASRDA. And this register is open for inspection on the payment of prescribed fees. ††††††††††

On the side of Satellite communications, the Nigerian Communications Satellite Act is on the pipeline. The Bill has been passed into law by the House of Representative, and it is now awaiting approval by Senate. However, the Nigerian Communications Commission Act of 2003, the Nigerians Communications Act (2003) Enforcement Regulations 2004, and Nigerian Communications Act (2003 No.19) Consumer Code of Practice Regulations 2007 all have provisions on communications, licensing and regulations.

The NASRDA Act does not establish any substantive decision regarding responsibility and liability. This is not too good about the Act, as it is going to affect the country’s space activities in the future.

Summarily, it may not be wrong to say that Nigeria does not really have comprehensive national space law. It would be in the best interest of the country to compile all the laws in a single document. The country is working seriously towards having comprehensive national space legislation.

SPACE ACTIVITIES IN SOUTH AFRICA AND MAJOR SPACE LEGISLATION AND REGULATORY INSTRUMENTS

South Africa initiated its first space program in the mid-1980s and mid-1990s. The objective of this

***** See Section 9(4)

†††††††††† See Section 10

program was to develop an Earth Observation Satellite (named Greensat), a rocket to launch it, and all the necessary facilities to support these activities. However, the program was terminated in 1994. Following this, the country developed a capability in microsatellite engineering at the University of Stellenbosch and built Sunsat, which was launched in 1999. This University in 2000 established a spin-off company, Sunspace, to commercialize the Sunsat technology, thus establishing South Africa's first dedicated satellite engineering company. This ushered South Africa into commercial space.

In 2005, the Department of Science and Technology commenced the *Sumbandila* Satellite program, with the main objective of building capacity in all aspects of national space program – satellite engineering, satellite operations, definition of user needs, applications development, regulatory issues, policy issues, etc.

It should be noted that South Africa has a variety of institutions that play a significant role in the scientific study, exploration and utilization of space.

These institutions, situated in academia, the science councils and industry, have broad competencies in satellite applications, satellite engineering and space science, and all their supporting technologies.

In 2006, the Minister of Trade and Industry appointed new members of the South African Council for Space Affairs. In early 2008, the Space Council started the development of a South African space policy to provide a high-level framework for all public and private sector space activities in the Republic. The draft policy was released for public comment in mid-2008. Before this time, (in early 2007) the Department of Science and Technology (DST) was mandated by Cabinet to develop plans for the establishment of South African space agency. The DST commenced work on the drafting of the necessary legislation to establish the space agency and also started developing a

See National Space Strategy, a publication of the Department of Science & Technology, Republic of South Africa. Available at www.dst.gov.za

See Martinez P. (ed), *Space Science and Technology for Sustainable Development* September 2008, a publication of the Department of Trade and Industry, Republic of South Africa. Available at www.thedti.gov.za.

See *Space Science and Technology for Sustainable Development*, a publication of Department of Trade and Instrument, Republic of South Africa, September 2008.

Ibid

Ibid

Ibid

national space science and technology strategy to guide implementation of the future space program.

The case of South Africa in treaty-making is different from that of Nigeria. The Constitution of South Africa places the treaty-making power in the hands of the National Executive – headed by the President - which is entitled to negotiate and sign international agreements. However, the Constitution confers a control function to the Parliament by providing that an international agreement is binding on South Africa only after it has been approved by resolution in each house of Parliament, i.e., the National Assembly and the National Council of Provinces. Just as it is in Nigeria, by Section 231(4) of the Constitution of the Federal Republic of South Africa, an international agreement becomes law only “when it is enacted into law by national legislation.”

The major national space legislation documents in South Africa are the Space Affairs Act 84 of 1993, Space Affairs Amendment Act 64 of 1995 and the South African National Space Agency Act of 2008. The Space Affairs Act No. 84 of 1993 provides the legal framework for matters pertaining to space in South Africa. Section 4 of the Space Affairs Act establishes the South African Council for Space Affairs under the Authority of the Minister of Trade and Industry to implement the regulatory, monitoring and registration functions of the Act. South Africa national space legislation has been adopted in accordance with international space treaties.

In order to achieve its objects the Council may –

- advise the Minister on any matter that may have an influence on space affairs;
- hear representations by any person regarding space affairs in the Republic;

Ibid

See Section 231(1) of the Constitution of the Republic of South Africa. See Hermida J. 2004, *Legal Basis for a National Space Legislation*, New York: Kluwer Academic Publishers, p. 144

See Section 231(3), cited in Hermid J., *supra*.

See Section 231(2). Ibid

See Section 231(4) of the Constitution of the Federal Republic of South Africa.

See the South African Council for Space Affairs Report 2006 – 2009, a publication of the Department of Trade and Industry. Available at www.thedti.gov.za

See *Space Science and Technology for Sustainable Development*, a publication of Department of Trade and Instrument, Republic of South Africa, September 2008.

- supervise and implement matters arising from international conventions, treaties and agreements concerning space affairs entered into or ratified by the Government of the Republic;
- issue, amend, suspend or revoke licences;
- encourage persons and authorities involved in the space industry to register with the Council and to apply information regarding capabilities so obtained to enhance and co-ordinate the space industry and its capabilities;
- designate knowledgeable persons from government institutions and the space industry as members of committees of the Council to assist the Council in their performance of its functions;
- further matters leading to the orderly and responsible participation by any person or authority in space affairs;
- subject to section 19, provide for the appropriate and widest possible publication of information concerning the activities of the Council;
- subject to the provisions of the Act, perform any other activity with a view to contributing to the effective achievement of the objects of the Council.

South Africa adopted a licensing system to comply with the authorization and supervision obligations assumed at the international level. A license shall be issued subject to such conditions as the Council may determine for that particular licence, taking into account –

- the minimum safety standards as determined by the Council; and
- the national interests of the Republic; and the international obligations and responsibilities of the Republic.

The Council shall gather, maintain and disseminate the information regarding licenses, according to the provisions of international conventions, treaties and agreements entered into or ratified by the Government

See Section 5(3)

Hermida J. 2004, Legal Basis for a National Space Legislation, New York: Kluwer Academic Publishers, p. 144

See Section 11(2)

of the Republic, or as the Minister may prescribe.

The Space Affairs Act does not establish any substantive decision regarding responsibility and liability. Therefore, absent a specific regulation or the imposition of an express condition, it does not reallocate the liability assumed by the South African government under the international treaties and conventions. However, the Act expressly authorizes the Council and the Minister of Trade and Industry to issue conditions to the license to determine a liability regime. In particular, these liability conditions may determine the risks to be assumed by the licensee and may even limit or exclude the liability of the licensee for damage caused in connection with the activities covered by the license, whether caused by the licensee's fault or not. The conditions may also impose the licensee to give security to meet the obligations that may be incurred. The law is silent as to what type of security it may be required.

It should be noteworthy that the South African Council for Space Affairs has a regulatory function that plays a critical role in shaping space-related activities in that it determines the rules and procedures under which space actors operate. This is intended to establish a predictable environment that is conducive to investment and long-term growth, and allows for an innovative and competitive space industry. The Act mandates the Council to develop regulations envisaged in the Act to regulate, among other things, processes and procedures for licensing, inspection, quality, safety and registration of space interests. The Council is also obliged to monitor and enforce compliance with the provisions of the regulatory instruments.

The law does not contemplate any registration of space objects or the creation of a national space registry. This is because so far South Africa has not launched any space object and it has not had the obligation to provide the United Nations with

Section 11(4)

See Hermida J. 2004, Legal Basis for a National Space Legislation, New York: Kluwer Academic Publishers, p. 146

Ibid

See Section 14

See Hermida J. 2004, Legal Basis for a National Space Legislation, New York: Kluwer Academic Publishers, p. 146

Ibid

See The South African Council for Space Affairs Report 2006 – 2009.

Ibid

Ibid

Opt cit, Hermida J. 2004

information regarding any object launched into outer space in accordance with the Registration Convention.*****

The Space Affairs Amendment Act 64 of 1995 only amended, substituted for or repealed some Sections of the Space Affairs Act 84 of 1993. By its Section 2, the Minister of Trade and Industry is empowered to determine general policy related to space affairs.

The South African National Space Agency Act of 2008 has a preamble to provide for the promotion and use of space and Co-operation in space-related activities, foster research in space science, advance scientific engineering through human capital, support the creation of an environment conducive to industrial development in space technologies within the framework of national government policy, and for that purpose to establish the South African National Space Agency; to provide for the objects and functions of the South African National Space Agency and for the manner in which it must be managed and governed; and to provide for matter's connected therewith.***** It created South African National Space Agency (SANSA) to consolidate the on-going space activities and research under one Agency by 2012 – 2013.*****

PROBLEMS OF ENACTMENT SPACE LEGISLATION IN AFRICA

Africa as a continent faces some challenges that hamper the enactment of national space legislation. One, there is insufficient expertise in the area of space law in Africa. Space law is still a new field of law in the continent. Majority of lawyers do not know anything in that aspect of law; only few lawyers are grounded in the area. This hampers legislation in the area.

Two, there are no institutions in Africa that offer training in the field of space law (with the exception of South Africa). Africans, who had training in the area, (apart from few lucky ones) paid a lot of money to get it, and majority of them are out for greener pasture. This therefore, affects the number of experts in the field.

Three, space law dissemination is still on the low side in Africa. Majority of Africans do not know about the existence of such field of law.

Four, only few countries in Africa have space agencies. Majority of the countries do not have space agencies, and are not really engaged in space activities. So, they do not have any need for space legislation.

***** Ibid

***** See the Preamble of the South African National Space Agency Act NO. 36 2008

***** See the South African Space Industry September 2011 Issue, a publication of Foundation for Space Development, South Africa.

Five, most space activities in Africa are still being carried out by their various government. The countries do not, therefore, see the need for speedy national space legislation since there are no private bodies operating within the countries.

Lastly, majority of the countries in Africa lack effective space policies. Only few like Nigeria, South Africa, etc, have committed space policies.

CONCLUSION AND RECOMMENDATIONS

African countries like Nigeria, South Africa, Algeria, Morocco and Egypt have become active players in space science and technology activities. Some of these countries are beginning to commercialize and privatize some aspects of their space activities. Nigeria and South Africa have found it imperative to guide their space activities and those of private bodies operating within their territory by enacting their national space legislation, thereby fulfilling their obligation under international space law. However, certain factors still hamper this process of having national space legislation in these counties. It is therefore recommended that:

- There is therefore the need for effective space law dissemination in Africa. Study recently carried out by this author reveals that space law dissemination in Nigeria (and by implication, other African countries) is on the low side. Therefore, an organization like Space Policy and Law Dissemination Initiative (SPALDI), established by the author, should be encouraged to properly disseminate space law in Africa.
- Lawyers in Africa should be encouraged to pursue degrees, trainings and expertise in the field of space law. There should be availability of scholarships for Africans that are determined to pursue space law in institutions abroad.
- Space law funded institutions should be established in Africa by the United Nations. More so, the Africa Regional Centre for Space Science and Technology Education in English (ARCSSTEE) should be encouraged and properly funded to establish a curriculum in Space Law.
- Private bodies should be encouraged to participate in space activities in Africa. This will bring about speedy development of national space legislation in the continent.

- Countries in Africa with space agencies should be encouraged by the international community to have their national space legislations.
- Attractive regulatory environment should be created in Africa.

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