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Review of Peaceful Application of Nuclear Energy in International Law

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Abstract

Peaceful application of nuclear energy technology has recognized in regional, bilateral, multilateral and basic principle of International Law. However, there are substantial debates about the scope of peaceful application of nuclear activities, nuclear safety and international safeguards in preventing proliferation of nuclear weapons. The Non-Nuclear Weapon States discuss that international norms recognize all forms of peaceful application of nuclear energy which includes uranium enrichment, reprocessing and other sensitive nuclear fuel making activities. In fact, it is part of permanent right of state parties for peaceful application of nuclear energy, and sensitive nuclear activity is the continuation of non-sensitive nuclear activity. Sensitive nuclear activities should not be considered as a taboo and an excuse to exercise restrictions on inalienable right of parties to use nuclear energy for peaceful purpose because this can be considered to rewrite valid international norms and agreements. Therefore, "each country's choices and decisions in the field of peaceful uses of nuclear energy should be respected without jeopardising their respective fuel cycle policies".

Key words: *Nuclear Energy, International Law, Peaceful Application, Nuclear Weapons, Fuel Cycle Policies*

Introduction: In recent years, there has been found a new or renewed interest in developing nuclear power in both developed and developing countries.¹ According to International Status and Prospects of Nuclear Power reported by the International Atomic Energy Agency [IAEA] on September 2010, there are 29 countries with operating nuclear power plants and about 65 countries without nuclear power plants "are expressing interest in, considering, or actively planning for nuclear power".² Of the 65 countries expressing an interest in the introduction of nuclear power, 21 are in Asia and the Pacific region, 21 are from the Africa region, 12 are in Europe (mostly Eastern Europe) and 11 in Latin America.³ The Arab States of the Middle East have declared an interest in pursuing a joint civilian nuclear programme. On March 2006, Arab League Secretary-General Amr Mousa stated, "the Arab world's quick and decisive entry into the field of peaceful use of nuclear energy is necessary".⁴ In Europe, where nuclear power development has been in a holding pattern for almost two decades, nuclear energy has been the subject of continuous political debate and is now a key

¹A. Adamantiades & I. Kessides. 2009. Nuclear power for sustainable development: Current status and future prospects. Electronic sources: MLA style of citation. <http://www.sciencedirect.com>

² IAEA, 2010, International Status and Prospects of Nuclear Power, Report by the Director General, IAEA Doc. GOV/INF/2010/12-GC(54)/INF/5

³ Ibid.

⁴Peter Crail and Jessica Lasky-Fink, 2008, Middle Eastern States Seeking Nuclear Power, Arms Control Association, online <<http://www.armscontrol.org>

element in the European Union's climate-change policy.⁵ In the United States, where construction of nuclear plants had ceased for decades, presently, there are certified new reactor designs.⁶ China, Japan, South Korea and India are expected to experience the strongest growth in the region.⁷ Indonesia, Vietnam, Thailand, the Philippines and Malaysia are also expressing strong interest in nuclear power.⁸

Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) explicitly recognizes both the inalienable right of Non-Nuclear Weapon States Parties (NNWSP) to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Article I and II, as well as the right of states parties in facilitating and participating in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.⁹

Nonetheless, Article IV of the NPT is still one of the challenging and crucial articles in the treaty which both nuclear and non-nuclear weapon states parties present different and even paradoxical interpretation of the scope of the article. In reality, these contradictory interpretations can eventually lead to serious problems for international community in long term, especially in the field of nuclear disarmament, non-proliferation nuclear weapon and peaceful application of nuclear energy, which are known as three substantial pillars of the NPT treaty.¹⁰ The non-nuclear weapon states parties (NNWSP) to the treaty discuss that Article IV recognizes all forms of peaceful application of nuclear energy including uranium enrichment, reprocessing activities and other sensitive nuclear fuel making activities under the NPT treaty. In fact, the NNWSP claims states parties have the right to use uranium enrichment technology, reprocessing and other sensitive nuclear fuel-making activities (all forms of nuclear energy) because it is part of the continuing right of the states parties for peaceful application of nuclear energy and sensitive nuclear activity is continuation of non-sensitive nuclear activities.

⁵New nuclear plants get go-ahead. 2008. BBC NEWS, 10 January: 1 online <http://news.bbc.co.uk/2/hi/uk_news/politics/7179579.stm> See also Ten UK nuclear power stations by 2020. 2008. The Telegraph, 10 Jan: 1 online < www.telegraph.co.uk/earth/earthnews/3321124/Ten-UK-nuclear-power-stations-by-2020.html>

⁶ See Larry R. Foulke, 2002, "A Perspective: Status and Future of Nuclear Power in the United States" 1[For presentation at the Americas Nuclear Energy Symposium (ANES 2002), October 16, 2002] online <<http://www.ans.org/pi/news/sd/1035997602-presentation.pdf>>

⁷A. Adamantiades &I. Kessides. 2009. Nuclear power for sustainable development: Current status and future prospects. Electronic sources: MLA style of citation. <http://www.sciencedirect.com> (21 September 2009)

⁸ Ibid.

⁹ See Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature July 1, 1968, 21 U.S.T. 483,729 U.N.T.S 161 (entered into force Mar. 5, 1970) [hereinafter NPT].

Article IV of the NPT states:

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty.
2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

¹⁰ See e.g. the ambassador of Ghana to the UN believed that" the three pillars of the NPT, namely nuclear disarmament, non-proliferation and the peaceful uses of nuclear energy can, despite any reservations that may be expressed, be pursued simultaneously"; "Statement by Leslie K. Christian, Ambassador and Permanent Representative of Ghana to the United Nation, At the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons", New York, May 6, 2010, online: united nations <http://www.un.org/en/conf/npt/2010/statements/pdf/ghana_en.pdf> See also Mohammed ElBaradei, the Former President of IAEA Broad of Governors, Treaty on the Non-Proliferation of Nuclear Weapons, 2005 Review Conference, New York, 2 May 2005, online: united nations <<http://www.un.org/en/conf/npt/2005/statements/npt02iaea>>He asserted: "The core of the Treaty on the Non Proliferation of Nuclear Weapons can be summed in two words: "security" and "development". While the States Party to this treaty hold differing priorities and views, I trust that all share these two goals: development for all through advanced technology; and security for all by reducing –and ultimately eliminating- the nuclear threat".

Thus, any action by Nuclear Weapon states parties (NWSP) to the treaty to limit such rights constitutes a violation of the fundamental principles of international law including, inter alia, non-interference in internal affairs of other States. For instances, Islamic Republic of Iran's response to the Package Presented on June 6, 2006 states, 'Development of its peaceful nuclear program is based on its specific and undeniable rights under the NPT. It cannot accept deprivation from its legal rights in development and use of peaceful nuclear energy including the fuel cycle, and continuing research and development of enrichment process as underscored in the NPT and IAEA safeguards.'¹¹

On the other side, the NWSP to the treaty declare that there is no right under the NPT treaty to enrich uranium or separate plutonium from spent nuclear fuel; therefore, they attempt to prevent the assumption of giving all rights and privileges based on inalienable right of all states parties to use nuclear energy for peaceful application under Article IV by allegation of numerous legal loop-holes in Article IV which can eventually lead to proliferation of nuclear weapon through exercising indigenous uranium enrichment and reprocessing technology under NPT and IAEA safeguards. For instance, in 2006, U.S. National Security Strategy frankly introduced a nuclear fuel cycle that produces the fissile material needed to fuel nuclear power plants which can be used in both peaceful and military purposes. Military uses of nuclear energy are essentially related to national security. So, strategy must focus on controlling fissile material with two priority objectives including keeping "states away from acquiring the capacity to produce fissile material suitable for making nuclear weapons and preventing the transfer of fissile material from states that have this capacity to rogue states or terrorists".¹² In 2006, U.S. Senators, Richard Lugar and Evan Bayh, wrote in an article in Chicago Tribune, 'for too long, the Nuclear Non-Proliferation Treaty has been exploited'; therefore, 'the world community must declare that there is no right under the Nuclear Non-Proliferation Treaty to enrich uranium or separate plutonium from spent nuclear fuel. No new country should be able to pursue uranium enrichment or plutonium separation, even if claiming to do so for civil nuclear energy purposes.'¹³ In April 2010, the U.S. Nuclear Posture Review Report declared that new strategy tighter restrictions had to be placed on the transfer of dual-use enrichment and reprocessing technologies to the NNWSP.¹⁴

Therefore, it is necessary to reinterpret the Article IV of the NPT treaty for determination and delimitation of the scope of peaceful application of nuclear energy with regard to Article 31 of the Convention on the Law of Treaties (VCLT) which indicates that treaty interpretation should be with 'good faith in accordance with the ordinary means to be given to the terms of the treaty in their context and in the light of its object and purpose'.¹⁵ In this respect, Article 32 of the VCLT upholds the use of 'supplementary means of interpretation' such as "preparatory work of the treaty and the circumstances of its conclusion, in order to confirm the meaning resulting from the application of article 31 or to determine the meaning when the interpretation according to article 31: (a) leave the meaning ambiguous or obscure, or (b) lead to a result which is manifestly absurd or unreasonable".¹⁶

I. United Nations Charter And Peaceful Application Of Nuclear Energy: United Nations Charter has not mentioned the peaceful application of nuclear energy directly, but there are several articles and international principles accepted by UN Charter which encourages states parties to use nuclear energy technology for peaceful purposes, to prevent the proliferation of nuclear weapons and to

¹¹ See also IAEA Doc. INFCIRC/685 (Information Circular), 2006, "Communication dated 6 November 2006 received from the Permanent Mission of the Islamic Republic of Iran to the Agency" (8 November 2006) online: <<http://www.iaea.org>>

¹² See Michael Spies, "Iran and the limits of the Non-Proliferation regime" (2006) 22:401 AM. U. INT'L L. REV. 402

¹³ Senators Richard Lugar and Evan Bayh, 2006, "A Nuclear Fuel Bank Advocated" Chicago Tribune online <<http://articles.chicagotribune.com>>

¹⁴ See United States Department of Defense, "Nuclear Posture Review Report" (April 2010), at 10. Online <<http://www.defense.gov/npr/>>. But see Mohamed ElBaradei, "Towards a safer world" The Economist (16 October 2003) online: The Economist <<http://www.economist.com/node/2137602>> "[F]or example, it is hard to justify restrictions on exporting "hot cell" technology that could be used for plutonium separation when the same equipment is vital for producing radioisotopes used in modern medicine".

¹⁵ Vienna Convention on the Law of Treaties, (23 May 1969) entered into force on January 27, 1980. 1155 U.N.S.T 331. See also VCLT, Art. 31, para. 1.

¹⁶ VCLT, Art. 32.

eliminate nuclear stockpiles and other nuclear explosive devices. In fact, the dropping of two atomic bombs on Hiroshima and Nagasaki at the close of World War II expanded global concern over the proliferation of nuclear weapons.¹⁷ World witnessed the use of a weapon unprecedented in its destructive power which undoubtedly made the use of atomic bombs dangerous and irrevocably changed the nature of war.¹⁸ It was determined that nuclear weapons arsenals have the visible and recognizable potential of destroying an essential portion of the earth's population and catastrophic contaminating of vast areas and producing unforeseeable and uncontrollable biological and environmental consequences.¹⁹ Therefore, the United Nations Charter recognized the maintenance of a peace which requires the reduction of national armaments to the lowest point consistent with national safety and enforcement by common action of international obligations.²⁰ In this respect, the proliferation of nuclear weapons can be considered as destructive power leading to destroying an essential portion of the earth's population, catastrophic contaminating of vast areas and producing unforeseeable and uncontrollable biological and environmental consequences²¹ while peaceful application of nuclear energy technology can be considered as positive step to meet energy needs, improve health, combat poverty, protect environment, develop agriculture, manage the use of water resources and optimize industrial processes.²²

A. The Right to Development²³ The preamble of UN Charter recognizes “the right to development” of states parties “to promote social progress and better standards of life in larger freedom” and to ratify “faith in the fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small in a peaceful atmosphere.”²⁴ Article 22 (1) of the African Charter on Human and Peoples’ Rights as an individual and collective right declares²⁵:

1. All people shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind.
2. States shall have the duty, individually or collectively, to ensure the exercise of the right to development.

Article 1 of Declaration on the Right to Development (1986) defines such right as “an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human

¹⁷ Meyrowitz, Elliott I. The law of the war and nuclear weapons: P 227; BROOKLYN J. INT’L L; VOL. IX:2;

¹⁸ Boutros- Ghali, The nuclear non-proliferation treaty and global non-proliferation regime: A U.S. policy agenda;; BOSTON UNIVERSITY INTERNATIONAL LAW JOURNAL- VOL: 407; P 408

¹⁹ Ibid.

²⁰ The preamble of UN charter declares: We the peoples of the United Nations determined:

- to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and
- to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and
- to establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and
- to promote social progress and better standards of life in larger freedom,

²¹ Boutros- Ghali, The nuclear non-proliferation treaty and global non-proliferation regime: A U.S. policy agenda. BOSTON UNIVERSITY INTERNATIONAL LAW JOURNAL- VOL: 407; P 408

²² See 2010 Review Conference of the Parties to the treaty on the Non-Proliferation of Nuclear Weapons, (27 May 2010) Draft Final Document, Part I Review of the operation of the Treaty, as provided for in its article VIII (3), taking into account the decisions and the resolution adopted by the 1995 NPT Review and Extension Conference and the final Document of the 2000 Review Conference. UN Doc. NPT/ CONF. 2010/L.2

²³ The “ Declaration on the Right to Development “ proclaimed such right as a definitive individual and collective right by the United Nations in 1986 which was adopted by the United Nations General Assembly resolution 41/128.

²⁴ See. United Nations Charter, preamble.

²⁵ the African Charter on Human and Peoples’ Rights

rights and fundamental freedoms can be fully realized”.²⁶ In the Declaration on the Right to Development (1986), the term “development” has been defined as “comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom”.²⁷ In fact, “right to development” in this concept is a part of “right of self-determination” which means all peoples have the right freely to determine their political status and to pursue their economic, social and cultural development, full and complete sovereignty over all their natural wealth and resources.²⁸ According to the Article 4 (2) of Declaration on the Right to Development it is required that states parties, especially the developed countries, to take steps, individually and collectively, to formulate international development policies with a view to facilitating the full realization of the right to development:²⁹

Sustained action is required to promote more rapid development of developing countries. As a complement to the efforts of developing countries, effective international co-operation is essential in providing these countries with appropriate means and facilities to foster their comprehensive development.

B. The Right of Self-Determination The self-determination of people is listed in the Article 1(2) of the United Nations Charter as a general purpose of the United Nations:

To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace.³⁰

Article 55 of the United Nations Charter is known as a specific purpose of the United Nations in the promotion of economic and social cooperation: “with a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples.”³¹ Moreover, Article 1 (1) (2) of International Covenant on Economic, Social, and Cultural Rights (1966) declares³²:

1. All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.
2. All peoples may, for their own ends, freely dispose of their natural wealth and resources without prejudice to any obligations arising out of international economic co-operation, based upon the principle of mutual benefit, and international law. In no case may a people be deprived of its own means of subsistence.

Principle (2) of the Rio Declaration on Environment and Development (1992) also recognizes “States Sovereignty” to exploit their own natural resources pursuant to their own environmental and developmental policies:³³

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Although United Nations Charter has not mentioned directly about peaceful uses of nuclear energy, there are many principles in international law accepted by UN Charter that not only encourage

²⁶ See the Declaration on the Right to Development, Art. 1

²⁷ See the Declaration on the Right to Development, Preamble

²⁸ See The International Covenant on Economic, Social and Cultural Rights, Art. 1

²⁹ See the Declaration on the Right to Development, Art 4 (1)

³⁰ See UN Charter, Art. 1 (2)

³¹ See UN Charter, Art. 55

³² International Covenant on Economic, Social, and Cultural Rights was signed on December 16, 1966 and entered into force on January 3, 1976.

³³ See the Rio Declaration on Environment and Development. Art.2

states parties to peaceful application of nuclear energy, but also their decisions in the field of peaceful uses of nuclear energy should be respected in accordance with the principle of non-interference in domestic affairs of other states.

II. United Nations General Assembly Resolutions and Peaceful Uses of Nuclear Energy: United Nations General Assembly resolutions have had significant role in promoting peaceful applications of nuclear energy technology and defining the scope. The UN General Assembly resolutions about nuclear energy can be categorized into three parts: disarmament, prevention of proliferation of nuclear weapons and peaceful application of nuclear energy.³⁴ The UN General Assembly in resolution 1515 (XV) declares that “one of the principle objectives of the United Nations is to promote higher standards of living and that Member States have pledged themselves to take joint and separate action to achieve this purpose”: therefore, “the primary duty of the United Nations is to accelerate the economic and social advancement of the less developed countries of the world, contributing to safeguarding their independence and helping to close the gap in standards of living between the more advanced and the less developed countries.”³⁵ Peaceful application of nuclear energy and related technologies were fundamental objectives of the establishment of UN General Assembly because of several substantial factors and global needs: 1) diversification of fuel sources, 2) reduction of dependence on fossil fuel imports and develops immunity to power disruptions, 3) mitigation of climate changes by reducing greenhouse gas emissions and air pollution, 4) mitigation of volatile fuel costs, and 5) various uses of nuclear energy in agriculture, medicine and electricity.³⁶ The first session of UN General Assembly was convened on 10 January 1946 in the Westminster Central Hall in London that included representative of 51 nations.³⁷ On 24 January 1946, the UN General Assembly enacted the first resolution in the field of nuclear energy with title of “Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy”.³⁸ In accordance with the UN General Assembly resolution, the Commission shall make specific proposals:³⁹

- (a) For extending between all nations the exchange of the basic scientific information for peaceful ends.
- (b) For control of atomic energy to the extent necessary to ensure its use only for peaceful purposes.
- (c) For the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.
- (d) For effective safeguards by way of inspection and other means to protect States compliance against the hazards of violations and evasions.

Therefore, the essential purpose of the UN Atomic Energy Commission (UNAEC) was to prepare a proposal for the elimination of nuclear weapons and the use of nuclear energy for peaceful purposes under international control.⁴⁰ The fifth session of UN General Assembly expressly declared ‘inability to achieve agreement among nations on the elimination of atomic weapons under a system of effective

³⁴ See Emily Bailey et al, Programme for Promoting Nuclear Non-Proliferation Briefing Book, 6d ed. (Mounbatten Center for International Studies, 2000) 50

³⁵ United Nations. 1960. Concerted action for economic development of economically less developed countries. General Assembly Official Records. Supplement No. 21,29 (A/ 4648) New York: United Nations

³⁶ See A. Adamantiades &I. Kessides. 2008. Nuclear power for sustainable development: Current status and future prospects. Journal of Energy Policy, Volume 37, Issue 12. 5149-5166 (online) Science Direct: <http://www.sciencedirect.com> (12 December 2009)

³⁷ See Wikipedia. United Nations General Assembly. (online) http://en.wikipedia.org/wiki/United_Nations_General_Assembly

³⁸ United Nations. 1946. Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy. General Assembly Official Records. Supplement No. C.1 (A/12) New York: United Nations

³⁹ Ibid.

⁴⁰ See Emily Bailey et al, Programme for Promoting Nuclear Non-Proliferation Briefing Book, 6d ed. (Mounbatten Center for International Studies, 2000) 50 See also See Robert Zarate, “The NPT, IAEA Safeguards and Peaceful Nuclear Energy: An “Inalienable Right,” But Precisely To What?” (2007) 5 [unpublished, achieved at Nonproliferation Policy Education Center] online < <http://www.npolicy.org/node/977>>.

international control of atomic energy and on the regulation and reduction of other armaments and armed forces".⁴¹ This was due to radical differences between the United States and the Soviet Union over how to proceed.⁴² On 4 November 1954, the UN General Assembly resolution announces, 'the benefits arising from the momentous discovery of atomic energy should be placed at the service of mankind' desiring "to promote energetically the use of atomic energy to the end that it will serve only the peaceful pursuits of mankind and ameliorate their living conditions" and "to assist in lifting the burdens of hunger, poverty and disease" and thus "all nations should co-operate in promoting the dissemination of knowledge in the realm of nuclear technology for peaceful ends".⁴³ Hence, the resolution suggested the negotiations for establishment of an International Atomic Energy Agency should be continued without delay "to facilitate the use by entire world of atomic energy for peaceful purpose and to encourage international co-operation in the further development and practical application of atomic energy for the benefit of mankind".⁴⁴ The resolution 1148 (XII) adopted by UN General Assembly on 14 November 1957 for the cessation of the production of fissionable material for weapons purposes [by nuclear weapon states parties] and the complete devotion of future production of fissionable material to non-weapons purposes under effective international control.⁴⁵ In fact, the UN General Assembly declared the stocks of fissionable material had to be only for peaceful and non-weapons purposes under effective international control.⁴⁶

This was important because nuclear weapons states thought they have the right to produce fissionable material for military purposes and manufacture the nuclear weapons and other nuclear explosive devices. Moreover, the UN General Assembly resolution 2092 (XX) on the "conversion to peaceful needs of the resources released by disarmament" stresses that all the resources released by disarmament should be utilized for the purpose of economic and social development, in particular, for the developing countries.⁴⁷ The UN General Assembly resolution 2457 (XXIII) declares essential feature of the treaty on the non-proliferation of nuclear weapon that provides potential benefits from any peaceful application of nuclear explosions will be made available under appropriate international observation and through appropriate international procedures.⁴⁸ In this respect, International Atomic Energy Agency (IAEA) has substantial role "to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world."⁴⁹ On 7 December 1970, the UN General Assembly resolution 2661 (XXV) used the term "inalienable right" of states parties to use nuclear energy for peaceful purposes:⁵⁰

- Noting that all States has the inalienable right to develop research, production and the use of nuclear energy for peaceful purposes without discrimination,
- Aware of the development of new techniques for uranium enrichment,
- Considering that these new techniques may contribute to the promotion of the use of nuclear energy for peaceful purposes,

⁴¹ See Emily Bailey et al

⁴² Ibid.

⁴³ United Nations. 1954. Regulation, limitation and balanced reduction of all armed forces and all armaments: report of the Disarmament Commission; Conclusion of an international convention (treaty) on the reduction of armaments and the prohibition of atomic, hydrogen and other weapons of mass destruction. General Assembly Official Records. Supplement No. 20.68 (A/2779) New York: United Nations

⁴⁴ Ibid.

⁴⁵ United Nations. 1957. Regulation, limitation and balanced reduction of all armed forces and all armaments; conclusion of an international convention (treaty) on the reduction of armaments and the prohibition of atomic, hydrogen and other weapons of mass destruction. General Assembly Official Records. Supplement No. 24 (A/3729 and corr.1) New York: United Nations

⁴⁶ Ibid.

⁴⁷ United Nations. 1965. Conversion to peaceful needs of the resources released by disarmament. General Assembly Official Records. Supplement No. 44 (A/6195) New York: United Nations

⁴⁸ United Nations. 1957. Report of the International Atomic Energy Agency. General Assembly Official Records. Supplement No. 15 (A/L.552/Rev.2) New York: United Nations

⁴⁹ Ibid.

⁵⁰ United Nations. 1970. General and Complete Disarmament. General Assembly Official Records. Supplement No. 27 (A/8198) New York: United Nations

- Considering also that the material produced via the new techniques may be diverted to weapons unless subject to effective safeguards,
- Noting that the International Atomic Energy Agency is engaged in the study of safeguards under the treaty on the non-proliferation of nuclear weapons,
- Requests the International Atomic Energy Agency to pay attention also to required safeguards with respect to new techniques for uranium enrichment.

The UN General Assembly resolution 3478 (XXX) declares that “the potential benefits of any peaceful application of nuclear explosions should be available to nuclear as well as non-nuclear States, in conformity with the provisions of the Treaty on the Non-Proliferation of Nuclear Weapons, in such a way as to exclude any possibility of peaceful nuclear explosions being used for purposes incompatible with the complete and general prohibition of nuclear weapon tests and non-proliferation of nuclear weapon.”⁵¹ The UN General Assembly resolution 31/75 recognizes “the necessity of effective international safeguards in order to ensure that peaceful application of nuclear energy will not lead to further proliferation of nuclear weapons or other nuclear explosive devices”, but this cannot be an allegation for nuclear weapon states to prevent the assumption of giving all rights and privileges based under inalienable right of states parties for peaceful application of nuclear energy⁵². In this regard, the resolution also recognizes that states accepting effective non-proliferation restraints have a right to full access to the peaceful uses of nuclear energy and underlines the importance of all efforts to increase the availability of energy, particularly for the needs of developing countries.⁵³

On 8 December 1977, the UN General Assembly resolution 32/50 recognized the legitimate right of states to develop or acquire technology for the peaceful uses of nuclear energy in order to accelerate their economic development.⁵⁴ On this base, the resolution affirms that “the responsibility of states that are advanced in the nuclear field to promote the legitimate nuclear energy needs of the developing countries by participating in the fullest possible transfer of nuclear equipment, materials and technology under agreed and appropriate international safeguards applied through the International Atomic Energy Agency on non-discriminatory basis in order to prevent effectively proliferation of nuclear weapons.”⁵⁵

The UN General Assembly resolution 33/91H prevented states parties to produce fissionable material for weapons purposes while it is not mentioned any restriction for production of fissionable material for peaceful purposes:⁵⁶

Considering that the acceptance by all States of binding and verifiable controls in the form of full scope safeguards, on a non-discriminatory basis, on all production of fissionable material, so as to ensure that it is not used for nuclear weapons or other nuclear explosive devices, would contribute towards the efforts to promote non-proliferation, to limit further production of nuclear weapons and to facilitate nuclear disarmament.

The UN General Assembly Resolution 2373 (XXII) adopted during the peak of the Cold War defines the scope of the peaceful application of nuclear energy technology. The resolution supports the right of all signatories “to engage in research, production and use of nuclear energy for peaceful purpose and [NNWSP] will be able to acquire source and special fissionable material, as well as equipment for the processing, use and production of nuclear energy for peaceful purpose”:⁵⁷

⁵¹ United Nations. 1975. Conclusion of a treaty on the complete and general prohibition of nuclear weapon tests. General Assembly Official Records. Supplement No. 122 (A/10447) New York: United Nations

⁵² United Nations. 1976. Implementation of the conclusions of the 1st Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. General Assembly Official Records. Supplement No. 116 (A/31/388) New York: United Nations

⁵³ Ibid.

⁵⁴ United Nations. 1977. Peaceful use of nuclear energy for economic and social development. General Assembly Official Records. Supplement No. 14 (A/32/L.15/Rev.1 and Rev.1/Add.1) New York: United Nations

⁵⁵ Ibid.

⁵⁶ United Nations. 1978. Prohibition of the production of fissionable material for weapons purposes. . General Assembly Official Records. Supplement No. 47 (A/33/435, A/33/L.33) New York: United Nations

⁵⁷ It was annexed to the resolution. See Treaty on the Non-Proliferation Nuclear Weapons, GA Res. 2373 (XXII), UN GAOR, 12 June 1968, Supp. No 1, UN Doc. A/S- 10/1)

Convinced that, pursuant to the provisions of the treaty, all signatories have the right to engage in research, production and use of nuclear energy for peaceful purpose and will be able to acquire source and special fissionable material, as well as equipment for the processing, use and production of nuclear energy for peaceful purposes.

III. The Treaty on the Non-Proliferation of Nuclear Weapons (“Npt”): Treaty on the Non-proliferation of Nuclear Weapons (“NPT”) has been the centerpiece of multilateral efforts at arms control.⁵⁸ During the peak of the Cold War, the UN General Assembly under resolution 2373(XXII) adopted the NPT on 12 June 1968.⁵⁹ In the Preamble of resolution 2373(XXII), the UN general Assembly expressly declared with regard to the urgency and great importance of preventing the spread of nuclear weapons and of intensifying international cooperation in the development of peaceful application of atomic energy NPT provisions must be recognized by states parties.⁶⁰ In addition, in accordance with the paragraph (4) of resolution 2373, all signatories to the treaty must have the right to engage in research, production and use of nuclear energy for peaceful purpose and will be able to acquire source and special fissionable materials, as well as equipment for processing, use and production nuclear material for peaceful purposes.⁶¹ The NPT Treaty created after several unsuccessful attempts to eliminate all nuclear weapons stockpile and other nuclear devices.⁶² In fact, the UN General Assembly adopted resolution 2373 to establish the United Nations Atomic Energy Commission (UNAEC) with purpose of elimination of nuclear weapons and application of nuclear energy for peaceful purposes in 1946.⁶³ Then, the United State submitted a new proposal in this field, although it was not accepted by Soviet Union because of the radical differences between the two countries over the procedure.⁶⁴ On 8 December 1953, President Eisenhower submitted a proposal for peaceful application of nuclear energy technology that was known as “Atom for Peace”.⁶⁵ Eisenhower’s proposal tried to create new perspective in the field of nuclear energy while stressing the most beneficial uses of nuclear energy for peaceful purposes and encouraging international cooperation in this field.⁶⁶ It should be noted that Eisenhower’s proposal was not related to disarmament plan and elimination of all nuclear stockpiles in nuclear weapon states parties.⁶⁷ The result of international negotiations on the issue of implementing the “Atoms for Peace” was the establishment of International Atomic Energy Agency (IAEA) with three main goals: non-proliferation nuclear weapon, assistant and encouraging non-nuclear weapons states to use nuclear energy for peaceful purpose and disarmament.⁶⁸

Nonetheless, the IAEA’s role could not effectively eliminate and reduce the stockpiles of fissile material in previous nuclear crisis neither in the Soviet Union nor in the United States.⁶⁹ In addition,

⁵⁸ Treaty on the Non-Proliferation of Nuclear Weapons, opened for signature July 1, 1968, 21 U.S.T. 483,729 U.N.T.S 161 (entered into force Mar. 5, 1970) [hereinafter NPT].

⁵⁹ See Treaty on the Non-Proliferation Nuclear Weapons, GA Res. 2373 (XXII), UN GAOR, 12 June 1968, Supp. No 1, UN Doc. A/S- 10/1

⁶⁰ See Robert Zarate, “The NPT, IAEA Safeguards and Peaceful Nuclear Energy: An “Inalienable Right,” But Precisely To What?” (2007) [unpublished, achieved at Nonproliferation Policy Education Center] online < <http://www.npolicy.org/node/977>

⁶¹ See GA Res. 2373 (XXII), UN GAOR.

⁶² See Maurice Andem, “The Treaty on the Non-Proliferation of Nuclear Weapons (NPT): Some reflections in the light of North Korea’s refusal to all international inspection of its nuclear facilities” (1995) 64 *Nordic Journal of International Law*. 576

⁶³ See Emily Bailey et al, Programme for Promoting Nuclear Non-Proliferation Briefing Book, 6d ed. (Mounbatten Center for International Studies, 2000) 50

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid. The authors also say: “Neither did membership of the IAEA place any obligation on a state to: refrain from making nuclear weapons (as France did in 1960) or exploding a nuclear device (as India did in 1974); accept safeguards on its own nuclear activities; or require that safeguards be applied to its nuclear exports”. In

Eighteen National Disarmament Committee (ENDC) which was formed in accordance with UN General Assembly resolution 1722 (XVI) with the purpose of general and complete disarmament under an effective international control was failed primarily due to a lack of trust and goodwill between the United States and the Soviet Union.⁷⁰ In the history of NPT conclusion, ‘Irish Resolution’ was end of nuclear disarmament dream and move towards pragmatic and realistic ways by international community which was the substantial purpose of the NPT treaty, arms control.⁷¹ In ‘Irish Resolution’, the UN General Assembly called for measures to limit the spread of nuclear weapons to additional countries and for all states to refrain from transfer or acquisition of such weapons.⁷² However, the provisions of resolution were not exercised until after China nuclear detonation in October 1964.⁷³ China nuclear detonation led to a change in the plan by international community to conclude a treaty to prevent proliferation of nuclear weapons as an urgent priority.

Therefore, the negotiations were revisited, but in accordance with UN General Assembly Resolution (2028) in 1965 which determined three main principles for the NPT treaty: 1) the Treaty should not have any loop-holes which may permit nuclear weapon states parties or non-nuclear weapon states parties to manufacture, use or proliferate nuclear weapons in any form, 2) the Treaty must contain an acceptable balance regarding the rights and obligations of both nuclear and non-nuclear weapon states parties, and 3) the last goal of the Treaty should be the achievement of general and complete nuclear disarmament.⁷⁴ Although peaceful application of nuclear energy has not been articulated in this resolution, shortly after that, in Resolution 2156 (XXI), General Assembly decided to convene a conference of non-nuclear weapons states to consider “how can nuclear devices be used for exclusively peaceful purpose?”⁷⁵ The first principle is related to the language of non-proliferation regime that should be “avoid of any loop-holes which might permit nuclear or non-nuclear powers to

fact, nuclear weapon disarmament and the peaceful application of nuclear energy were “marginal” issues for drafter of the NPT, though is always stated NPT contains three essential pillars which includes non-proliferation of nuclear weapon, disarmament and peaceful uses of nuclear energy, but in reality the main goal of NPT was non-proliferation of nuclear energy. Nuclear weapon disarmament and peaceful uses of nuclear energy can be stated as two essential sub-goals of the NPT.

⁷⁰ See Robert Zarate, “The NPT, IAEA Safeguards and Peaceful Nuclear Energy: An “Inalienable Right,” But Precisely To What?” (2007) 9 [unpublished, achieved at Nonproliferation Policy Education Center] online < <http://www.npolicy.org/node/977>>. But that was not the first time: on June 1946, the United States introduced the “Baruch Plan” to the United Nations Atomic Energy Commission to relinquish its nuclear arsenal. See Helen M. Cousineau, “The Nuclear Non-Proliferation Treaty and Global Non-Proliferation regime: A U.S. Policy Agenda” (1994) 12:407 Boston University International Law Journal. 410

⁷¹ In response to the question of “why arms control?”, Shirley Scott believes that “In comparison to the Covenant of the League of Nations, the UN Charter did not make much reference to disarmament. This is because, though many after World War I believed that the war had been caused by the prewar arms race, the dominant belief was that World War II could have been avoided if the great powers had maintained, and been prepared to use, adequate military force”. See Shirley V. Scott, *International Law in World Politics* (London: Lynne Rienner Publishers, 2004) 191

⁷² “Irish Resolution” was in response of the question “How to handle nuclear weapon?” On September 1958, The Irish Foreign Minister, Frank Aiken introduced this idea that it is necessary to conclude an international agreement to put a ceiling on the number of nuclear weapon states to the existing three (the US, USSR and UK, as of 1958) In return, NNWS was required not to manufacture, purchase, receive or possess nuclear weapon whereas NWS not to supply nuclear weapons to NNWS. See Xinjun Zhang, “ The Riddle of “ Inalienable Right” in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons International Ambiguity, online (2006) 5 Chinese Journal of International Law. 3 < <http://chinesejil.oxfordjournals.org/content/5/3/647.full>>. See also Emily Bailey et al, Programme for Promoting Nuclear Non-Proliferation Briefing Book, 6d ed. (Mounbatten Center for International Studies, 2000) 5

⁷³ See Robert Zarate, “The NPT, IAEA Safeguards and Peaceful Nuclear Energy: An “Inalienable Right,” But Precisely To What?” (2007) [unpublished, achieved at Nonproliferation Policy Education Center] online < <http://www.npolicy.org/node/977>>

⁷⁴ See Emily Bailey et al, Programme for Promoting Nuclear Non-Proliferation Briefing Book, 6d ed. (Mounbatten Center for International Studies, 2000) 5

⁷⁵ See Report of the International Atomic Energy Agency, GA Res. 2156 (XXI), UN GAOR, 22 November 1966, Supp. No. 14, UN Doc A/L.499 Rev.1, part B, para. 2 (c)

proliferate, directly or indirectly, nuclear weapons in any form”.⁷⁶ Therefore, Article I and II of NPT treaty introduced as the basic obligations for nuclear and non-nuclear states to prevent the proliferation of nuclear weapons because loop-holes could be applied by NNWS through transferring nuclear weapons or other nuclear explosive devices to any recipient state directly or indirectly, or by assisting, encouraging, or inducing NNWS to manufacture or acquire nuclear weapons or other nuclear explosive devices.⁷⁷ Moreover, the loop-hole of the treaty could also be applied by NNWS through receiving the transfer from any transferor of nuclear weapons or other nuclear explosive devices directly or indirectly, or by manufacturing, acquiring and seeking nuclear weapons or receiving any assistance in the manufacturing of nuclear weapons or other nuclear explosive devices.⁷⁸ During the NPT negotiations, substantial debate was raised on issues relating to preventing the acquisition and manufacturing of a nuclear weapon in the first step and prevention of the transfer of a nuclear weapon from one state to another in the second step.⁷⁹ Therefore, Article I and II of the NPT were designed to stop potential approaches which can eventually lead to the proliferation of nuclear weapons.

The second principle of NPT stated ‘to maintain balance between rights and obligations of states parties to the treaty’.⁸⁰ The draft of NPT tried to reach three essential purposes: (a) the treaty must be a step towards the achievement of general and complete disarmament in short-term diplomatically, (b) The treaty must able to ensure all NNWS’s needs and claim in the field of peaceful application of nuclear energy, and (c) The treaty must be able to stop proliferation of nuclear weapons and to convince NNWS to forbear from the acquisition of nuclear weapons.⁸¹ The recent purpose was due to NNWS’s belief that “they have the right to manufacture nuclear weapons, and their refrain from manufacturing these weapons are based on voluntary and temporary decision”.⁸² In these

⁷⁶ See Non-Proliferation of Nuclear Weapons, GA Res. 2028 (XX), UN GAOR, 19 November 1966, Supp. No 106, UN Doc. A/6097 and Corr. 1

⁷⁷ See NPT, supra note 1, art. I (By article I, NNWS undertook “not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon States to manufacture or otherwise acquire nuclear weapons or other nuclear explosive, or control over such weapons or explosive devices”).

⁷⁸ Ibid. art. II (By article II, non-nuclear weapon states undertook “not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices”).

⁷⁹ See Xinjun Zhang, “The Riddle of “Inalienable Right” in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons: International Ambiguity, online (2006) 5 Chinese Journal of International Law. 3 <<http://chinesejil.oxfordjournals.org/content/5/3/647.full>>.

⁸⁰ See Non-Proliferation of Nuclear Weapons, GA Res. 2028 (XX), UN GAOR, 19 November 1966, Supp. No 106, UN Doc. A/6097 and Corr. 1

⁸¹ General Assembly Resolution 1756 (XV) called upon “Powers not possessing such weapons, on a similar temporary and voluntary basis, to refrain from manufacturing these weapons and from otherwise attempting to acquire them”. See Prevention of the wider dissemination of nuclear weapon, GA Res. 1756 (XV), UN GAOR, 20 December 1960, Supp. No 73, UN Doc. A/4680. See also Xinjun Zhang, “The Riddle of “Inalienable Right” in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons: International Ambiguity, online (2006) 5 Chinese Journal of International Law. 3 <<http://chinesejil.oxfordjournals.org/content/5/3/647.full>>. He believes “By using the wording “on ... temporary and voluntary basis”, the resolution implied that NNWS did have the right of manufacturing nuclear weapons.”

⁸² This is an undeniable problem in the NPT treaty. Shirley Scott believes that the NPT provisions were “obviously inequitable”, because under article II NNWS pledged never to become nuclear powers and under article III they undertook to accept IAEA safeguards to verify their compliance with the treaty. In return, under article VI NNWS undertook “to pursue negotiation in good faith on effective measures relating to cessation of nuclear of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control”. But, the failure of the NNWS to comply with their obligations under article VI has been a source of “ongoing dissatisfaction within the regime”. See Shirley V. Scott, *International Law in World Politics* (London: Lynne Rienner Publishers, 2004) 194. In reality, nuclear weapons will give precautionary power to the states parties against foreign enemy. Iraq and North Korea

circumstances, Article IV was designed as a symbol of civilian use of nuclear energy technology with two substantial roles: (a) Article IV must be able to ensure all NNWSP's claims and needs in the field of peaceful application of nuclear energy [Positive Role], and (b) Article IV must be able to persuade NNWSP to stop further acquisition of nuclear weapons [Negative Role]. The Article IV was a result of "grand bargaining" between NNWSP and NWSP that under Article II of treaty, NNWSP pledge never to become nuclear powers and under obligations of Article III of the treaty they undertook to accept IAEA safeguards to verify their compliance with the treaty. In return, NNWSP are entitled to use the potential benefits from peaceful application of nuclear energy at a low charge and on a non-discrimination basis.⁸³

During the negotiations of the treaty, the scope of Article IV was one of challenging debates among states delegations. NNWSP's delegations tried to prevent any improper restrictions on the peaceful applications of nuclear energy by a wide scope of prohibited activities. For instance, Swiss delegation believed that some sensitive nuclear activities such as uranium enrichment, reprocessing activities, plutonium separation for peaceful application and other nuclear fuel-making are not in the scope of prohibited activities which can lead to manufacture or acquisition of nuclear weapons.⁸⁴ From the foregoing, NNWSP's proposal for revising Article IV of the 1967 draft was announced thus "we base ourselves on the assumption that a treaty... should enable [NNWSP] to develop their peaceful atomic industries and all forms of the peaceful use of nuclear energy".⁸⁵ Furthermore, during the negotiations for NPT draft, Soviet Union suggested that the proposal for the manufacturing of nuclear weapon should be prohibited under Article II, but the proposal was rejected by NNWSP's delegations because it could lead to more improper restriction on the peaceful application of nuclear energy by a wide scope prohibited activities.⁸⁶ General Assembly Resolution 2373 (XXII) adopted during the peak of the Cold War supported the right of all signatories "to engage in research, production and use of nuclear energy for peaceful purpose and [NNWSP] will be able to acquire, source for special fissionable material, as well as equipment for the processing, use and production of nuclear energy for peaceful purpose".⁸⁷

A. International Rights and Obligations of States Parties Under Provisions of the Npt: The NPT treaty classifies states parties into two categories: (1) Nuclear Weapon States Parties ("NWSP") and (2) Non-Nuclear Weapon States Parties ("NNWSP").⁸⁸ According to the Article IX of NPT, a nuclear weapons state party is defined as "one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967".⁸⁹ Five states parties met this definition: the United States, the Soviet Union, the UK, France and China.

A.1. Nuclear Weapon States Parties' obligations to the NPT

The basic obligations of each nuclear weapon states party (NWSP) to the NPT treaty are stipulated in Article I of the treaty:⁹⁰

case can be good example in this respect. The point is, Did U.S. attack to Iraq, if they had nuclear weapons like North Korea? Or, Did U.S accept diplomatic negotiation with North Korea, if they had no nuclear weapons? Kenneth Waltz believed that "... deterrence has worked 100 percent of the time... So sleep well". See Scott Sagan et al, "A Nuclear Iran: Promoting Stability or Courting Disaster?" (2007) 60 *Journal of International Affairs*. 138 Therefore, it is obvious that NNWSP seek to manufacture nuclear weapons unless International Law designs new tools to reduce potential trend of NNWSP to manufacture nuclear weapon.

⁸³ See Shirley V. Scott, *International Law in World Politics* (London: Lynne Rienner Publishers, 2004) 193

⁸⁴ Xinjun Zhang, "The Riddle of "Inalienable Right" in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons: International Ambiguity, online (2006) 5 *Chinese Journal of International Law*. 3 <<http://chinesejil.oxfordjournals.org/content/5/3/647.full>>.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ See Treaty on the Non-Proliferation Nuclear Weapons, GA Res. 2373 (XXII), UN GAOR, 12 June 1968, Supp. No 1, UN Doc. A/S- 10/1)

⁸⁸ See NPT. Art. I and II

⁸⁹ See NPT, Art. IX

⁹⁰ See NPT. Art. I

Each nuclear weapon state party to the treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly, and not in any way to assist, encourage or induce any non-nuclear weapon state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices.

As it is seen from the above, the nuclear weapon states parties should not transfer any nuclear weapons and other nuclear explosive devices to other states parties, especially non-nuclear weapon states parties.⁹¹ Moreover, the nuclear weapons states should not assist, encourage or induce any non-nuclear weapon states parties to manufacture or acquire any forms of nuclear weapons.⁹² There are no differences between non-nuclear weapon states parties generally. In fact, it can be stated that NNWS who had not signed the NPT are potentially more dangerous than NNWS to the treaty. One of the most challenging obligations of NWSP to the NPT treaty is related to Article VI which is about full disarmament and elimination of all nuclear weapon stockpiles and other nuclear explosive devices by NWSP in a good faith.⁹³

Each of the parties to the treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

The failure of the nuclear weapon states in complying with their obligations under article of VI has always been a source of ongoing dissatisfaction within the regime.⁹⁴ In this respect, 2010 Review Conference of the Parties to the Treaty on the Non-proliferation of Nuclear Weapon declared:⁹⁵

The Conference notes the reaffirmation by the nuclear weapon states of their unequivocal undertaking to accomplish, in accordance with the principle of irreversibility, the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under article VI.

A.2. Non-Nuclear Weapon States Parties' rights and obligations to the NPT: There are three Articles (II, III and IV) in the NPT treaty which is related to the international rights and obligations of non-nuclear weapon states parties to the NPT treaty. Article II of the NPT treaty is related to the basic obligation of non-nuclear weapon states parties that not to manufacture and receive nuclear weapons or other nuclear explosive devices.⁹⁶ In this regard, according to the Article III of the NPT treaty, non-nuclear weapon states parties undertake to accept safeguards, as set forth in an agreement which was negotiated and concluded with the International Atomic Energy Agency for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices.⁹⁷ Article IV of the NPT treaty is the symbol of civilian use of nuclear energy technology that non-nuclear weapon states parties have the right to participate in the complete possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.

A.3. The Basic Obligation of Non-Nuclear Weapon states parties to NPT Treaty: In accordance with article II, The basic non-proliferation obligations of NNWS to NPT regime are: (1) Not to receive transfer of a nuclear weapon from any transferor directly and indirectly, (2) Not to

⁹¹ Ibid.

⁹² Ibid.

⁹³ See NPT. Art. VI

⁹⁴ See Shirley V. Scott, *International Law in World Politics* (London: Lynne Rienner Publishers, 2004) 194.

⁹⁵ See 2010 Review Conference of the Parties to the treaty on the Non-Proliferation of Nuclear Weapons, (27 May 2010) Draft Final Document, Part I Review of the operation of the Treaty, as provided for in its article VIII (3), taking into account the decisions and the resolution adopted by the 1995 NPT Review and Extension Conference and the final Document of the 2000 Review Conference. UN Doc. NPT/ CONF. 2010/L.2

⁹⁶ See NPT. Art. II

⁹⁷ See NPT. Art. III

manufacture nuclear weapon, and (3) Not to receive any assistance in the manufacture of nuclear weapon. Article II of the NPT treaty declares:⁹⁸

Each non-nuclear weapon state party to the treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices

The first part of the article highlights basic obligation of NNWSP which stipulates that states parties should not receive any nuclear weapons from other states. This article also includes not receiving or accepting any nuclear weapons from any transferors for transferring to other NNWS.⁹⁹ NNWS also should not accept any proposal from any transferors to accept such nuclear weapons even for safe keeping temporarily. The Article doesn't make distinction in illegality of receiving or transferring between nuclear weapon and nuclear explosive devices even for peaceful purpose.¹⁰⁰ Indeed, regardless of the professed intent, NPT has banned the proliferation of all nuclear explosive devices.¹⁰¹ So, the transfer of disassembled components or material intended for use in a nuclear weapon is seen illegal.¹⁰² In the second part of Article II, the use of term "not to manufacture" for nuclear weapons or nuclear explosive devices implies all operations and activities resulted in the manufacturing of nuclear weapons or nuclear explosive devices.¹⁰³ In fact, the preparation for manufacturing nuclear weapons can be regarded as violation to Article II because when the result of the act is illegal (manufacturing), all activities which eventually led to it, must be illegal.¹⁰⁴ For instance, high uranium enrichment can be stated as preparation for manufacturing or acquisition of nuclear weapons. The third part of Article II prohibits NNWSP from receiving any assistance in the form of manufacturing of nuclear weapons or other nuclear explosive devices from NWSP to the treaty and NWSP not to the treaty.¹⁰⁵ For instance, a state to the treaty cannot receive assistance from Israel, India and Pakistan (as NWSP) which are not a party to the treaty. Moreover, NNWSP to the treaty should not receive assistance in manufacturing of nuclear weapons from NNWSP to the treaty or NNWSP not to the treaty.

A.4. The Safeguard System and Article III of the NPT: Generally, the authority of the NPT's Safeguard regime is drawn from three sources: (a) Article III of the NPT, (b) IAEA Statute, and (c) IAEA Safeguards system (Safeguards Agreement).¹⁰⁶ In the light of NPT provision which expressly upholds the development of nuclear energy and the inalienable right of states parties to peaceful use of nuclear energy, Article III must be seen as an agent to maintain balance the rights and obligations of the NNWS parties.¹⁰⁷ Although the NPT treaty guarantees inalienable right of states parties to use nuclear energy, implementation of this right subject to the verification by the compliance of NNWSP with their basic obligation not to acquire nuclear weapons.¹⁰⁸ The NPT safeguards have been designed "for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices".¹⁰⁹

⁹⁸ See NPT. Art. II

⁹⁹ See NPT. Art. II

¹⁰⁰ See Michael Spies, "Iran and the limits of the Non-Proliferation regime" (2006) 22:401 AM. U. INT'L L. REV. 402

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ See NPT. Art. II

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ See Michael Spies, "Iran and the limits of the Non-Proliferation regime" (2006) 22:401 AM. U. INT'L L. REV. 402

¹⁰⁷ Ibid.

¹⁰⁸ Hans, Blix. 1989. The Role of the IAEA in the Development of International Law, Nordic Journal of International Law, 1989,P234

¹⁰⁹ See NPT. Art. III

The first part of Article stipulates the inalienable right of states parties to the treaty for peaceful application of nuclear energy subject to acceptance and implementation safeguards which is designed by the IAEA.¹¹⁰ Article III.1 of the treaty delimits the scope of safeguards that “shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility”.¹¹¹ The use of term “undertake” in the Article III of the treaty reveals the peaceful application of nuclear energy which is not unqualified and unlimited, but rather subject to : (1) acceptance of the IAEA Safeguards as mutual agreement between non-nuclear weapon states and the IAEA in accordance with IAEA’s statute, (2) concluding Safeguards Agreements with the IAEA to meet the requirements stipulated therein, individually or jointly with other states, and (3) not receiving source or any fissionable material, equipment or material especially designed or prepared for the processing or production of special fissionable material from any state party, not subject them to the safeguards.¹¹² The part two of Article III is a challenging issue in the treaty because treaty allows non-nuclear weapon states to provide source or special fissionable material, equipment or material especially designed or prepared for the processing or production of special fissionable material subject to be under safeguards and to be used for peaceful purposes.¹¹³ Article III(3) of the treaty explicitly states the NPT safeguard shall be implemented in a manner designed to comply with article IV “to avoid hampering the economic or technological development of the parties or international cooperation in the field of peaceful nuclear activities including the international exchange of nuclear material and equipment for the processing, the application or production of nuclear material for peaceful purposes in accordance with the provisions of this article and the principle of safeguarding set forth in the Preamble of the Treaty”.¹¹⁴ The Article III (3) of the treaty is designed to prevent improper restrictions or misunderstandings about rights and obligations of NNWSP to the treaty and to maintain balance between rights and obligations of NNWSP to the treaty.¹¹⁵ In fact, Article III of the treaty provide a fair condition to prevent any abuse by those states parties who in critical atmosphere trample the rights of NNWSP to use nuclear energy with various allegation such as the possibility of proliferation of nuclear weapons in the world.

A.5. Peaceful Application of Nuclear Energy and Article IV: Article IV of the Treaty on Non-Proliferation of Nuclear Weapons (“NPT”) recognizes both the ‘inalienable right’ of Non-Nuclear Weapon States Parties (“NNWSP”) to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with article I and II’, as well as the right of states parties ‘ to facilitate and participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy’.¹¹⁶ Article IV of the NPT treaty declares:¹¹⁷

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the parties to the treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this treaty.
2. All the parties to the treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially

¹¹⁰ See NPT. Art. III.1

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ Hans, Blix. 1989. The Role of the IAEA in the Development of International Law, Nordic Journal of International Law, 1989,P234

¹¹⁴ See NPT. Art. III.3

¹¹⁵ See Xinjun Zhang, “ The Riddle of “ Inalienable Right” in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons: International Ambiguity, online (2006) 5 Chinese Journal of International Law. 3 < <http://chinesejil.oxfordjournals.org/content/5/3/647.full>>.

¹¹⁶ See NPT, Art. IV

¹¹⁷ Ibid.

in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

The first part of Article IV is related to the interpretation of the treaty which, in effect, should not affect the inalienable right of states parties for peaceful application of nuclear energy technology.¹¹⁸ In fact, Article IV (1) recognizes this right which constitutes one of the fundamental objectives of the treaty. In this regard, the use of the term “without discrimination” in Article IV (1) prevents any improper restriction for implementation of peaceful application of nuclear energy technology by non-nuclear weapon states parties and legitimates each country’s decision in the field of peaceful uses of nuclear energy should be respected without jeopardizing its policy.¹¹⁹ Nonetheless, there is no unqualified and absolute right for non-nuclear weapon in using nuclear energy for peaceful purposes because Article IV (1) declares that peaceful application of nuclear energy must be in conformity with Articles I and II of the treaty.¹²⁰ By Article I of the NPT, the nuclear weapon states parties undertook not to transfer any nuclear weapons and other nuclear explosive devices to other states parties, especially non-nuclear weapon states parties.¹²¹ By Article II of the NPT, non-nuclear weapon states undertook not to receive transfer of a nuclear weapon from any transferor, directly and indirectly, not to manufacture nuclear weapon, as well as not to receive any assistance in the manufacturing of nuclear weapons.¹²² The second part of Article IV recognizes the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.¹²³ In this respect, the legitimate right of all states parties, in particular developing states, to full access to nuclear material, equipment and technological information, transfers of nuclear technology and international cooperation among states parties in conformity with Article I, II and III of the treaty are to be encouraged.¹²⁴

IV. Regional Treaties And Peaceful Application Of Nuclear Energy: There are many regional treaties supporting peaceful application of nuclear energy technology. In fact, regional cooperative arrangements for the promotion of peaceful uses of nuclear energy can be considered as effective means of providing assistance and facilitating technology transfer and complementing the technical cooperative activities. Regional treaties in this case include Treaty of Tlatelolco in Latin America (1966), Treaty of Rarotonga in the South Pacific (1985), Treaty of Bangkok in Southeast Asia (1995), Treaty of Pelindaba in Africa (1996) and Mongolia’s Nuclear-Weapon-Free Status in Central Asia (2000).

A. The Treaty of Tlatelolco: The treaty of Tlatelolco (“Latin America”) was the first regional and multilateral treaties which supported states parties to use nuclear energy technology for peaceful purposes in 1967.¹²⁵ Article 1 of the Treaty of Tlatelolco declares:¹²⁶

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ See Robert Zarate, “The NPT, IAEA Safeguards and Peaceful Nuclear Energy: An “Inalienable Right,” But Precisely To What?” (2007) 5 [unpublished, achieved at Nonproliferation Policy Education Center] online <<http://www.npolicy.org/node/977>>.

¹²¹ NPT, Art I

¹²² NPT, Art II

¹²³ NPT, Art IV (2)

¹²⁴ See 2010 Review Conference of the Parties to the treaty on the Non-Proliferation of Nuclear Weapons, (27 May 2010) Draft Final Document, Part I Review of the operation of the Treaty, as provided for in its article VIII (3), taking into account the decisions and the resolution adopted by the 1995 NPT Review and Extension Conference and the final Document of the 2000 Review Conference. UN Doc. NPT/ CONF. 2010/L.2

¹²⁵ Treaty for the Prohibition of Nuclear Weapons in Latin America and Caribbean (Treaty of Tlatelolco) was adopted on 14 February 1967 in Mexico City. In accordance with Treaty of Tlatelolco, Latin American parties obligate not to acquire or possess nuclear weapons, nor to permit the storage or deployment of nuclear weapons on their territories by other countries. There are two Additional Protocols dealing with matters that concern non-Latin American countries. Protocol I involves an undertaking by non-Latin American countries that have territories in the nuclear-free zone. Protocol II involves an undertaking by those powers which possess nuclear weapons.

¹²⁶ Treaty of Tlatelolco, Art.

1. The contracting parties hereby undertake to use exclusively for peaceful purposes the nuclear material and facilities which are under their jurisdiction, and to prohibit and prevent in their respective territories.

Article 18 of the treaty of Tlatelolco is one of challenging articles in international regulations, especially in the field of peaceful application of nuclear energy, because paragraph 1 states that “the contracting parties may carry out explosions of nuclear devices for peaceful purposes-including explosions which involve devices similar to those used in nuclear weapons- or collaborate with third parties for the same purpose, provided that they do so in accordance with the provisions of this article and the other articles of the treaty, particularly articles 1 and 5”.¹²⁷

B. The Treaty of Rarotonga: Article 4 of the Treaty of Rarotonga (1985) in the South Pacific recognized inalienable right of states parties for peaceful application of nuclear energy.¹²⁸ Nonetheless, the article expressly forbids the use or production of fissionable material for peaceful purposes unless subject to the international safeguards.¹²⁹

1. Each Party undertakes not to provide (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material for peaceful purposes to:
 - (i) Any non-nuclear-weapon states unless subject to the safeguards required by Article III.I of the NPT, or
 - (ii) Any nuclear-weapon States unless subject to applicable safeguards agreements with the International Atomic Energy Agency (IAEA). Any such provision shall be in accordance with strict non-proliferation measures to provide assurance of exclusively peaceful non-explosive use.
2. [Each Party undertakes] to support the continued effectiveness of the international non-proliferation system based on the NPT and the IAEA safeguards system.

C. The Treaty of Pelindaba: African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba) was signed in 1996 and came into force on 15 July 2009.¹³⁰ Article 8 of the Treaty of Pelindaba in Africa (1996) also recognizes legitimate right of states parties to develop research, production and use of nuclear energy for peaceful purposes without discrimination in conformity with international safeguards.¹³¹

1. Nothing in this Treaty shall be interpreted as to prevent the use of nuclear science and technology for peaceful purposes.
2. As part of their efforts to strengthen their security, stability and development, the parties undertake to promote individually and collectively the use of nuclear science and technology for economic and social development. To this end they undertake to establish and strengthen mechanisms for cooperation at the bilateral, sub regional and regional levels.
3. Parties are encouraged to make use of the programme of assistance available in IAEA and, in this connection, to strengthen cooperation under the African Regional Cooperation Agreement for Research, Training and Development Related to Nuclear Science and Technology (hereinafter referred to as AFRA).

D. Treaty on a Nuclear-Weapon- Free Zone in Central Asia / Mongolia’s Nuclear-Weapon-Free Status / The Treaty of Bangkok: The peaceful application of nuclear energy technology has been

¹²⁷ Treaty of Pelindaba, Art. 1

¹²⁸ The South Pacific Nuclear-Free Zone (Treaty of Rarotonga) was signed on 6 August 1985 and came into force on 11 December 1986

¹²⁹ Treaty of Rarotonga, Art. 4

¹³⁰ African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba) was signed in 1996 and came into effect with the 28th ratification on 15 July 2009. The preamble of the treaty declared “African nuclear –weapon-free zone will constitute an important step towards strengthening the non-proliferation regime, promoting cooperation in the peaceful uses of nuclear energy, promoting general and complete disarmament and enhancing regional and international peace and security”.

¹³¹ Treaty of Pelindaba, Art. 8

supported in Article 7 of the Treaty on a Nuclear-Weapon- Free Zone in Central Asia that declares “[n]o provision of this Treaty shall prejudice the right of Parties to use nuclear energy for peaceful purposes”.¹³² In this regard, the Article 5 of Mongolia’s Nuclear-Weapon-Free Status expressly declares:

The use of nuclear energy and technology shall be permitted only by the State administrative authority in charge of nuclear energy and solely for peaceful purposes such as health care, mining, energy production and scientific research in accordance with the provisions of the international treaties to which Mongolia is a party as well as in conformity with the norms and principles of international law.

The Treaty of Bangkok was signed in 1995 in Southeast Asia.¹³³ Article 4 of Treaty of Bangkok (1995) with the title “Use of Nuclear Energy for Peaceful Purpose” also recognized the legitimate right of the states parties to use nuclear energy, in particular for their economic development and social-progress:¹³⁴

Nothing in this Treaty shall prejudice the right of the states parties to use nuclear energy, in particular for their economic development and social-progress.

V. Conclusion: Pierre Lellouche and Bertrand Goldschmidt (2006) argued that the peaceful application of nuclear energy was accompanied by no restrictions except the explicit ban on nuclear explosion in the international law, and peaceful uses of nuclear energy is free from any technical fix of safeguards which perhaps sensitive nuclear activities lead to the manufacture of nuclear weapon or other nuclear explosive devices.¹³⁵ Peaceful application of nuclear energy can be summarized in one sentence: “explosion is forbidden, everything else is allowed; and nothing in NPT prohibited party states from following the technical path of their choice”.¹³⁶ Michael Spies (2006) also believed, ‘neither uranium enrichment nor the stockpiling of fissionable material in connection with a peaceful program would violate Article II [of the NPT treaty] so long as these activities were safeguarded under Article III [of the NPT].’¹³⁷ In fact, he declares that under non-proliferation of a nuclear weapon regime all nuclear activities could be resulted to produce, use and reprocessing fissile material, and uranium enrichment and reprocessing activities are legitimate so long as to be under surveillance and monitor of international community.¹³⁸ Therefore, there is no difference between sensitive and non-sensitive nuclear activities. This is reasonable because a sensitive nuclear activity is a continuation of non-sensitive nuclear activity and they cannot be separated from each other. The term “for peaceful purpose” in Article IV of the NPT treaty implies the qualification that states parties have the right to use sensitive and non-sensitive nuclear activities only for peaceful purpose. In fact, states parties have the right to use uranium enrichment technology, reprocessing and other sensitive nuclear fuel-making activities (all forms of nuclear energy) because it is part of their right for peaceful application of nuclear energy and there is no difference between sensitive and non-sensitive nuclear activities. In accordance with Article IV, states parties’ right to the use of peaceful nuclear energy must be exercised “without discrimination”.¹³⁹ The term “without discrimination” refers to both “benefits-without-discrimination” and all forms of sensitive and non-sensitive nuclear activities. The preamble of the NPT provides the principles of “benefits-without-discrimination”: the benefits of peaceful

¹³² Treaty on a Nuclear-Weapon- Free Zone in Central Asia was signed 8 September 2006 and entered into force 21 March 2009.

¹³³ The Southeast Asia Nuclear-Weapon-Free-Zone Treaty was signed in Kuala Lumpur on 27 November 1971 and the Programme of Action on ZOPFAN (Zone of Peace, Freedom and Neutrality) adopted at the 26th ASEAN Ministerial Meeting in Singapore in July 1993.

¹³⁴ The Treaty of Bangkok, Art. 4

¹³⁵ Xinjun Zhang, “The Riddle of “Inalienable Right” in Article IV of the Treaty on the Non-Proliferation of Nuclear Weapons: International Ambiguity, online (2006) 5 Chinese Journal of International Law. 3 <<http://chinesejil.oxfordjournals.org/content/5/3/647.full>>.

¹³⁶ Ibid.

¹³⁷ See Michael Spies, “Iran and the limits of the Non-Proliferation regime” (2006) 22:401 AM. U. INT’L L. REV. 402

¹³⁸ Ibid.

¹³⁹ NPT, Art.IV, para 1

applications of nuclear technology, including any technological by-products which may be derived by nuclear weapon States from development of nuclear explosive devices, should be available for peaceful purpose to all parties of the treaty, whether nuclear-weapon or non-nuclear weapon states.¹⁴⁰ The draft of the NPT intended to prevent any dual standards between states parties in developing peaceful application of nuclear energy. The lack of discriminations and dual standards in the implementation of peaceful uses of nuclear energy is a guarantee given by the NPT to the NNWSP. In this respect, Foreign Minister of Iran, Manouchehr Mottaki (2006) believed that peaceful application of nuclear energy was part of national rights of states parties to the NPT. He believed, ‘any action by states or the international organizations to limit such rights constitutes a violation of the fundamental principles of international law.’¹⁴¹

¹⁴⁰ NPT, preamble, para. 7

¹⁴¹ Ibid.