### INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA) AND THE DIPLOMACY OF SUSTAINABLE INTERNATIONAL NUCLEAR SECURITY

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#### ABSTRACT

The increasing threat and proliferation of Nuclear Weapons and materials across national and international boundaries have combined to pose severe threat to the stability of the international system. In this respect, the International Atomic Energy Agency (IAEA), has through its robust activities helped to enthrone the virtues of sustainable Nuclear security in our fast, but ever-changing world. This study concluded the IAEA, regardless of its numerous short comings, have proved to be an all important and quintessential instrument for strengthening sustainable Nuclear security, International Diplomacy, peace and security in the International system. Some reasonable but, indeed very practicable solutions as to how the face of the looming dangers from non-State actors in the International system such as the abolition of Nuclear Weapons by Nuclear States and national governments to the resolution of political conflict without the use of force was recommended.

Keywords: IAEA Nuclear security, Diplomacy, Sustainability

#### **INTRODUCTION**

The Atomic age began in 1945 when, at the end of the World War II, the United States dropped Atomic Bomb on the Japanese cities of Hiroshima and Nagasaki (Lampart, 1976). Four years later, in the midst of the Cold War, the Soviet Union exploded an Atomic device to trigger off the scare of a Nuclear War between the two Cold War protagonists. However, in the next four decades, the world lived precariously under an Atomic sword of Damocles; the fear that the Cold War would explode into a Nuclear World war III seemed a possibility. It was, during this time that the superpowers amassed large stockpiles of Chemical and Biological Weapons (Rosenau, 1990); the use of which could cause indiscriminate mass civilian deaths.

Between them, they accumulated as many as fifty thousand War heads, along with sophisticated aircrafts and missiles to deliver them. Over time, it became clear that Weapons of Mass Destruction were of little use except in determining a general and an all out war between the superpowers or the dissuading of others from using such weapons on oneself or ones allies (Rosenau, 1990). It was against this background that soon after a United Nations Atomic Energy Commission (UNAEC) was created to: consider problems arising from the discovery of Atomic energy and

related matters. At the end of 1949, UNAEC, United State of America (USA) and Union of Soviet Socialist Republic (USSR) and their allies aim was not only to prevent the spread of Nuclear Weapons, but to do away with it altogether. Thus, an International authority was created to own, or control and operate all nuclear activity that leads to the production of fissile materials, including all reactors, except those that are non dangerous (Rosenau, 1990).

In 1953, President Eisenhower's proposal at the General Assembly of the United Nations (UN) (IAEA, 2006) led the creation of the International Atomic Energy Agency (IAEA), a year later. And for the over fifty years after its birth, the IAEA has remained essentially relevant in sustaining International order, peace and security, its shortcomings, notwithstanding. Be that as it may, the IAEA has helped to achieve sustainable Nuclear security through: the control and spread of, supply of Nuclear materials; negotiated and concluded the Non-Proliferation Treaty (NPT); facilitated Nuclear race disarmament; prevented the diversion of Nuclear materials for other purpose other than for peaceful purposes; promoted Nuclear security culture; encouraged the prevention, detection and response to theft; sabotage; as well as promoted and strengthened International partnership, cooperation and diplomacy.

Indeed, it has evolved considerably as a quintessential instrument for sustaining a comprehensive approach to nuclear security by promoting bilateral and multilateral support to security concerns and strategies. In addition, the IAEA has provided training, guidance, expert advice, peer review as well as combat illicit trafficking in nuclear materials. It has also been signatory to several conventions aimed at promoting International cooperation, partnership, peace, security and diplomacy. Also worth mentioning is the development of up-to-date methodology aimed at improving research and making same available to States for effective use and management of nuclear resources. We must add again that IAEA has increased liaison, collaboration and co-ordination between member States, and thus, promoting increased nuclear security between regional, trans-national as well as International Organizations.

# IAEA AUTHORIZED FUNCTIONS, MISSION AND MANDATE

- (i) Take any action needed to promote research on, development of and practical application of Nuclear energy for peaceful purpose.
- (ii) Provide equipments and facilities for such research and development, and for practical applications of Atomic energy with due consideration for the needs of the under developed areas of the World.
- (iii) Foster the excellence of scientific and technical information.
- (iv) Establish and apply safeguards to ensure that Nuclear assistance or supplies with which the IAEA was associated should not be used to further any military purposes and apply such safeguards, if so requested to any bilateral or multilateral arrangement.
- (v) Establish or adapt Nuclear safety standards.

- (vi) To accelerate and enlarge the continuation of a Atomic energy to peace, health and prosperity throughout the world.
- (vii) To control and limit the use of atomic bomb as an instrument of arms race.
- (viii) To direct and encourage the development of Atomic power for peaceful and humanitarian purpose.
- (ix) To avoid a post war Nuclear arms race.
- (x) To encourage the exchange and training of scientist and experts in the field of peaceful uses of Atomic energy (UNSC, 2004).

The IAEA is a specialized agency of the UN, and its not under the direct control of any UN body, but reports to but the General Assembly and the security council; and unlike most other specialized agencies, it does not do most of its work with Economic and Social Council of the UN.

The IAEA structure and functions defined by its founding document has namely: the Board of Governors, the General Conference and the Secretariat. The IAEA's mission is guided by the interests and needs of member States, strategic plans and the vision embodied in the IAEA's statute. The three main pillars of which are Technology, Safeguard and Verification established Independent of the UN under its own International treaty, the IAEA seeks to promote the peaceful use of Nuclear energy and, to inhibit its use for military purposes. Headquartered in Vienna, Austria, with two Regional safeguard offices are located in Toronto, Canada and Tokyo, Japan; the IAEA has two liaison offices located in New York, USA, and Geneva, Switzerland. In addition, it has laboratories in Seibersdorf and Vienna, Austria, Monaco and Trieste, Italy. As an Inter-governmental forum for scientific and technical co-ordination, the IAEA serves in the peaceful use of Nuclear Technology world wide. The IAEA's programmes encourage the development of the peaceful applications of Nuclear Technology, provide International safeguard against its misuse, and facilitate an application of safety measures in its use (Wikipedia, 2008).

# IAEA AND THE DIPLOMACY OF SUSTAINABLE INTERNATIONAL NUCLEAR SECURITY

The dawning of the nuclear era and the birth of the nuclear non-proliferation regime was heralded by the most dreaded brilliance: the flash from the explosions of the first, and hopefully the only Nuclear Weapons ever used against human beings. While it was clear, even as the outset that the Atom could be exploited for the benefit of mankind, it was equally clear that the wielding of this mighty double-edge sword required restraint and control.

The first efforts were based on the denial that if the technology holders does not share their knowledge, so that the proliferation would be at least hindered (Rockwood, 2007). If the first twenty five years of the IAEA can be characterized as a period of controlled supply of nuclear materials and nuclear facilities, the next two decades can be characterized as a period of ever increasing indigenous development of nuclear fuel cycle activities. Meanwhile, the world's community brought into force the Non-Proliferation Treaty (NPT) (IAEA document) not only as a prohibition against the horizontal spread of Nuclear weapons by countries which had already exploded the Nuclear device, nor to develop or acquire Nuclear weapons, but a commitment by all parties to the cessation of the Nuclear race and disarmament (IAEA documents). To this end, the NPT has obliged both Nuclear and Non-Nuclear Weapon State to accept safeguards as set forth in an agreement to be negotiated and concluded with the IAEA for the exclusive purposes of Verification of the fulfillment by the signatory States of their obligations under the NPT with a view to preventing diversion of Nuclear energy from peaceful uses to Nuclear Weapons or other Nuclear explosive devices.

Nonetheless, it was deterrence, a guiding concept of the Nuclear powers military strategies for most of the Cold War years that kept proliferation at bay, as the few strongest powers deferred each other from using Nuclear Weapons, whilst other poor States deterred each other from acquiring such weapons (CIA Report). However, despite the impact of deterrence, the NPT has not been irrelevant. The IAEA, its member States and International Organizations have been aggressively promoting the concept of Nuclear security culture as a tool to improve the physical protection of Nuclear materials as well as providing increased attention to activities against illicit trafficking of Nuclear materials and other radio-active sources, to prevent the malicious use of Nuclear and other radioactive materials and the sabotage of Nuclear installation (El-Baradei, 2006).

The IAEA, in partnership with State and Non-State agencies also ensures that the growing threat of catastrophic terrorism and other new security challenges are made clear, that the scope of Nuclear security and the associated threats needs to extend beyond the territorial table of protecting Weapon usable materials at their sites; and that radio-active sources are rigorously protected while undergoing transport, storage, or handling for a variety of other purpose. Therefore, the IAEA has recently embraced a new and wider understanding of nuclear security by defining it as: "the prevention and detection of, and response to theft, sabotage, unauthorized substances, or their associated facilities."

This understanding of nuclear security is largely consistent with the guidelines set forth in the United Nations Security Council (UNSC) Resolution 1540, in April, 2004, which seeks to prevent the spread of Weapons of Mass Destruction (WMD). These includes: Nuclear, Chemical and Biological Weapons to non-State actors. (UNSC, Resolution, 2004). This measure closely mirrors the structure and activities of the agency's nuclear security plan. In particular, the resolution focuses on the prevention/detection element of nuclear security (IAEA Report, 2005). Being a matter for both National and International concern, the development of Treaties and Conventions designed to criminalize "acts, methods and practices" used by those threatening world peace and security; have been some of the over-arching aims of the IAEA. Even more specifically, the IAEA has intensified international co-operation efforts in very many respects. These includes; the Management of the Illicit

Trafficking, of Database Programme, the Provision of Training, Guidance, Expert Assistance and Equipment Peer Review and Co-ordination Services and other activities in support of the Prevention and Detection of, and Response to Trafficking of Radio-Active materials.

Others include, the Anti-Terror Convention; the Convention on offenses and certain other acts committed on board Aircraft; the Convention for the Suppression of Unlawful Seizure of Aircraft; the Convention for the Suppression of unlawful acts against the safety of Civil Aviation; the Convention on the Prevention and Punishment of crimes against Internationally Protected Persons; International Convention against the taking of Hostages; as well as the Convention on the physical protection of Nuclear Materials in: 1963, 1970, 1971, 1973, 1979 and 1980 respectively. Also worthy of mention are: the NPT in 1985: the Biological Weapons Convention (BWC): the Missile Technology Control Regime (MTCR); and the chemical Weapons Convention (CWC) (Bermudez, 1996). The IAEA's role in helping to maintain and manage International Security is by no means profound. Apart from its overall goal of improving Nuclear security, reducing the risk of nuclear terrorism, facilitating the development of, and adherence to legally binding and non-binding international instrument, development of international guidelines and recommending acceptable standards to the international community, providing related assessment services; it also trains and provides equipments and technical advise as well as facilitate the exchange of information and related services (IAEA, 2005).

To this end, the IAEA has established and provided several Advisory Services to member States to assess the effectiveness and the need for improvement of the their national physical oversight system; strengthening Nuclear security programme to embrace broader coverage, and to assist member States in protecting their Nuclear and radio-active materials against the emerging threat of terrorism. The programme, however, combines the acceleration of existing agency's activities with the development of an extensive range of new measures to assist member states, upon request, in the Prevention, Detection, and Response of malicious acts, building on, accelerating and expanding a number of existing IAEA's activities under a single co-ordination (IAEA, 2005).

The IAEA is working to articulate emergency measures on prevention. The plan which is built around a comprehensive approach that includes: Nuclear security evaluation and appraisal missions, implementing security upgrade through bi-literal support, expert missions aimed at securing 'orphaned' radio-active sources, and developing of nationals strategies for locating and securing sources. In the area of detection, the plans aims to further strengthening capabilities of the authorities controlling boarder crossing; to validate instruments used for detection; and to supply detection instruments to member States through the agency's programmes and bi-literal support (IAEA, 2006). To respond to terrorist attacks, the plan is helping the agency and States to prepare emergency response arrangement, through improved planning and methodology development. These also include:

assisting in the transportation of samples, and making nuclear forensic analysis available to numerous States.

The IAEA is also responsible for the allocation of resources provided by a specific extra-budgetary fund called: the Nuclear Security Fund (NSF) which has been established to support the agency's nuclear security programme. Additionally, technical assistance provided to States in their efforts to establish the necessary infrastructure to protect Nuclear and other Radio-Active materials from theft and diversion, protect Nuclear installations and transportation, protect against sabotage and other malicious acts, and to combat illicit trafficking in Nuclear and other Radio-Active materials (IAEA.Org., 2006).

Since inception, the IAEA's nuclear security programme has provided direct assistance to over seventy five countries in the form of assessment mission, training courses, or support for development of national guidelines and regulations. The agency has also successfully assisted member States in obtaining much needed detection and other equipment for use within the framework of IAEA standards or guidelines when creating their own security regulations and practices (Sammel, 2005). Through Nuclear security co-ordination involving several Agencies and Departments; the IAEA, has, in close co-ordination has evolved considerably for the effective; consistent and coherent co-ordination Programmes of strengthening Nuclear security and the effective use of resources to enhance the impact of individual project toward the same goal.

The agency has continue to seek liaison, collaboration and increase its efforts to co-ordinate its Nuclear security activities with those of national bilateral support programmes especially when recommendations have been made to upgrade existing systems with new, or more effective equipment, as well as with other Regional, Trans-National and International Organizations including the UNSC Counter Terrorism Committee, Interpol, World Customs Organization, Europol, the UN conference on Disarmament, the UN Interregional Crime and Justice Research Institute, the Organization for Security and Co-operation in Europe (OSCE), the European Union (EU), the Universal Postal Union (UPU), and so on.

# CHALLENGES TO THE DIPLOMACY OF SUSTAINABLE INTERNATIONAL NUCLEAR SECURITY

In spite of the important progress made by the international community and individual States in their level of preparedness in preventing, detecting and responding to nuclear terrorism, these have, nonetheless constitutes the greatest threats to society today. The periodic reports of illicit trafficking in Nuclear and other Radio-Active materials, as well as reports that terrorist organizations have shown interest in obtaining those materials, makes it clear that there is no room for complacency (IAEA.Org, 2006).

However, deficiencies remain in the legal, administrative, and technical arrangements for controlling and protecting nuclear materials and Radio-Active sources in many countries. The political and economic consequences, as well as the

health impacts of a successful malicious use of radioactive materials could be devastating. There is a distinct belief that the response to date is not commensurate with the potential consequences of these threats. Thus, in dealing with these challenges the international community must continue to work to identity specific threats share and make the best use of the information available about illicit Nuclear trafficking and other Nuclear security related events; strengthen prevention against such acts and maintain the confidentiality of the sensitive information involved (Anonymous, 2005). Also, since the most immediate and important challenge facing Nuclear security programme is to identify and clearly prioritize its goals and activities to address continuing global Nuclear security concerns, and complement other activities of the Agency, and since also the likelihood for Nuclear Terrorism is greatest, it would need more analytic capability and closer collaboration with Nuclear States to take into account the substantial efforts occurring outside the ambit of the IAEA (Sammel, 2005).

### **CONCLUSION AND RECOMMENDATIONS**

The contention, sentiment and temper of this study is that the IAEA, regardless of its numerous short comings, have proved to be an all important and quintessential instrument for strengthening sustainable Nuclear security, International Diplomacy, peace and security in the International system. As the UN's Nuclear Watchdog, the IAEA, has largely proved to be a very potent agency for enthroning sustainable International Nuclear security whilst at the same time has helped nip-in-the-bud the growing threats to the States system as well as from Non-State Agencies operating across, below, above and from within: rogue, failed, quasi, democratic, legitimate, militarized, elite base, post-modern, pre-modern, modern etc, depending on what aspect of statehood are interested, absolute to partial (Uadiale, 2009), in the International system.

To this end, the IAEA through it increased and sustained International support and co-operation; programmes implementation by individual States; awareness measures to address Nuclear security; improving regulatory infrastructure; physical protection and accountability within States, has established a second line of defense based radiation detention at boarder crossing, as well as measure for responding to criminal act or terrorism (Ezequiel, 2006); intensified regional security partnership for regulating to long term sustainability of Nuclear security efforts, and securing disused high activity sources and training government institutions (IAEA 2006). The primary concern of the IAEA's assistance programme is to sustain and to upgrade or maintain an adequate level of security to ensure that requisite operational and regulatory infrastructure is in place (Sammel, 2006).

The abolition of Nuclear Weapons (UNDDA, 2001); by Nuclear States and national governments to the resolution of political conflict without the use of force (Dhanapala, 2005); encouraging and promoting full universal membership in NPT

and full compliance with terms, including disarmament and possible extensions of WMD free zones (Dhanapala, 2005) remains amongst other robust options and recommendations that must be fully explored by the IAEA as well as bilateral and multi-lateral partners in entraining the culture of genuine International peace and Nuclear security in the International system.

#### REFERENCES

- Anonymous (2005). International Conference on Nuclear Security: Global Direction for the Future, London: p.36
- Bermudez, J. S. (1996). Pakistan Ghauri Missile Co-operation (Unpublished Paper) p.2.
- **Central Intelligence Agency** (1999). Report (A statement by John A. Lander, Special Assistant to the Director CIA at Commission Hearing, Washington DC) p.6
- Dhanapala, G. J. (2005). Multilateral Diplomacy and the Non-Proliferation Treaty (NPT): An Inside Account; (Geneva: UNIDIR), p.139
- **El-Baradei, M.** (2005), Physical Protection of Nuclear Materials:(*http:liwww.iaea.org/publication/magazines Bulletin/Bu394/elbaradieart/html*).
- Ezequiel, M. (2006). Nuclear Security and the IAEA (Vienna: The International University Press,), p.24
- Fischer, D. (2002). History of the IAEA: The First Forty Years, (Vienna), p.41.
- International Atomic Energy Agency (2006). History of the IAEA(http:www.iaea.org/about/ threeHistoryintmil), Retrieved 08 February).
- IAEA Document, INFCIRC/140 of NPT.
- IAEA Report (2005). Nuclear Security Measures to protect Against Nuclear Terrorism, Progress Report and Nuclear Security Plan, 2006 - 2009, p.11.
- IAEA (2006). Promoting Nuclear Security: What the IAEA is Doing? (IAEA:Information Series 1) p.31
- IAEA Org (2006). Nuclear Security (Http://www.ns.iaea.org/security Retrieved 09 February,)
- IAEA.Org (2006). Nuclear Security Co-ordination and Information Management (http:llwww.ns.iaea.org/Security/co-ordination html).
- IAEA (2006). Department of Nuclear Safety and Security: (UN Disarmament Yearbook Press) p.10. **Lampart, M. F.** (1976). The Web of World Politics (New York, Press),p.20.
- Rockwood, L. (2007). Safeguards and Non-Proliferation: The first Half Century From a Legal Perspective (Vienna, Austria: Journal of Nuclear Material Management, Office of Legal Affairs IAEA, Summer, Vol. XXXV. No. 4) p.7.
- Rosenau, J. (1990). Turbulence in World Politics: A Theory of Change and Continuity. (Princeton Press, 1990), p.26
- Sammel, A. K. (2006). Future Goals and Challenges of the IAEA Nuclear Security Programme. (U. S. Department of State Press), p.20
- **Uadiale, M.** (2009). State, Corporation and the Market': Private Military Companies (PMC's) and the changing State Authority Relations in Africa), *Journal of Globalization and Development*, Vol.2 No.2, p.57
- United Nations (2001), Department for Disarmament Affairs. New York: p.4
- United Nations Security Council (2004). Resolution 1540, http://doi.org.ch/80256 EDD0668954.html Retrieved 08 February)
- Wilkpedia (2008). IAEA, (Vienna, IAEA Historical Publication) p.1.