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LEGAL CHALLENGES AND POLITICAL CONSIDERATIONS

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**PROBLEMS OF NUCLEAR WEAPONS DISARMAMENT IN
INTERNATIONAL LAW: LEGAL CHALLENGES AND
POLITICAL CONSIDERATIONS**

BY

MOSES AKPOFURE ITENE

**A thesis submitted to the University of Huddersfield in partial
fulfilment of the requirements for the degree of Doctor of
Philosophy**

September 2018

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Abstract

This thesis explores the legal rationale and political considerations for nuclear disarmament and non-proliferation of nuclear weapons. Nuclear weapons are the most dangerous weapons on earth. Only one can destroy a city, with the potentiality of killing millions and affecting the lives of a whole generation through its lasting calamitous consequences and jeopardising the natural environment. Nuclear weapons are normally classified alongside with chemical and biological weapons as Weapons of Mass Destruction (WMD) and their danger surrounds their very existence. Disarmament has been axiomatically accepted as the best safeguard against their threat, but achieving the aim of disarmament has a tremendously difficult international, socio-legal and political challenge. There are about 22,000 nuclear weapons allegedly remaining in our world today and over 2,000 nuclear tests have been conducted to date. This is to check their functionality by the Nuclear Weapon States (NWS) and to demonstrate to real and potential enemies the potency of their nuclear forces.

Consequently, International Law provides the framework within which States conduct their international affairs, usually accepting certain reciprocal constraints and regulating exceptions raised on nuclear weapons disarmament and for ensuring global peace. However, in as much as the NWS and their allies rely on nuclear weapons as legitimate security protective hedge for self-defence, efforts to ensure nuclear disarmament will invariably suffer from a fundamental contradiction and credibility deficit. This research, which unravels contemporary discourse on nuclear weapons disarmament, is burdened by the globally entrenched nuclear hegemony by the NWS and the looming danger of nuclear crisis across the world such as North Korea and other “rogue States” unbridled nuclear ambitions. The doctrinal legal research methodology is being used in analysing, synthesising and critiquing the legal and political issues associated with the research.

The possession of nuclear weapons and reliance on nuclear deterrence are tangible evidence of nuclear proliferation. The more the world realises the global humanitarian consequences associated with nuclear weapons, the stronger the case and urgent steps needed against them. The nuclear technological threshold is rapidly growing, for political rather than technological purposes. This thesis therefore argues for more effective monitoring and compliance, together with greater enforcement of nuclear non-proliferation and disarmament commitments and obligations, especially in accordance with the provisions of the newly emerged Treaty on the Prohibition of Nuclear Weapons (TPNW) for the realisation of the desired objective of a nuclear free world.

As part of the research findings, it is clear that any use of nuclear weapons would violate all the principles of International Humanitarian Law including *jus ad bellum* (when States are compelled to engage in warfare) and *jus in bello* (rules of engagement in war). This is as a result of the unthinkable humanitarian emergencies, catastrophic global consequences on the environment, climate, health, social order, human development and economic impacts nuclear weapons would potentially cause. According to the 2002 Rome Statute of International Criminal Court provisions, any use of nuclear weapons would amount to genocide (Article 6), crime against humanity (Article 7) and war crime (Article 8). Still from the research findings, both nuclear weapons and nuclear deterrence are arguably described as illegitimate instruments of State policies and they constitute instrumentalities of international lawlessness in the midst of earliest and contemporaneous legal instruments on nuclear disarmament.

The fundamental recommendation arising from this research is that all States at all times need to comply with applicable international law on nuclear disarmament in conformity with the International Court of Justice Advisory Opinions on the legality of the threat or use of nuclear weapons and on the legality of use of nuclear weapons by a State in armed conflict. Significantly, all the Nuclear Weapon States should fulfil their commitments on the 13 practical steps towards disarmament outlined at the 2000 Non-proliferation Treaty Review and Extension Conference (NPTREC), for the actualisation of general and complete nuclear disarmament.

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“Meekness implies a spirit of gratitude as opposed to an attitude of self-sufficiency, an acknowledgement of a greater power beyond oneself, a recognition of God, and an acceptance of His commandment.” - Gordon B. Hinckley

“Ingratitude is sharper than the devil’s sword” – Shakespeare

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LIST OF ABBREVIATIONS

Abbreviations	Meanings
ABACC	Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials

A-bomb	Atom Bomb
AFCONE	African Commission on Nuclear Energy
ANWFZ	African Nuclear Weapons Free Zone
AL	Arab League
ASSMT	Analytical Support and Sanction Monitoring Team
AU	African Union
ABM (Treaty)	Anti-Ballistic Missiles System Treaty
ALND	Australian Lawyers for Nuclear Disarmament
BLAANA	Bangladesh Lawyers Association Against Nuclear Arms
BOGs	Board of Governors
CANWFZ	Central Asian Nuclear Weapon Free Zone
CBO	Congressional Budget office
CCW	Convention on Certain Conventional Weapons
CD	Conference on Disarmament
CIA	Central Intelligence Agency
CND	Campaign for Nuclear Disarmament
CSA	Comprehensive Safeguards Agreements
CPNNM	Convention on Physical Protection of Nuclear Materials
CTBT	Comprehensive Nuclear Test Ban Treaty
CW	Cold War
DPKR	Democratic Peoples' Republic of Korea
EAEC or Euratom	European Atomic Energy Community
EEZ	Executive Economic Zone
EU	European Union
FMCT	Fissile Material Cut-off Treaty
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GLCM	Ground Launched Cruise Missiles
GTRI	Global Threat Reduction Initiative
H-bombs	Hydrogen Bombs
HELCOM	Convention on the Protection of Marine Environment of Baltic Sea and the Baltic Area (The Helsinki Convention)

HINW	Humanitarian Impact of Nuclear Weapons
HEU	Highly Enrich Uranium
HOCOC	Hague Code of Conduct against Ballistic Missile Proliferation
ICBMs	Intercontinental Ballistic Missiles
IALANA	International Association of Lawyers Against Nuclear Arms
IAEA	International Atomic Energy Agency
ICAN	International Campaign to Abolish Nuclear Weapons
ICOC	International Code of Conduct against Ballistic Missiles Proliferation

ICSANT	International Convention for the Suppression of Acts of Nuclear Terrorism

ICSTB	International Convention for the Suppression of Terrorist Bombing

ICJ	International Court of Justice
ICN	International Council of Nurses
iGSE	Independent Group of Scientific Experts
IHL	Intentional Humanitarian Law
ILANA	India Lawyers Against Nuclear Arms
ILA	International Law Association
ILC	International Law Commission
IMF	International Monetary Fund

IM	Institute of Multilateralism
INESAP	International Networks of Engineers and Scientists Against Proliferation

INFCIRC	Information Circular
INF Treaty	Intermediate-Range Nuclear Force Treaty
IPB	International Peace Bureau
IPPNW	International Physicians for the Prevention of Nuclear War
ITDB	Illicit Trafficking Database (ITDB)
LANWFZ	Latin American Nuclear Weapons Free Zone
LNCP	Lawyers Committee on Nuclear Policy (USA)
LND	Lawyers for Nuclear Disarmament (UK)
LTBT	Limited Test Ban Treaty
MAD	Mutually Assure Delusions
MAD	Mutually Assured Destruction
MC	Military Committee
MDGs	Millennium Development Goals
MIRVs	Multiple Independently Targetable Re-entry Vehicles
MLENW	Movement of Lawyers for the Elimination of Nuclear Weapons in Japan

MNWC	Model Nuclear Weapon Convention
MTCR	Missile Technology Control Regime
NAM	Non-Aligned Movement
NATO	North Atlantic Treaty Organisation
NFZ	Nuclear Free Zone
NNWS	Non-Nuclear Weapon States
NORAD	North America Air Defence
NPT	Non-Proliferation of Nuclear Weapons Treaty
NPTREC	Non-Proliferation Treaty Review and Extension Conference
NRRC	Nuclear Risk Reduction Centre
NSA	Negative Security Assurance
NTMs	National Technical Means of Verification
NWC	Nuclear Weapons Convention
NWFZ	Nuclear Weapon Free Zone
NWS	Nuclear Weapon States
NWZLND	New Zealand Lawyers for Nuclear Disarmament
OEWG	Open-Ended Working Group
POC	Point of Contact
PNIs	Presidential Nuclear Initiatives
Pre/Comm	Preparatory Committee
PSA	Positive Security Assurance
PTBN	Partial Test Ban Treaty
P5	Five Permanent
R&D	Research and Development
RECA	Radiation Exposure Compensation Act
RMA	Revolution in Military Affairs
RMI	Republic of Marshall Islands
SALT	Strategic Arms Limitations Talk
SEANWFZ	South East Asian Nuclear Weapon Free Zone
SLANA	Swedish Lawyers Against Nuclear Arms
SLCMs	Sea Launched Cruise Missiles
SORT	Strategic Offensive Reduction Treaty
SPNFZ	South Pacific Nuclear Free Zone
START	Strategic Arms Reduction Talks
SSBNs	Vanguard-classed Ballistic Missile Submarines
SS-NWFZS	Single State Nuclear Weapons Free Zones
SSOD	Special Session Devoted to Disarmament
TMI – 2	Three Mile Island Accident
TNT	Tri-Nitritoluene
TNW	Tactical Nuclear Weapon
TNWS	Tactical Nuclear Weapon States
TPB	Terrorism Prevention Branch
UK	United Kingdom
UN	United Nations

UNDC	United Nations Disarmament Commission
UNGA	United Nations General Assembly
UNIDIR	United Nations Institute for Disarmament Research
UNODA	United Nations Office for Disarmament Affairs
UNDOC	United Nation Office on Drugs and Crime
UNSC	United Nations Security Council
USA	United States of America
USSR	Union of Soviet Socialist Republic
VCDR	Vienna Convention on Diplomatic Relations
VCLT	Vienna Convention on the Law of Treaties
WFPHA	World Federation of Public Health Association
WHO	World Health Organisation
WMA	World Medical Association
WMD	Weapons of Mass Destruction
WSP	World Super Power
WTO	World Trade Organisation
WWI	First World War
WWII	Second World War

CHAPTER ONE

BACKGROUND TO THE THESIS PROBLEM

1.1 General Introduction: Contextualising the Nuclear Weapons Problem

This chapter examines the background of this doctoral research. It contextualises the nuclear weapons problem and review the early efforts to nuclear disarmament together with international law as a framework of State practice. As an introductory chapter of this research, it features the research aim and objectives as well as the research questions. Also included in this chapter are the research rationale, thesis statement, and the research key concepts, which are nuclear weapons, disarmament, multilateralism and international treaties in the light of nuclear disarmament. The conclusion of this chapter sythensises the theme and structural analysis of the thesis.

According to United Nations Office for Disarmament Affairs (UNODA): “Nuclear weapons are the most dangerous weapons on earth.”¹ Only a single nuclear weapons can utterly destroy a city, with the possibility of killing millions and wasting the lives of an entire generation through its longstanding calamitous effects and endangering the natural environment. Nuclear weapons are usually classified together with chemical and biological weapons as Weapons of Mass Destruction (WMD)² and their endangerment emanates from their existing presence in the world. Nuclear disarmament has been generally accepted as the best safeguard against their potential threat, but achieving the goal of disarmament is enormously fraught with difficult ideological, legal and political challenges.³

Moreover, serious challenges of fresh and imminent dangers concerning nuclear weapons are confronting the international community, as the world is at the crossways of technological advancement, global terrorism, socio-political and geo-political hegemony, as well as further uncertainty surrounding the strategies relating of anticipation. Despite the foreclosure of the nuclear impasse of the Cold War epoch, nuclear weapons remain a colossal threat to the people and the governments of the whole world as result of their destructive capabilities.⁴

The greatest substantial danger to global peace and security today originates exactly from the development – or prospective emergence – of new nuclear arm race.⁵ For example, in the most recent past, the world experienced and currently still experiencing the North Korean ambitious and unbridled actions of various nuclear weapons reality and the ballistic missiles capability, intended to threaten other countries especially its

¹ UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/Nuclear accessed 6 June 2016

² Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 12

³ Ibid

⁴ NAPF - Nuclear Age Peace Foundation (Nuclear Weapons Issues) www.wagingpeace.org/disarmament

⁵ Christopher A. Ford, *Debating Disarmament: The Non-proliferation Review* [2007] 14:3, 401 -428 < <http://dx.doi.org/10.1080/10736700701611720> > accessed 7 June 2016

South Korean neighbour and to exhibit its nuclear weapons capabilities to the Nuclear Weapon States (NWS).⁶

In the same vein, Iran has been targeting uranium enrichment and ballistic missile capabilities, as its government has the intention of dutiful and apocalyptic considerable rage of wiping Israel – a regional nuclear power “off the map.”⁷

Saliently, it is noteworthy to mention that up to the time of this thesis, nuclear weapons have only been used twice in warfare in the world. First, is the atomic bombing of the city of Hiroshima and secondly, the catastrophic bombing of the city of Nagasaki both in Japan, executed by the United States of America (USA) during the final phase of the Second World War in 1945. The bombings of Hiroshima and Nagasaki have forced humanity to examine its self-destructive capabilities; by interpretation, how to change conventional conflict from blood-spattered and devastating affairs it assumed to high-precision destruction and killing.⁸ An illustration of weapons target precision was the 1991 Gulf War usher in Revolution in Military Affairs (RMA).⁹

All through the era of the Cold War, the whole of humanity lived with the eminent danger of Mutually Assured Destruction (MAD). It could be argued that, after about three decades of the Cold War, humanity is still living in another dimension of MAD – Mutually Assured Delusions,¹⁰ that is, the delusions of deterrence theory that nuclear weapons provide defence against nuclear attacks and the reliance on nuclear armaments for protection in the 21st century.

Obviously, nuclear deterrence would not be effective for the Nuclear Weapon States (NWS) and the rest of the world against terrorist organisations that could possess nuclear weapons. Nuclear weapons are not only illegal, they are also unethical, costly, and undermine global security as their usage would violate the rules regulating the conduct of war. The United States as the militarily and economically the most powerful country in the world as well as the first nation that manufactured nuclear weapons and the only country that have used them, has the special task to lead the world in achieving its aspirations for nuclear disarmament in line with international law.¹¹

Numerically, there approximately are about 22,000 nuclear weapons in our world presently and over 2,000 nuclear tests and detonations have been carried out to date by both the Nuclear Weapon States (NWS) and other nuclear possessing countries.¹² This is to ascertain their functionality and to prove to real and potential State enemies, the strength of their nuclear capabilities.¹³ Noticeably, States are progressively interested in developing nuclear power as a dependable supply in ensuring their

⁶ Ibid

⁷ Christopher A. Ford, *Debating Disarmament: The Non-proliferation Review* [2007] 14:3, 401 -428 < <http://dx.doi.org/10.1080/10736700701611720> > accessed 7 June 2016

⁸ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 2

⁹ Ibid

¹⁰ David Krieger, *The Challenge of Abolishing Nuclear Weapons* (Transaction Publisher, 2011) 13

¹¹ Ibid

¹² UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/Nuclear accessed 6 June 2016

¹³ UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/Nuclear accessed 6 June 2016

energy security.¹⁴ All NWS including Non-Nuclear Weapons States (NNWS) such as India, Israel, North Korea, Pakistan, have tested and exploded nuclear devices.¹⁵ Reportedly, there are about 12,000 nuclear weapons deployed across the globe, and 3,500 are on hair-trigger alert ready to be launched.¹⁶

Perceptibly, as long as nuclear weapons remain in the world, our future depends on the ongoing restraint of the NWS. This is real as our reasoning expands; we can never effectuate complete and general disarmament of nuclear weapons. For instance, if all the nuclear weapons remaining in the world were to be dismantled and completely destroyed today, new nuclear armaments can quickly be produced in the event of global nuclear crisis most especially by States that have perfectly mastered the front-end and the back-end of the nuclear fuel cycle. This is not a theoretical but a real threat.¹⁷ The knowledge of how to build improved nuclear weapons is increasing in the world, undermining the persuasions that total and complete nuclear disarmament is possible.

The tables below show the Status of World Nuclear Forces in the year 2017

Status of World Nuclear Forces 2017*					
Country	Deployed Strategic	Deployed Nonstrategic	Reserve/ Nondeployed	Military Stockpile	Total Inventory
Russia	1,790 ^a	0 ^b	2,700 ^c	4,490	7,000 ^d
United States	1,590 ^e	150 ^f	2,260 ^g	4,000 ^h	6,800 ⁱ
France	280 ^j	n.a.	10 ^j	300	300
China	0 ^k	? ^k	260	260	260 ^k
United Kingdom	120 ^l	n.a.	95	215	215 ^l
Israel	0	n.a.	80	80	80 ^m
Pakistan	0	n.a.	120-130	120-130	120-130 ⁿ
India	0	n.a.	110-120	110-120	110-120 ^o
North Korea	0	n.a.	?	?	? ^p
Total:^q	~3,780	~150	~5,645	~9,585	~14,900¹⁸

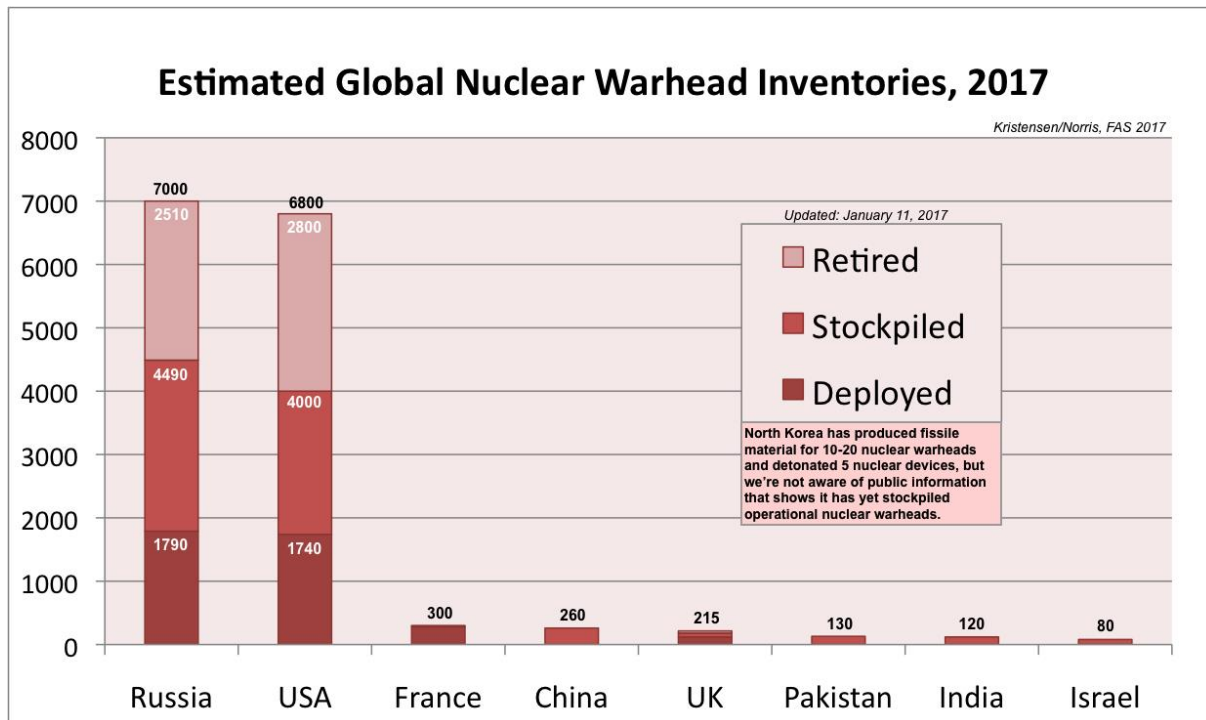
¹⁴ Daniel H Joyner, Recent Development in International Law Regarding Nuclear Weapons [2011] ICLQ 60(1,) 209 - 224

¹⁵ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 13

¹⁶ Ibid 26

¹⁷ Ibid 15

¹⁸ Federation of America Scientists: Status of World Nuclear Forces < <https://fas.org/issues/> Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 13 nuclear-weapons/status-world-nuclear-force> accessed 17 January 2017



1.1.1 Review of Early Efforts of Nuclear Disarmament

From its very inception, the United Nations has enthusiastically pursued the delegitimisation of nuclear weapons. The very first resolution adopted by the United Nations General Assembly in 1946 created a commission to address problems associated with the discovery of atomic energy amongst others.¹⁹ The resolution authorised the commission to present a proposal for “the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.”²⁰ The mandate of the United Nations Disarmament Commission is on the full range of disarmament matters, most especially nuclear disarmament. The United Nations Disarmament Commission is functionally serviced by the United Nations Office for Disarmament Affairs (UNODA) and officially supervised by the Department of the United Nations General Assembly Affairs and conferences service.²¹

Substantially, the United Nations has facilitated various international and multilateral treaties aiming at stopping nuclear proliferation and detonation as well as simultaneously encouraging improvement in nuclear disarmament efforts. Notable amongst these treaties are the Treaty on the Non-proliferation of Nuclear Weapons (NPT), the Treaty Banning Nuclear Weapon Test In The Atmosphere, In Outer Space And Under Water, also known as the Partial Test Ban Treaty (PTBN), and the Comprehensive Nuclear-Test-Ban Treaty (CTBT) which was open for signature in

¹⁹ The United Nations General Assembly (UNGA) adopted by consensus its very first resolution Resolution 1, Establishment of a Commission to deal with the problem raised by the discovering of Atomic Energy, 24 January 1946s

²⁰ UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons) www.un.org/disarmament accessed 11 January 2017

²¹ Ibid UNODA

1996 but yet to be ratified by all member States to come into force, apparently for superficial political discrepancies among member States.²²

Nevertheless, there are also previous several bilateral treaties and reciprocal agreements designed to extensively deescalate or eradicate certain kinds of nuclear weapons and to stop the proliferation of nuclear weapons and their delivery vehicles. Nuclear weapons can be delivered successfully by specially designed and deployable military aircraft bombers as it was the case at the end of the Second World War. Currently, different means of corresponding delivery systems like: MIRVs (Multiple Independently Targetable Re-entry Vehicles); SLCMs (Sea Launched Cruise Missiles); SLBMs (Submarine Launched Ballistic Missiles) and ICBMs (Intercontinental Ballistic Missiles), are all possibly available to Nuclear Weapons States (NWS) and other nuclear weapons possessing States.²³

Besides, there are a number of treaties that hitherto existed between the United States of America (USA) and the defunct Union of Soviet Socialist Republics (USSR) and at the same time a couple of other mutual initiatives within the Nuclear Suppliers Group such as the Missile Technology Control Regime, the Hague Code of Conduct against Ballistic Missile Proliferation, *Wassenaar Arrangement*.²⁴ Also to be mentioned is the Control and Verification of Multilateral Treaties on Disarmament and Non-proliferation of Weapons of Mass Destruction 2011.²⁵

The Nuclear Non-proliferation Treaty (NPT) of July 1 1968 unequivocally requires all States to pursue nuclear disarmament and to share information on nuclear technology for peaceful purposes, while concomitantly upholding the rights of these five States: China, France, Russia, the United Kingdom and the United States known as the Nuclear Weapon States (NWS) to possess nuclear weapons. Consequently, some nations with nuclear ambition and capabilities like Pakistan, Israel, and India have never not joined the NPT.²⁶ Based on political reservations against NWS, North Korea withdrew its membership from the NPT in January 10, 2003.²⁷

Essentially, these above-mentioned treaties and the entire legal discourse on nuclear weapons disarmament fall under the scope of International Law. Therefore, the proficient knowledge of the law of treaties articulately codified in the 1969 Vienna Convention on the Law of Treaties (VCLT) is fundamental to the proper understanding of nuclear disarmament process which in itself is embedded in the international law of treaties and how international law works.²⁸ The VCLT Article 2(2) defines a treaty thus:

²² UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons) www.un.org/disarmament accessed 11 January 2017

²³ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 17

²⁴ Ibid

²⁵ Srikanth Hariharan, Nuclear Safety, Liability and Non-Proliferation: A Legal Insight [2012] IELR 3, 108 - 120

²⁶ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 355

²⁷ Srinivasarajan, *State Participation in International Treaty Regimes* (Ashgate Publishing Company, 2009) 75

²⁸ Malcolm D. Evans, *International Law* (Oxford University Press, 3rd edn, 2010) 172

*“[a]n international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation.”*²⁹

The provisions of the 1969 VCLT apply to State parties in respect of treaties to which other forms of subjects of international law like international organisations are also parties in line with Article 3(c).³⁰ Though, the VCLT is not retroactive; as it only applies to treaties concluded upon its entry into force, it has applicable residual capacity, unless a particular treaty provides or parties agree otherwise.³¹ However, those binding treaties which deal with nuclear weapons such as the NPT, the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and regional agreements such as the Nuclear Weapons Free Zones should be guided by the spirit and letter of the 1969 VCLT for strict compliance.³²

The term ‘treaty’ is inter-changeably used as a standard word to mean various international agreements and contractual arrangements concluded amongst States for reciprocal benefits. These international mutual agreements are also known by several names ranging from the word treaties itself to, protocols, concordats, conventions, covenants, pacts, charters, and declarations. Irrespective of these terminologies, what is paramount is that the mechanism in question has the effectiveness of the law and the parties’ concerned have the commitment to form a legally binding and enforceable agreement.³³

1.1.2 International Law as a Framework of State Practice

International law offers the framework within which States transact their international affairs, generally accepting certain mutual constraints and modifying exceptions raised³⁴ on nuclear weapons disarmament and for ensuring international peace and security. As opined by Oppenheim: “international law has grown into the most effective weapon for preserving global peace and security.”³⁵

There is a resilient normative procedure, highly considered by its advocates as mandatory and possessing a range of sanctions that are not always effective or enforceable but existing; that States affairs is openly founded on international law, with the exception of the cases of morality or political considerations.³⁶ Nonetheless, ethical questions and politics are profoundly involved in any analysis of nuclear weapons and any attempt to deal solely with the legal is subject to justifiable claims of unbalanced consideration of the dilemma that is faced.³⁷ Consequently, this research goes beyond

²⁹ Vienna Convention on the Law of Treaties (VCLT), May 23, 1969, art 2(2)

³⁰ Ibid, art 3 (c)

³¹ Malcolm D. Evans, *International Law* (Oxford University Press, 1st edn, 2003) 176

³² Ibid 806

³³ Alina Kaczorowska, *Public International Law* (Routledge Taylor & Francis Group, 4th edn 2010) 77

³⁴ Malcolm N. Shaw, *International Law* (Grotius Publications Ltd, 2nd edn, 1986) 18

³⁵ Ademola Abass, *International Law: Text, Cases and Materials* (Oxford University Press, 2012) 2

³⁶ Malcolm N. Shaw, *International Law* (Grotius Publications Ltd, 2nd edn, 1986) 18

³⁷ Ibid 1

the legal framework to include the ethical and political dimensions to the discourse of nuclear disarmament.

Can a State use its own national law as a justification for avoiding its disarmament obligations under international law? International law takes pre-eminence over any internal law of a State, and national law on the international sphere cannot take precedence over international law.³⁸ The rights and obligations a State has under international law, on the international plane, supersedes any rights or duties it may have under its national law.³⁹ A State party that is a signatory to a treaty that is binding under international law, its non-compliance cannot be excused as a matter of international law on the ground that the treaty was or has been declared invalid under national law by such State's supreme court.⁴⁰

Exceptionally, national law has superseded international law on the national plane in the case of *Avena and Other Mexican Nationals (Mexico v United States of America)*⁴¹ where the International Court of Justice (ICJ) held that as a matter of international law, the United States of America cannot invoke national law procedural default rules to preclude giving full effect to rights for certain individuals arising under the Vienna Convention on Consular Relations.⁴² International law regulates not only how States behave towards one and another, but also how States deal with their own subjects and foreigners.⁴³

International law is influenced by any or all of these three unanimously acceptable apparatuses: international treaties; international custom approved as the universal practice and principles of law by States judicial applicable decisions; and teachings and writings of most highly qualified publicists or internationalists as veritable resources of subsidiary determination of the law.⁴⁴ These sources especially international treaties will be explored in the course of this research,

In the course of making law through the medium of State practice, it is pertinent to emphasise that the impact of States mainly concerned in the subject-matter in question will be correspondingly higher⁴⁵ than States with little or no interest, such that "doctrinal elaboration of old classical international principles and rules to meet the new societal problems presented by emergence of nuclear weapons" will be disregarded.⁴⁶ Hence, conceptual enquiry implies that there is much of philosophical and theoretical rationale in the phenomenon of law⁴⁷ and it is therefore true in the interest of public conscience that the law should be necessarily coercive as it pertains to nuclear disarmament.

³⁸ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 7

³⁹ Ibid

⁴⁰ Vienna Convention on the Law of Treaties 1969, arts 27 & 46

⁴¹ *Avena and other Mexican Nationals (Mexico v United States of America)* [2004] ICJ 12 GL No. 128

⁴² *Case Concerning Avena and other Mexican Nationals (Mexico v United States of America)* International Court of Justice (ICJ) 2004 12, General list No. 128 (March 31, 2004)

⁴³ Ademola Abass, *International Law: Text, Cases and Materials* (Oxford University Press, 2012) 2

⁴⁴ Status of the International Court of Justice (ICJ), art 38(1)

⁴⁵ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987) vii

⁴⁶ Christine Gray, "Nuclear Weapons and Contemporary International Law" [1990] ICLQ 39(1), 235 - 236

⁴⁷ J.E. Penner and E. Melissaris, *Jurisprudence* (Oxford University Press, 5th edn, 2012) 1

Conceptually, there have been argument by some internationalists and publicists, that the use of nuclear weapons is not controlled by previous customary international law.⁴⁸ This argument is based upon the conclusion of the permanent Court of International Justice in the *Lotus Case*,⁴⁹ that “the rule of law binding upon States . . . emanate from their own free will as expressed in conventions or by usage generally accepted as expressing principle of law”.⁵⁰

In the opinion of Falk in response to the aforementioned case, this argument is weak and not persuasively resounding. He argued that it is “facile and unpersuasive” to extend the *Lotus* reasoning to the considerably dissimilar circumstances surrounding the question of the legal status of nuclear weapons.⁵¹ Evidently, a weak argument does not get stronger when more weak claims and premises are added to it.⁵² Unmistakably, the use of nuclear weapons is already prohibited by certain rules of customary international law, as well as by certain conventional rules which apply to such weapons analogously or interpretatively.⁵³ Hence, the *United Kingdom Manual of Military Law* acknowledges that:

*“[I]n the absence of any rule of international law dealing expressly with it, the use which may be made of particular weapon will be governed by the ordinary rules and the question of the legality of its use in any particular case will, therefore, involve merely the application of the recognised principles of international law.”*⁵⁴

1.1.3 The World Court Project

Due to the existing apprehension emanating from the very existence of nuclear weapons, there is an extensive feeling that the nuclear arms race had become uncontrolled and uncontrollable, thus casting aspersion on the Nuclear Weapon States (NWS) commitments to curtail the upward escalation in numbers and the sophistication of the their devastating nuclear armouries.⁵⁵

Based on the above perception, the International Peace Bureau (IPB), the International Physicians for the Prevention of Nuclear War (IPPNW), and the International Association of Lawyers Against Nuclear Arms (IALANA) collectively founded the World Court Project in 1992. Indicatively, peace activists across the globe, international medical doctors and health workers, and ultimately, international lawyers forged a common cause of advocating for nuclear weapons disarmament through the instrument of international law.⁵⁶

⁴⁸ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987) 23

⁴⁹ *France v Turkey* [1925] PCIJ Reports, Series A No. 10

⁵⁰ Ibid

⁵¹ RA Falk, “Towards a Legal Regime for Nuclear Weapons” [1983] McGill Law Journal, vol 28, 519 - 527

⁵² Bruce Blair, Matt Brown and Richard Burt, “Can Disarmament Work? Debating the Benefit of Nuclear Weapons [July/August 2011] Foreign affairs 90.4, 173 – 178

⁵³ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987) 22

⁵⁴ Her Majesty’s Stationary Office (HMSO) 1958, part III: The Law of War on Land

⁵⁵ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987)2

⁵⁶ George Farebrother, ‘The Law and Nuclear Weapons’ [2005] <http://www.abolition2000europe.org> accessed 2 March, 20015

The World Court Project had invoked the concept of *The Public Conscience*, which is highly esteemed in international law. 3.6 million *Declarations of Public Conscience*, stating the belief of ordinary citizens that nuclear weapons are immoral and unethical, were sampled globally in 36 languages, 110,000 of the sampled declaration collected were from the United Kingdom. This *Declarations of Public Conscience* was officially received by the Registrar of the International Court of Justice (ICJ) with the presence of all the judges.⁵⁷

The trilateral agreement (tripartite pact) of the Limited Test Ban Treaty (LTBT) of August 5 1963 was concluded amongst the U.S., U.S.S.R., and the U.K. prohibiting all nuclear explosions with the exception of underground tests.⁵⁸ The United States as well as few other nuclear weapon States currently practice self-imposed moratorium on any underground nuclear tests, while India and Pakistan respectively conducted such tests openly in 1998.⁵⁹

Following the LTBT, the United Nations General Assembly in 1996 adopted the Comprehensive Test Ban Treaty (CTBT) that bans all States from conducting any nuclear tests irrespective of the purposes of such nuclear development. The UNGA also established a surveillance system of seismic incidents and on-site inspections.⁶⁰

Indisputably, the treaty on the Limitation of Anti-Ballistic Missile System (ABM Treaty) of May 26 1972, which was amended in 1973, is one of the most important nuclear arms control agreements. The treaty which was between the United States and the defunct Soviet Union provides that each State could have only one very restricted ABM deployment area, thereby precluding either State from developing a nationwide ABM defence. Logically, since each party would have the ability to retaliate against the other party, the ABM Treaty was fractioned to make it unlikely that both parties would resort to a nuclear first strike.⁶¹

Practically, this was the reason why the former U.S. President, George W. Bush declared in December 2001 that the United States was withdrawing from the ABM Treaty, to allow America have the autonomy to develop and deploy a its own national missile defence system capable of preventing ballistic missiles that could be launched by “rogue” States or “Axis of Evil” with nuclear weapons capabilities.⁶²

Other kinds of reciprocal agreements such as the Strategic Arms Limitations Talks (SALT) agreement that snowballed into the ABM Treaty, the Strategic Arms Reduction Talks (START) agreement, and the Intermediate Nuclear Forces (INF) Treaty, were all

⁵⁷ George Farebrother, ‘The Law and Nuclear Weapons’ [2005] <http://www.abolition2000europe.org> accessed 2 March, 20015

⁵⁸ Treaty Banning Nuclear Weapons Test in the Atmosphere, in Outer Space and Under Water (The Limited Test Ban Treaty), August 5, 1963

⁵⁹ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 355

⁶⁰ United Nations General Assembly Resolution on the Comprehensive Nuclear Ban Test, A/RES/50/245, September, 1996

⁶¹ Treaty Between the United States of America and the Union of Soviet Socialist Republics on The Limitation of Anti-Ballistic Missile System (ABM Treaty), May 26, 1972

⁶² Treaty Between the United States of America and the Union of Soviet Socialist Republics on The Limitation of Anti-Ballistic Missile System (ABM Treaty), May 26, 1972

intended to restrict, reduce, and feasibly to get rid all types of nuclear weapons during the Cold War period.⁶³

Evidently, some of these treaties did not come into force, while others have been disputed after the Cold War period as no longer contemporaneous and conventional with the 21st century. The United States of America and the Russian Federation consolidated upon these treaties in May 2002 by concluding a Strategic Offensive Reduction Treaty (SORT), which stipulated the reduction of their nuclear warheads. In signing this treaty former U.S. President George W. Bush said: “[t]his treaty liquidates the Cold War legacy of nuclear hostility between our countries.”⁶⁴

The joint declaration of the United States of America and the Russian Federation in several documents on set of issues such as arms control on the provisions of confidence, transparency and predictability in further strategic offensive reduction has passed the test of time and have become a prelude to global efforts and multilateral negotiations on nuclear disarmament.

On 27 October 2016, The United Nations General Assembly (UNGA) First Committee, for the first time adopted Resolution A/C.1/71/L/41 – “Taking Forward Multilateral Nuclear Disarmament Negotiations” thereby calling for the negotiations for the Nuclear Weapons Convention (NWC). The NWC will outlaw the use, possession, development, testing, deployment and transfer of nuclear weapons with the mandate of internationally verifiable dismantlement of all nuclear arsenals. The negotiations for the realisation of this resolution would be held twice in 2017. The First phase of the negotiations would be from March 27 – 31 and the second phase would run from June 15 to July 7. One hundred and thirteen (113) countries supported this resolution, 35 States including the United States, United Kingdom, Russia, France and Japan voted against and thirteen (13) nations including China abstained.⁶⁵

In conjunction and in consolidation of the aforementioned Resolution, the United Nations General Assembly (UNGA) in December 3 2016 adopted a landmark Resolution 71/71 backed by more than 140 States, calling for the earnest start of negotiations on an international treaty to prohibit and eliminate nuclear weapons and affirming its decision to hold a “High Level Conference” on Nuclear Disarmament not later than 2018 to review progress made.⁶⁶

The emergence of the Treaty on the Prohibition of Nuclear Weapons (TPNW) in July 2017 which underlying tenet is that nuclear weapons are legally unacceptable is both a landmark and remarkable achievement of the multilateral disarmament efforts. The

⁶³ Ibid

⁶⁴ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 356

⁶⁵ United Nations General Assembly (UNGA) Resolution on “Taking Forward Multilateral Nuclear Disarmament Negotiations,” A/C.1/71/L.41, 27 October 2016

⁶⁶ United Nations General Assembly (UNGA) Resolution on “Follow-up to the 2013 High-Level Meeting of the General Assembly on Nuclear Disarmament,” A/71/71, December 3 2016

TPNW will enter into force 90 days after the 50th instrument of ratification, acceptance, approval or accession has been deposited.⁶⁷

1.2 Research Aim and Objectives

0.1 Aim

- The aim of this research is to stand the test of time as a consequential legal and academic contribution to the argument and rationale for nuclear weapons disarmament.

0.2 Objectives

- To examine the criticism against nuclear weapons disarmament, which expresses that disarmament, would undermine deterrence if nuclear weapons were eliminated on unilateral basis.
- To analytically assess the framework of applicable International Humanitarian Law to respond to the danger posed by the horrifically destructive force of nuclear weapons in the world.
- To critically analyse and assess the multilateral and international legal frameworks on nuclear weapons disarmament, including: changes in organisational and international approach; nuclear security approach; summits and conferences on nuclear weapons non-proliferation and disarmament; and the implementations and enforcement of nuclear weapons treaties.⁶⁸

1.3 Research Questions

Essentially, in order to achieve the aforementioned aim and objectives, this research pose some fundamental questions and seek for satisfactory answers. The questions are:

Q.1 What is the sovereign equality rationale behind the designation of the five permanent United Nations Security Council memberships of China, France, Russia, United Kingdom and the United States as Nuclear Weapon States (NWS) in contradistinction, to the rest of world as Non-Nuclear Weapon States (NNWS) in view of multilateral and international legal frame work on nuclear weapons disarmament?

Q.2 Conceptually, would it be possible to use nuclear weapons, bearing in mind their indiscriminate destructiveness without violating the laws of armed conflicts also known as International Humanitarian Law (IHL)? .

Q.3 Is the doctrine of nuclear deterrence which is the rationale used by the Nuclear Weapon States (NWS) to justify their possession and maintenance of their nuclear

⁶⁷ Nuclear Threat Initiative (NTI) – Treaty on the Prohibition of Nuclear Weapons (TPNW) < www.nti.org/learn/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons> accessed 18 August 2017

⁶⁸ Ibrahim Sa'id Ibrahim, "An Historical Transitional Nuclear Moment: The Nuclear Cliff 2009/2010" [2010] IJNL 3(1), 19 -32

armaments and nuclear warheads in the midst of legally binding effects of the various Nuclear-Weapon-Free Zones (NWFZs) recognised by the United Nations and the international treaties on nuclear weapons a military illusion, or a political solution to the discourse of nuclear disarmament?

The Links of the Research Objectives to the Research Questions in the Thesis

<i>Research Objectives</i>	<i>Research Questions</i>	<i>Chapters and Sections</i>
R.O 1, To examine the criticism against nuclear weapons disarmament which expresses that disarmament would undermine deterrence if nuclear weapons were eliminated on unilateral basis.	R.Q.3 Is the doctrine of nuclear deterrence which is the rationale used by the Nuclear Weapon States (NWS) to justify their possession and maintenance of their nuclear armaments and warheads in the midst of legally binding effects of the various Nuclear-Weapon-Free-Zone (NWFZs) recognised by the United Nations and the international treaties on nuclear weapons a military illusion or political solution to the discourse on nuclear disarmament.	Chapter 4 Section 4.4 Page 164 The Doctrine of Nuclear deterrence: Military Illusion or political Solution? Rationale for disarmament
R.O 2, To analytically assess the framework of applicable International Humanitarian Law to respond to the danger posed by the horribly destructive force of nuclear weapons in the world.	R.Q.2 Conceptually, would it be possible to use nuclear weapons, bearing in mind their indiscriminate destructiveness without violating the laws of armed conflicts also known as International Humanitarian Law (IHL)?	Chapter 3 Section 3.4 Page 113 The Use of Nuclear Weapons in Warfare and the Principles of International Humanitarian Law (IHL)
R.O.3, To critically analyse and assess the multilateral and international legal frameworks on nuclear weapons disarmament, including: changes in organisational and international approach; nuclear security approach; summits and conferences	R.Q.1 What is the sovereign equality rationale behind the designation of the five permanent United Nations Security Council membership of China, France, Russia, United Kingdom and the United States as Nuclear Weapon States (NWS) in contradistinction, to the rest of the world as Non-Nuclear Weapon States (NNWS)	Chapter 3 Section 3.13 Page 149 The Legal and Humanitarian Imperatives for Nuclear Disarmament Chapter 4 Section 4.11

on nuclear weapons non-proliferation and disarmament; and the implementations and enforcement of nuclear weapons treaties	in view of multilateral and international legal frame work on nuclear weapons disarmament	Page 199 Strategies for Nuclear Disarmament and Enforcement of Nuclear Non-Proliferation
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1.4 Research Rationale

The rationale behind the choice of this topic is the obvious failure of the Nuclear Weapon States (NWS) to eliminate their nuclear armaments. The NWS have solemnly promised the international community to “negotiate in good faith” to achieve nuclear disarmament by NPT. Furthermore, they extended their obligations to abolish their nuclear weapons at the 1995, 2000, 2005, 2010 and 2015 Non-proliferation of Nuclear Weapon Treaty (NPT) Review and Extension Conferences.⁶⁹ Notably, the progress of the Non-proliferation of Nuclear Weapons Treaty is evaluated every five years at an international Review Conference.⁷⁰

The States recognised by the NPT as NWS are the Permanent Five Members (P5) United Nations Security Council (United States, Russia, Britain, France, and China); while other States with nuclear capabilities who are signatories to the Treaty are classified as parties to the Treaty. Categorically, the provision of Article VI of the NPT expresses thus:

“Each of the parties to the Treaty undertakes to pursue negotiation in good faith on effective measures relating to cessation of 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”.⁷¹

However, the seemingly reluctance or the slow pace and nonchalant attitude of the NWS to eliminate their nuclear warheads in line with the aforementioned provision of the NPT, do not only result in the proliferation of nuclear weapons to other nations and potentially or possibly terrorist to groups. This provides the justification for Non-Nuclear Weapon States (NNWS) especially States with less nuclear and military forces to maintain their nuclear arsenal on the ground on *Nuclear Deterrence* which is obviously counter-productive to the process of nuclear disarmament.

Based on this backdrop, this research argues that the very existence of nuclear weapons and their annihilating capabilities on earth invariably opens the possibility that nuclear exchange or war might happen either advertently or inadvertently. This possibility is illustrated in the Cuba Missile crisis, when the United States and the defunct Soviet Union engaged in a 13-day tense political and military standoff in October 1962 over the installation of Soviet nuclear-armed missiles in Cuba just 90

⁶⁹ 2005 Review Conference of the Parties to the Treaty of Non-proliferation of Nuclear Weapons (NPT) 1968, (2-27 May 2005, New York)

⁷⁰ The Treaty on the Non-proliferation of Nuclear Weapons (NPT), July 1 1968, art VIII, para 3

⁷¹ Treaty on the Non-proliferation of Nuclear Weapons (NPT), July 1 1968, art VI

miles from the shore of US. This was discovered by a US surveillance aircraft on 16 October 1962 and this brought the world to the brink of nuclear war.⁷²

Similarly, on 9 October 1979 a war game simulation was erroneously sent into a North American Air Defence (NORAD) computer. The immediate response was that interceptor jets were scrambled and nuclear bombers were placed on war alert before the error was discovered.⁷³

Secondly, this research also aims to disprove the claim by critics of nuclear weapons disarmament that *Nuclear Deterrence* serve to prevent war and it is the best way to bring about peace, adding that no State with nuclear weapons has been attacked by another State with nuclear warheads for the fear of nuclear retaliation. However, the aforementioned Cuba missile episode of 1962 and the 1979 war game simulation erroneously sent to a North America Air Defence (NORAD) computer show the inherent danger which the very existence nuclear weapons pose.

1.5 Thesis Statement

This research which unravels contemporary discourse on nuclear weapons disarmament is motivated by international negotiations and globally entrenched nuclear hegemony by the NWS and the looming danger of nuclear crisis across the world such as North Korea and other “rogue” States unbridled nuclear ambitions. It is clear that nuclear weapons disarmament is a commonly known controversy in the international community. Different scholars, political, professional and academic commentators have given opinions to the debate associated with nuclear disarmament. Nevertheless, the approach and the method adopted by this research is contribution to academic knowledge and legal research.

This doctoral thesis stands as an academic legal contribution to the campaign for nuclear weapons disarmament. The research looks beyond the size and power of the NWS, their nuclear capabilities, and their ideological positions; and advocate for total and general disarmament through the framework of international treaties as an absolute commitment and obligation.

Moreover, this study is contemporaneous with current international legal efforts by the United Nations and its resolutions in addressing international security concerns like nuclear terrorism and the unbridled predisposition for nuclear crisis and superiority amongst the NWS and their diplomatic efforts to circumvent the campaign for nuclear weapons disarmament, which is vital for ensuring substantial compliance on nuclear disarmament commitments.

Meanwhile, since the topical issue of nuclear weapons disarmament in international law is a rare academic research area, there is no gainsaying that this thesis is consequential to the larger society: States governments, the international community, international organisations, academic community, Non-Governmental Organisations

⁷² Cuba Missile Crisis of 1962 <<http://www.history.com/topics/cold-war/cuba-misile-crisis> > accessed 24/02/2014

⁷³ Nathaniel S. Borenstein, ‘My Life as a NATO Collaborator’ [1989] Bulletin of Atomic Scientists, 45(3), 14 – 20 Published by Education for Nuclear Science, Inc <http://books.google.co.uk/books?id> accessed 19 January 2017

(NGO), civil society groups, Military R&D (Research and Development) and all and sundry.

Following an articulated proposal detailing measures the NWS should adopt to actualise the recommendations of the action plan that calls for periodic reporting on the status of their nuclear forces in the 2010 Non-nuclear Proliferation Treaty (NPT) Review Conference, by a group of Non-nuclear Weapons States (NNWS).⁷⁴ It is the aim of this research therefore to endorse the NNWS proposal and to explore ways of effectively contributing to process of nuclear disarmament.

Consequently, it is essential to indicate that this research does not stand as an epistemic privacy, dogmatic empiricism, or infallible *ex cathedra* that forecloses the international legal approach to ensure complete and general nuclear disarmament. Rather, this thesis is ready for further research, constructive criticism and professionally scrutinising commendations and recommendations.

1.6 Key Concepts

The key concepts of this research are essential to its analysis. These include nuclear weapons, disarmament, international law, international treaties, multilateralism and jurisprudence. The jurisprudential approach explores the conceptual and controversial positions on nuclear weapons disarmament through analytical rationale of legal determinacy of the theory of legal positivism and ethical legitimacy of the natural law theory. Also, multilateralism as “international governance of the many”⁷⁵ (global institutions and conglomeration); and international treaties as legally binding instruments are all subsumed under international law which governs the international community.

1.6.1 Nuclear Weapons: Definition and Explanation

Nuclear weapons are explosive and destructive devices that derive their destructiveness from nuclear reactions, through fission or the combination of both fission and fusion.⁷⁶ These nuclear reactions discharge enormous quantities of energy from infinitesimally small amount of matter. The first nuclear fission (atomic) bomb test discharged the same amount of energy as around 20,000 ton of TNT (Tri-nitrotolence).⁷⁷ Similarly, the first thermonuclear (hydrogen) bomb test discharged an amount of energy approximately 10,000,000 tons of TNT (Tri-nitrotolence).⁷⁸

⁷⁴ “Condition towards Zero – 11 Benchmark for Global Nuclear Disarmament, Statement by Hirofumi Nakasone, Japanese Minister for Foreign Affairs (2009)

<<http://www.mofa.go.jp/policy/un/disarmament/arm/state0904.html> > accessed 15 January 2013

⁷⁵ Miles Kahler, ‘Multilateralism with Small and Large Numbers’, [1992] International Organisation Foundation, MIT Press 46 (3) 681 -708

⁷⁶ Nuclear Weapons/Encyclopaedia Britannica, www.britannica.com/EBchecked/topic/421827/nuclear-weapons accessed 31 January 2015

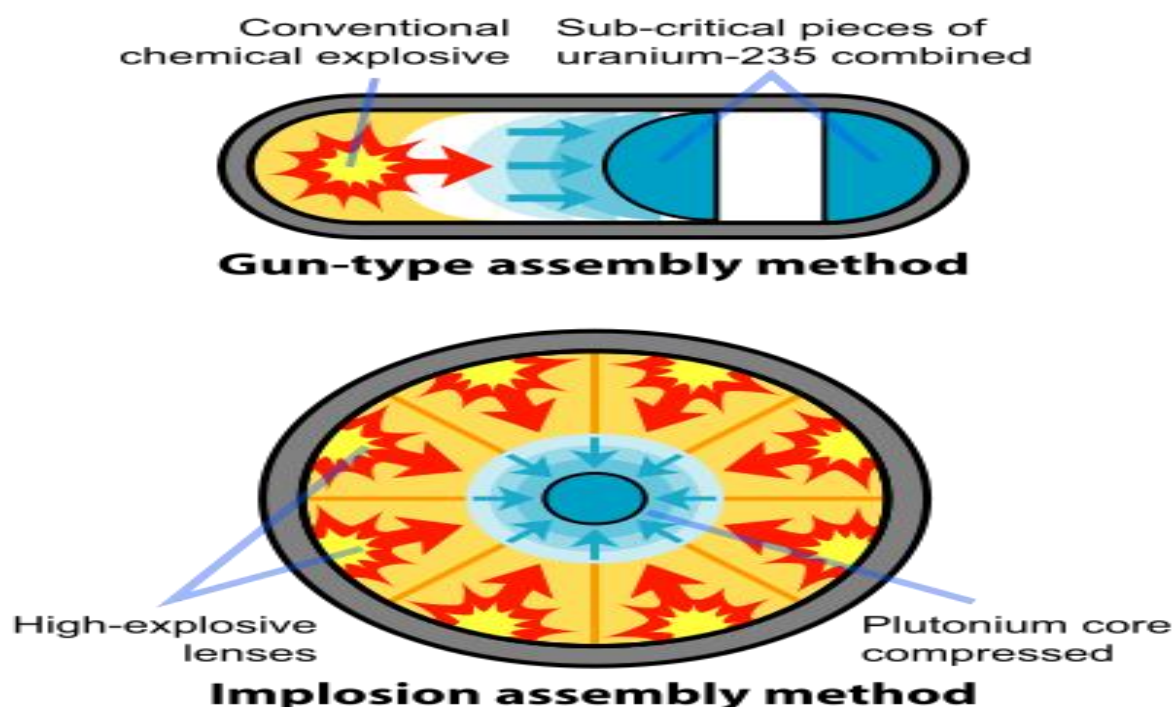
⁷⁷ Nuclear Weapons/Encyclopaedia Britannica, www.britannica.com/EBchecked/topic/421827/nuclear-weapons accessed 31 January 2015

⁷⁸ Donald MacKenzie and Graham Spinardi, “Weapons Design, and the Un-invention of Nuclear Weapons” [1995] AJS 101(1), 44 - 99

All existing nuclear weapons get some of their explosive energy from nuclear fission reactions. Weapons whose explosive production is exclusively from fission reactions are known as atomic bomb or atom bomb (A-bomb).⁷⁹ Fission weapons are weapons assembled with a collection of fissile materials of enriched uranium or plutonium into a supercritical mass.⁸⁰

A supercritical mass is the quantity of material required to start off an exponentially growing nuclear chain reaction either through the shooting of one piece of sub-critical material into another (the gun method) or through compressing by using explosive lenses of sub-critical sphere materials of chemical explosives as many times of its original density (the implosion method). The later implosive method is more complicated and sophisticated than the gun method and only the implosive method can be used if the fissile material is plutonium.⁸¹

⁸² Types of Nuclear Weapons: CTBTO (Comprehensive Nuclear-Test-Ban Treaty Organisation) Preparatory Commission www.ctbto.org/nuclear-testing/types-of-nuclear



The most important challenge in all nuclear weapon designs is to ensure that a major fraction of the fuel is consumed before the weapon explodes itself. The total amount of energy discharged by fission bombs can range from the approximate of just under a ton of TNT, to upward 500,000 (500kilotons) of TNT. All fission reactions automatically generate fission result; the radioactive remain of the atomic nuclei split

⁷⁹ Benjamin Frankel (edt), *Opaque Nuclear Proliferation: Methodological and Policy Implications* (Frank Cass and Company Ltd, 1991) 180

⁸⁰ Fission Weapons Designs – The Nuclear Weapons Archive
<https://www.nuclearweaponarchives.org/Nwfaq/Nfaq4-2.html> accessed 31 January 2015

⁸¹ Fission Weapons Designs – The Nuclear Weapons Archive
<https://www.nuclearweaponarchives.org/Nwfaq/Nfaq4-2.html> accessed 31 January 2015

⁸² Types of Nuclear Weapons: CTBTO Preparatory Commission < www.ctbto.org/nuclear-testing/types-of-nuclear-weapons> accessed 31 January 2015

by the fission reaction.⁸³ Many fission products are either highly radioactive (short lived) or moderately radioactive (long lived) and as a result there can be severe form of radioactive contamination if not fully contained. Fission products are the principal radioactive component of nuclear outcome.⁸⁴

The most frequently used fissile materials for nuclear weapons purpose have been uranium-235 and plutonium-239.⁸⁵ Less frequently used has been uranium-233. Neptunium-237 and some isotopes of americium may be usable for nuclear explosives. Thermonuclear weapons also known as the hydrogen bombs (H-bombs) are other kinds of nuclear weapons that generate significant amount of its energy in nuclear fusion reactions.⁸⁶ The H-bombs depend on fusion reactions between isotopes of hydrogen called deuterium and tritium. These devices derive a considerable segment of their energy from fission as fission weapons are needed to cause fusion reactions, which in turn will stimulate extra fission reactions.⁸⁷

Amongst all the nations in the world, only the United States, United Kingdom, China, France, Russia, and India have known to have carried out thermonuclear weapons tests.⁸⁸ However, it has not been verified whether India conducted a real multi-staged thermonuclear weapon detonation test. Thermonuclear weapons are usually more complex to effectively design and implemented than archaic fission weapons.⁸⁹

All deployable nuclear weapons in the world today use the thermonuclear design because it is more efficient and effective. Thermonuclear bombs function through the usage of energy of a fission bomb to condense and heat up fusion fuel through the Teller-Ulam design that stimulates all multi-megaton yield hydrogen bombs. The biggest nuclear weapon ever detonated was the USSR *Tsar Bomba* which discharged an estimated energy of over 50 million tons (50 megatons) of TNT and 3,800 times more powerful than the Hiroshima bomb.⁹⁰ Almost all the thermonuclear weapons are relatively smaller than the USSR *Tsar Bomba*.⁹¹

⁸³ Fission Weapons Designs – The Nuclear Weapons Archive

<https://www.nuclearweaponarchives.org/Nwfaq/Nfaq4-2.html> accessed 31 January 2015

⁸⁴ Donald MacKenzie and Graham Spinardi, "Tacit Knowledge, Weapons Design, and the Un-invention of Nuclear Weapons" [1995] *AJS* 101(1), 44 - 99

⁸⁵ Fission Weapons Designs – The Nuclear Weapons Archive

<https://www.nuclearweaponarchives.org/Nwfaq/Nfaq4-2.html> accessed 31 January 2015

⁸⁶ Donald MacKenzie and Graham Spinardi, "Tacit Knowledge, Weapons Design, and the Un-invention of Nuclear Weapons" [1995] *AJS* 101(1), 44 – 99

⁸⁷ Arjun Makhijani et al, *Nuclear Wastelands: A Global Guide to Nuclear Production and its Health and Environmental Effects* (MIT Press, 1st edn, 2000) 25

⁸⁸ Types of Nuclear Weapons: CTBTO (Comprehensive Nuclear-Test-Ban Treaty Organisation) Preparatory Commission < www.ctbto.org/nuclear-testing/types-of-nuclear-weapons > accessed 31 January 2015

⁸⁹ Elements of Thermonuclear Weapons Design, <https://www.nuclearweaponarchive.org/Nwfaq4-4.html> accessed 31 January 2015

⁹⁰ Elements of Thermonuclear Weapons Design, <https://www.nuclearweaponarchive.org/Nwfaq4-4.html> accessed 31 January 2015

⁹¹ Ibid

The table below highlight the difference between Atomic Bomb and Hydrogen Bomb

<i>Atomic Bomb</i>	<i>Hydrogen Bomb</i>
Atomic bombs release atomic energy through nuclear fission reactions from large unstable radioactive elements like uranium or plutonium.	Hydrogen bombs (H-bombs) also known as thermonuclear weapons are more complex and larger than atomic bomb and their fusion reactions are from hydrogen isotopes known as deuterium and tritium fuse to form helium in releasing energy.
In atomic bombs, only fission reactions take place.	In hydrogen bombs, both fission and fusion reactions take place.
Atomic bombs are simpler than hydrogen bombs	Hydrogen bombs release much more energy than atomic bombs because hydrogen bombs contain several elements of atomic bombs
Atomic bombs release split of huge amount of atomic energy	Hydrogen bomb is up to 1,000 times more powerful than an Atomic bomb

Some nuclear weapons are specifically designed for a specific use.⁹² The *boosted* fission weapon is a nuclear bomb that accelerates its explosiveness by a considerable amount of fusion reactions and it is not a fusion bomb.⁹³ The neutrons generated by the fusion reactions in the *boosted* bomb provide the efficiency of the fission bomb.⁹⁴ A neutron bomb is thermonuclear weapon that produces a reasonably small explosion but with a rather large amount of neutron radiation. The neutron bomb is targeted to cause colossal casualties when used and at the same time leaving infrastructures on the whole intact with negligible amount of nuclear fallout.⁹⁵

A thermonuclear weapon weighing slightly more than 2,400 pounds that is, 1,100 kg can produce an explosive and destructive force analogous to the detonation of more than 1.2 million tons or 1.1 million tonnes of TNT.⁹⁶ Invariably, a small nuclear device no larger than the normal size of a bomb can catastrophically devastates an entire city through its explosions, fire, and radiation.⁹⁷ The explosion of any nuclear weapon is simultaneously followed by a blast of neutron radiation.⁹⁸

A nuclear weapon coated with fitting materials such as cobalt or gold produces a device known as a *salted bomb*. Nuclear weapons alongside with biological weapons and

⁹² Ibid

⁹³ Alexander De Volpi et all, *Nuclear Shadowboxing: Contemporary Threats from Cold War Weaponry* (Fidlar Doubleday, vol 1: Cold War Redux, 2004) 15

⁹⁴ Ibid, p 20

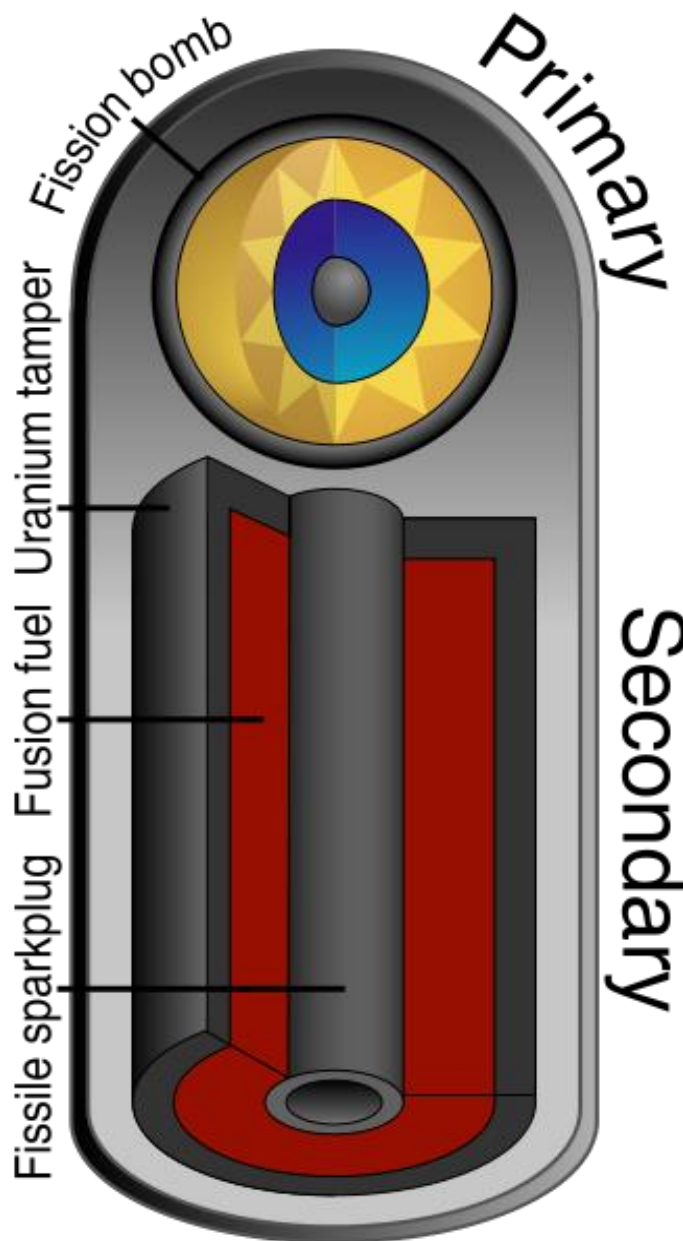
⁹⁵ Ibid

⁹⁶ Types of Nuclear Weapons: CTBTO (Comprehensive Nuclear-Test-Ban Treaty Organisation) Preparatory Commission < www.ctbto.org/nuclear-testing/types-of-nuclear-weapons > accessed 31 January 2015

⁹⁷ UNDOA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/nuclear accessed 31 January 2015

⁹⁸ Alexander De Volpi et all, *Nuclear Shadowboxing: Contemporary Threats from Cold War Weaponry* (Fidlar Double, vol 1: Cold War Redux, 2004) 15

chemical weapons are classified as Weapons of Mass Destruction. (WMD).⁹⁹ The production, acquisition, conveyance, controls, as well as the legality of the use of threat or otherwise of nuclear weapons has been controversial and thematic concern of international law in terms of international diplomatic relations.



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Basic design of hydrogen bomb: a fission bomb uses radiation to compress and ignite a separate section of fission fuel

Types of Nuclear Weapons: CTBTO (Comprehensive Nuclear-Test-Ban-Treaty Organisation) Preparatory Commission www.ctbto.org/nuclear-testing/types-of-nuclear-weapons

⁹⁹ Ibid

¹⁰⁰ Types of Nuclear Weapons: CTBTO Preparatory Commission < www.ctbto.org/nuclear-testing/types-of-nuclear-weapons > accessed 31 January 2015

In the history of warfare in the world, nuclear weapons have only been used twice. The atomic bombing of the cities of Hiroshima and Nagasaki in Japan, executed by the United States of America during the final stage of the World War II in 1945.¹⁰¹ The bombing of Hiroshima was carried out on August 6, 1945 at about 8:15 in the morning with an American B-29 Bomber code-named the *Enolay Gay* or “*Little Boy*” which released an atomic bomb at the height of 31,000 feet above the city.¹⁰² In the same vein, in August 9 1945, three days after the bombing of Hiroshima the United States also bombed Nagasaki. In the bombing of Nagasaki, the U.S. B-29 Bomber dropped a single MK-II code named “*Fat Man*” atomic bomb over the city.¹⁰³ These two bombings resulted in the deaths of around 200,000 including civilians and military personnel as well as various degrees of acute injuries sustained from the explosions by innocent victims.¹⁰⁴

Since the atomic bombing of Hiroshima and Nagasaki with nuclear weapons, nuclear weapons have been detonated over two thousand times for demonstrations and testing purposes.¹⁰⁵ Not too many nations possess nuclear weapons in the world and some countries are suspected of either secretly or openly seeking to have them. However, these countries have detonated nuclear weapons and have openly acknowledged of possessing them: the United States of America, Russia, United Kingdom, and France, the People’s Republic of China, India, Pakistan, and North Korea.¹⁰⁶

Israel is strongly and generally believed to possess nuclear weapons, but it does maintain the principle of opacity, meaning, neither acknowledging nor denying the possession of nuclear weapons.¹⁰⁷ In the past, South Africa, manufactured nuclear weapons but as a result of the extinction of its apartheid government it disassembled its nuclear armaments, acceded to the NPT and accepted full-scope international safeguards.¹⁰⁸ According to the Federation of American Scientists report as of 2014, there are more than 16,000 nuclear warheads in the world with about 4,300 serviceable for operational use, that is, tested and ready for use.¹⁰⁹

Nuclear weapons delivery which means the technological systems deployed to convey nuclear weapons to their specific targets is a pivotal process crucial to enhance nuclear weapons fabrication, design, and strategy.¹¹⁰ Essentially, the development, protection,

¹⁰¹ Robert Jay Lifton and Greg Mitchell, *Hiroshima in America: Fifty Years of Denial* (Grossett/Putnam, New York, 1995) 5

¹⁰² Paul Ham, *Hiroshima Nagasaki: The Real Story of the Atomic Bombing and their Aftermath* (Transworld Publishers Ltd, 2014) 17

¹⁰³ Ibid

¹⁰⁴ Ibid

¹⁰⁵ UNDO – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament?WMD/Nuclear accessed 31 January 2015

¹⁰⁶ Types of Nuclear Weapons: CTBTO Preparatory Commission < www.ctbto.org/nuclear-testing/types-of-nuclear-weapons> accessed 31 January 2015

¹⁰⁷ Ibid

¹⁰⁸ Helen E Purkitt and Stephen F Burgess, *South Africa’s Weapons of Mass Destruction* (Indiana University Press, 2005) 119

¹⁰⁹ Federation of America Scientists: Status of World Nuclear Forces < <https://fas.org/issues/nuclear-weapons/status-world-nuclear-force>> accessed 02 February 201

¹¹⁰ Norman Polmar and Robert S. Norris, *The U.S. Nuclear Arsenal: A History of Weapons and Delivery System Since 1945* (Naval Institute Press, 2009)

and maintenance of delivery preference of nuclear weapons are integral aspects of nuclear weapons programmes.

The first delivery deployment of nuclear weapons which was used in the bombing of Hiroshima and Nagasaki in Japan during the World War II was the gravity bomb, released from bomber aircraft. This is normally the first delivery system the States that mastered the front end of nuclear weapons adopt; as it does not restrict the size and shape of the nuclear weapons. Although, it has the limitation of attacks and slow response to an imminent attack that requires immediate response.¹¹¹ With modern technological advancement and the advent of miniaturization, nuclear weapons can now be conveniently delivered through strategic bombers and tactical fighter bombers.¹¹²

More modern delivery methods of nuclear weapons from its strategic perspective are through ballistic trajectory of horizontal warhead mounted on missiles for faster and more successful delivery. These include the Intercontinental Ballistic Missiles (ICBMs) and the Submarine-launched Ballistic Missiles (SLBMs) which are long-ranged technological deployments. Beyond these ballistic launchers are the Multiple Independently Targetable Re-entry Vehicles (MIRVs) which are more advanced in technological delivery and can simultaneously launch multiple weapons at different targets from one missile, making the chances of missile defence almost impossible.¹¹³ The risks posed by the continuous existence of nuclear weapons including the dangers associated with their delivery system either by design, accidental detonation or miscalculation emphasise the risks of security of humanity. To prevent these risks, all States have the shared responsibility of nuclear disarmament.

1.6.2 Disarmament: Means and Meaning

Nuclear disarmament means the process of reducing, limiting and the total abolition of nuclear weapons to the state of a nuclear free world.¹¹⁴ Generally, disarmament refers to the complete elimination of Weapons of Mass Destruction (WMD) which include nuclear weapons, biological weapons and chemical weapons.¹¹⁵ The United Nations General Assembly (UNGA) Final Document of the First Special Session on Disarmament defined general and complete disarmament as “balanced reduction of armed forces and conventional armaments, based on the principle of undiminished security of the parties with a view of promoting or enhancing stability at a lower military level, taking into account the need of all States to protect their security.”¹¹⁶

¹¹¹ Norman Polmar and Robert S. Norris, *The U.S. Nuclear Arsenal: A History of Weapons and Delivery System Since 1945* (Naval Institute Press, 2009)

¹¹² Arjun Makhijani et al, *Nuclear Wastelands: A Global Guide to Nuclear Production and its Health and Environmental Effects* (MIT Press, 1st edn, 2000) 458

¹¹³ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2007) 7

¹¹⁴ Ibid

¹¹⁵ UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/Nuclear accessed 26 January 2015

¹¹⁶ The United Nations General Assembly (UNGA) Final Document of the First Special Session on Disarmament, A/S – 10/2 Resolution and Decisions.

Disarmament entails the process of arms control measures, most especially in the absence of extensive means of verification procedures.¹¹⁷ The concept of disarmament existed before the event of the First World War (WWI). At The Hague Peace Conferences of 1899 and 1907, participants and government delegates extensively debated about disarmament of weapons and the establishment of international court vested with the jurisdiction and the binding powers to adjudicate on disarmament matters.¹¹⁸ Such an international court was deemed necessary as it was clear no nation would willingly disarm its armaments. It was a general belief that the cause of war was increasing rearmament amongst the great powers in the previous half century before the WWI.¹¹⁹

Consequently, the 1919 Treaty of Versailles was able to effectively made Germany to disarm its conventional armoury with a clause that equally called on the great super-powers to gradually disarm their armament over a period of time.¹²⁰ Following this development, the League of Nations in Article VIII of its Covenant explicitly provided for the reduction of national armaments to the lowest point consist with national safety of all member states.¹²¹ In 1921, prior to its Covenant, the League of Nations set up the Temporary Mixed Commission on Armament. This commission explored the possibilities for disarmament with proposal ranging from the abolition of chemical warfare and strategic bombing of civilian populations to the limitation of more conventional weapons.¹²² The Geneva Disarmament Conference of 1932 - 37 which had Arthur Henderson former British Foreign Secretary as chairman was heralded by the 1926 Preparatory Commission for Disarmament Conference. The League of Nations attempted to make disarmament a possibility before the breaking of the Second World War (WWII).¹²³

An earliest successful achievement of disarmament was the Washington Navy Treaty (also known as the Five-Power Treaty) of 1922. This was a treaty ratified among the governments of British Empire, Empire of Japan, France Third Republic, the Kingdom of Italy, and the United States of America, to prevent the continued construction of capital ships and the limitation of ship of other classification under 10,000 tons displacement.¹²⁴ From the 1963 Partial Nuclear Test Ban Treaty to the 1996 Comprehensive Nuclear Test Ban Treaty, there have been various treaties either to reduce or to outrightly prohibit nuclear weapons testing and stockpiling.

¹¹⁷ Robert Muggah, "No Magic Bullet: A Critical Perspective on Disarmament, Demobilization and Reintegration (DDR) and Weapons Reduction in Post-Conflict Contexts" [2005] The commonwealth Journal of International Affairs, 94 (379), 239 - 252

¹¹⁸ Hague Convention /1899, 1907/ Encyclopaedia Britannica, www.britannica.com/EBchecked/topic/251644/Hague-Convention

¹¹⁹ Michael Ranner, "Budgeting for Disarmament: The Cost of War and Peace" [1994] World Watch Paper no. 122, World watch Institute Washing DC

¹²⁰ The Treaty of Versailles 1919, art 231

¹²¹ The Covenant of the League of Nations 1924, art VIII

¹²² The League and Disarmament: A Story of Failure < www.johndclare.net/league_of_nations4 > accessed 28 January, 2015

¹²³ The League and Disarmament: A Story of Failure < www.johndclare.net/league_of_nations4 > accessed 28 January, 2015

¹²⁴ The Washington Navy Treaty 1922, terms

Several efforts over the years to ensure the realisation of disarmament of destructive weapons and influence of war across the globe include the following instruments and conferences:

1. The Hague Conference 1899
2. World Disarmament 1932-34
3. Ten National Committee 1960
4. Eighteen Nations Disarmament Committee 1962-1968
5. Conference of the Committee on Disarmament
6. Present Conference on Disarmament 1979¹²⁵

Practical Steps towards Nuclear Disarmament

The 1968 Treaty of the Non-proliferation of Nuclear Weapons (NPT) explicitly expresses that all signatories should “pursue negotiations in good faith complete disarmament.” At the 2000 Non-Proliferation Treaty Review and Extension Conference (NPTREC), the States parties of the treaty agreed on “13 practical steps” to actualise their commitments towards nuclear disarmament.¹²⁶ These 13 practical steps are explained as follows:

1. **Entry into force of the Comprehensive Nuclear Ban Treaty CTBT** – State parties’ signatures and ratifications are crucially needed without delay and in accordance with stipulated conditions and processes to bring into effect the Comprehensive Nuclear Test-Ban Treaty (CTBT). The CTBT, which prohibits all nuclear weapons tests and explosion, was opened for signature in 1996. The CTBT requires at least 44 States with nuclear weapons and capabilities ratification to come into force. The United States and China have signed but not ratified the treaty. North Korea, India, and Pakistan are yet to sign. This treaty if come into force, is laudable legal framework and comprehensive approach to disarmament.
2. **Nuclear Testing Moratorium** - Agreement to a moratorium was made by State parties on nuclear weapon test explosions pending on the operational effect of the Comprehensive Nuclear-Ban Treaty (CTBT). All the Nuclear Weapons States have complied with this agreement since it was agreed upon in 2000. However, North Korea though withdrew its membership from the NPT in 2003 have conducted series of nuclear tests from 2006 to 2017 (time of writing this thesis). The Nuclear Testing Moratorium reinforces confidence on the possibility of nuclear disarmament in the forceable future
3. **Fissile Material Cut-off Treaty (FMCT)** – The conference on disarmament necessarily needs to meet and negotiate on non-discriminatory, multilateral and effectively verifiable FMCT within five years for the prohibition of the production

¹²⁵ Disarmament and Arms Control/LevelTypes of Disarmament/Process of Disarmament/ Barriers to Disarmament, <https://martinslibrary.blogspot.com/2014/08/disarmament-and-armscontrol.html> accessed 28 January 2015

¹²⁶ The Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-proliferation of Nuclear Weapons (NPT/CONF. 200/28 part I and II)

of fissile materials for nuclear weapons or other nuclear explosive devices. The FMCT would include the banning of Highly Enriched Uranium and plutonium for nuclear weapons purposes. Banning these materials is a right target approach to end the possibility of producing more nuclear weapons.

4. **Conference on Disarmament (CD)** – The conference on Disarmament will have the mandate to establish a sub-group to deal with nuclear disarmament programmes and processes. As a result of the mandate of the CD, the UNGA on 7 July 2017 have adopted Resolution 71/257 to negotiate a legally binding treaty to prohibit nuclear weapons. This treaty if eventual come into force would satisfy Article VI of the NPT of negotiating in good faith to complete disarmament.
5. **Irreversibility of Nuclear Reductions** – The State parties of the NPT, unanimously and strongly agreed not to reverse nuclear disarmament, and other arms control and reduction measures undertaking. Many States would have preferred the principle of flexibility to irreversibility but as a multilateral agreement, they are obliged to abide by the principle of irreversibility as a commitment to disarmament obligation.
6. **Elimination of Nuclear Arsenals** – The NWS unequivocally undertaken the obligation under the Article VI of the NPT to totally eliminate their nuclear arsenals, leading to nuclear disarmament. However, there are no verifiable means to determine whether the NWS are complying with this obligation. It is expected that the NWS should demonstrate their commitments to disarmament by eliminating their nuclear arsenals as justification for othe States with nuclear capabilities to follow.
7. **Implementation of START II, START III and Anti-ballistic Missile Treaty** – The State parties of the NPT should bring the Strategic Arms Reduction Treaty (START II) into force and fully implement it within the shortest possible time. Consequently, they are also to begin the Strategic Arms Reduction Treaty (START III) as well as to preserve and strengthen the existing Treaty on Anti-Ballistic Missile Systems.
8. **Implementation of the Trilateral Initiative (Declaring Excessive Military Fissile Material)** – The United States of America, the Russian Federation and the International Atomic Energy Agency (IAEA) agree to complete and implement their Trilateral Initiative. This trilateral initiative started in 1996 and it seeks to develop methods and measure for the IAEA to secure and verify the peaceful status of excess weapons-grade nuclear materials in the United States and Russia.
9. **International Stability** – All the NWS and NNWS will promptly begin the processes towards nuclear disarmament in a manner that promote international stability. This include reducing their nuclear arsenals, absolute transparency about their nuclear weapons capabilities, material devices and their delivery vehicles, unilateral initiative to reduce non-strategic nuclear weapons; measure to further reduce existing nuclear weapons systems' operational status; reduction of nuclear weapons' role in security policies and engaging appropriately in the process leading to complete disarmament. The international

stability is viewed as a further determined efforts by the NWS to reduce their nuclear armaments unconditionally and unilaterally as part of disarmament process.

10. **Peaceful Purposes** - The NWS have all arranged and agreed to place excess fissile military materials under the IAEA and other international verification and subsequently arrange such materials for peaceful purposes. This is also to ensure that such fissile material remains permanently outside military use and programmes.
11. **General and Complete Disarmament** – The NPT State parties reaffirmed their desire towards the goal of general and complete disarmament for all States under effective international control. Although, progress in nuclear disarmament has been slow, but there are concerted multilateral efforts to general and complete nuclear disarmament in the foreseeable future.
12. **Reporting** – All states parties of the NPT (the NWS and the NNWS) will regularly report on their implementation within the provision of Article VI obligations and the entire framework of the NPT. Regular reports on the progress and shortcomings associated the disarmament framework strengthened the review process.
13. **Compliance** – All the State parties of the NPT will develop verification capabilities to assure compliance with nuclear disarmament agreements, to achieve and maintain a nuclear-weapon-free world.¹²⁷ Compliance and verification are crucial dimensions of disarmament and international arms control strategies.

Various Forms of Disarmament

There are existing five various forms or types of disarmament in determining to what degree or levels which disarmament is required in ensuring arms control measures. These forms of disarmament are as follows:

1. **Unilateral Disarmament** – Unilateral approach to disarmament implies that nuclear arms cause existing tension and their absence will virtually lead to the absence of nuclear crisis. Many NNWS States have practiced unilateral disarmament. Notably amongst countries that uphold unilateral disarmament principles include Switzerland, Sweden, Germany The Netherlands, and South Africa. These countries and many others which do not keep nuclear weapons and spend money on nuclear armaments demonstrate that every State can exist without relying on nuclear weapons for their national security.
2. **Categorical Disarmament** – Categorical disarmament means the elimination of certain categories of weapons such as biological, chemical, and nuclear weapons. The 1925 Geneva Convention was an earlier legal instrument that banned the use of gas and biological weapons. However, the emergence of the Treaty Prohibiting Nuclear Weapon (TPNW) is an that categorical centres on nuclear disarmament.

¹²⁷ The Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-proliferation of Nuclear Weapons (NPT/CONF. 200/28 part I and II)

3. **Negotiated Disarmament** – Negotiated disarmament is a bilateral or multilateral agreements that exist between two or more States on the terms and conditions needed for disarmament. All the arms control instruments and the various nuclear weapons treaties are forms of negotiated disarmament. The Concept of negotiated disarmament is deemed to be binding and mutual than unilateral disarmament that is considered one-sided and very flexible to be abandoned.
4. **Arms Reduction** – Arms reductions is a form of disarmament as it is aimed at reducing the number and types of existing weapons considered catastrophic to man and the environment. The various types of agreements between the United States and the defunct Soviet Union on strategic negotiations on the reductions and control of their armaments are examples of arms reduction as a form of disarmament.
5. **Geographical Reduction** – Geographical reduction as a form of disarmament is a focus on particular geographic locations or areas as nuclear free zones. The aim is to minimise nuclear tensions in such locations. During the Cold War era, the Soviet Union made proposals to de-nuclearise the entire Europe, Africa, Middle East and parts of Asia.¹²⁸

From inception, the United Nations aims of multilateral disarmament and arms control are central to the maintenance of international peace and security. These aims range from reduction to eventual elimination of all nuclear weapons, destruction of chemical weapons, the strengthening of the prohibition of biological weapons, and the halting of the proliferation of landmines, small arms and light weapons. The United Nations strongly supports the various regional nuclear weapons ban treaties in Antarctica, Latin America and the Caribbean, the South Pacific, South-East Asia, Africa and Central Asia.¹²⁹

1.6.3 International Law: Its Relationship to Internal Law

International law is traditionally characterised by a system of rules, principles, and norms that regulate the international affairs, diplomatic relations and other contractual engagements between sovereign states as well as other international recognised organs such as the United Nations (UN), European Union (EU), Arab League (AL), and the African Union (AU). Primarily, the norms of international law are enacted by states both for their own purposes as individual sovereign entities and as a means of facilitating and regulating the activities of other international actors on the international plane.¹³⁰

The rules of international law virtually cover every aspect and facets of national and international activities. These range from the laws governing the use of the sea, outer

¹²⁸ Disarmament and Arms Control/Level/Types of Disarmament/Process of Disarmament/Barriers to Disarmament, <https://martinslibrary.blogspot.com/2014/08/disarmament-and-armscontrol.html> accessed 28 January 2015

¹²⁹ United Nations Global Issues/Disarmament <http://www.un.org/en/globalissues/disarmament> accessed 2 February 2015

¹³⁰ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

space, and Antarctica; to the laws regulating international telecommunications, postal services, carriage of goods and passengers by air as well as international money transfer. Indubitably, international law is the bedrock and the legal yardstick to measure the conduct of international trade. International law also spread across human rights, dignity of the individual, nationality, extradition, the use of armed forces, protection of the environment and the security of nations. Obviously, there is little or nothing conducted on the international sphere that is not controlled by international law.¹³¹

In view of academic purposes, the phrase *International Law* implies two distinctive legal sub-divisions namely: public international law also known as international public law; which regulates relationship between sovereign states and other international entities in terms of international treaties, international criminal law, law of the sea, international human rights law, and law of war or international humanitarian law. And private international law (commonly known as “conflict of law” in civil law jurisdiction); is concern with conflicts between private individuals and addresses the questions of which jurisdiction has the permission to hear a legal dispute between private individuals and which jurisdiction’s law should be applicable and takes precedence, thereby making international law complex.¹³²

Whatever benefits or burdens international law bestowed or compelled on nation states or individuals were regarded as merely derivative from *jus gentium* – law of sovereign states and *jus inter gentes* – agreements between sovereign states.¹³³ Essentially, international law has: international treaties, international custom, and the general principles of the law, judicial decisions and writing of publicists as its five distinct sources as enshrined in Article 38 of the International Court of Justice.¹³⁴

International law is the sole mechanism that makes the interdependent world functions effectively. Though it does not have a coercive procedure of the law as it is primarily controls the conduct of legal equals. Overtime, international law has developed institutional mechanisms analogous to the ones existing in sovereign States. These include the International court of Justice, International Criminal Court, European Court of Human Rights, the Tribunal for War Crimes of Bosnia, Rwanda and Somalia genocides.¹³⁵

Modern international law controls states not only in regulating their conducts with other states such as the law prohibiting the use of armed forces to settle dispute but also in inhibiting their relations with their national and international individuals such as issues concerning human rights and the excise of criminal jurisdiction for the case of international individuals.¹³⁶ However, in the case *Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide* (Bosnia and

¹³¹ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹³² Peter Malanczuk, *Akehurst’s Modern Introduction to International Law* (Routledge Taylor & Francis Group, 7th edn, 2002) 71

¹³³ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007)

¹³⁴ Status of the International Court of Justice (ICJ), June 26, 1945, art, 38

¹³⁵ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹³⁶ Ibid

Herzegovina v Serbia & Montenegro),¹³⁷ Serbia was not able to deny the existence of international law concerning genocide but argued that it was not responsible for the violations of international law that happened.

The evolution of international law from the primary concern of sovereign states as its subjects to the engagement of international cooperation of all actors is pre-eminently and intrinsically bound up with diplomacy, politics and the conduct of all international affairs. It is fallacious to consider international law as the sole facilitator of State conduct. International law does not strive on infertile field and international legal rules are determining factors for every state or government to consider before embarking on any line of action. The most fundamental fact and a very cogent argument for the existence of international law as a system of law is that the entire international community recognise that there is the existence of rules normatively and effectively binding upon them as law.¹³⁸

The international community and sovereign states strongly believe that international law exist when Tanzania invaded Uganda between 1978 and 1979 and when Iraq invaded Kuwait in 1990. Many States considered these invasions as not only immoral or merely unacceptable but unlawful. In the same vein, the United States led invasion of Iraq in March 2003 and the unlawful and forceful intervention of Israel in Lebanon in July 2006 were both condemned as violation of international law by the international community.¹³⁹

Similarly, the criticism that followed the war crimes committed in Bosnia and the Rwanda genocides and the various impositions of sanctions by the United Nations Security Council on delinquent states underscores the intensity of international law.¹⁴⁰ International actors who potentially engage in unlawful and unethical actions or inactions do not deny international law thematically but affirm it un-thematically. For example, when Iraq invaded Kuwait it argued that international law justified its action stressing that the law prohibiting armed forces was not consequential and not applicable in such invasion.¹⁴¹

International law is practiced on day-to-day basis in the foreign affairs ministries and offices, national courts, international courts and governmental organs of States, and in international organisations such as the United Nations. All foreign affairs ministries or offices have legal departments saddled with the responsibility on issues bordering on international law and the drafting of international agreements amongst others.¹⁴² National courts are consistently concerned with substantive international norms and regulations. This was evident in the series of *Pinochet* cases, *R v Bow Street Metropolitan Stipendiary Magistrate, ex parte Pinochet*¹⁴³ in the United Kingdom

¹³⁷ Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (*Bosnia and Herzegovina v Serbia & Montenegro*) [2007] ICJ

¹³⁸ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹³⁹ Ibid

¹⁴⁰ John Quigley, *The Genocide Convention: An International Law Analysis* (Routledge Taylor & Francis group, 2006) 86

¹⁴¹ Ibid

¹⁴² Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹⁴³ *R v Bow Street Metropolitan Stipendiary Magistrate, Ex Parte Pinochet* [1999] 2 All ER 97

concerning the issues of immunity and human rights and in the House of Lord Judgement in the case of *R v Jones*¹⁴⁴ concerning the interpretation of the meaning of international crime of aggression on national law.

These cases underscore the legal validity of international law. However, international organisations in terms of inter-governmental and non-governmental responsibilities employ the services of lawyers and use the language of the law to conduct their daily affairs. These organisational entities and their affiliates accept that they are legally obliged to conduct their affairs in conformity with the standard of prescriptive norm codified as international law.

. The landmark establishment and the successful operation of the International Criminal Court responsible for the prosecutions of dictators and tyrants who violated fundamental international human rights; the protection of civilian populations during the 2011 Libyan political upheaval are commendable. The continuous humanitarian responses to Syrian refugees¹⁴⁵ and the global impact of the International Court of Justice in regulating Sovereign States against the monopoly a__nd the use of World's ocean and their natural resource as well as the 1996 Advisory Opinion of the International Court of Justice on the Legality of the use of Threat or Otherwise of Nuclear Weapons are amongst the incontrovertible success story of international law.¹⁴⁵

In either case, international law has been derided by some legal scholars and commentators on account of the failure of the United Nations and the international community to savage the Bosnia, Somalia, Sudan, Rwanda and the Syrian civil wars that resulted in massive casualties of defenceless civilians. Criticism still exists against international law on the genocide activities of Pol Pot of Cambodia, between the periods of 1975 – 1979 whereby about 1.7 million people were massacred. The episode of the denial of procedural and substantive rights of those detained in Guantanamo Bay by the United States under President George Bush regime which constituted a gross violation of international law of human rights without any corresponding response from the international community is still a fertility of criticism of international law.¹⁴⁶

By and the large, the role of international law is circumscribed to two major functions namely: the technical rules of engagement or conduct; and the keeping of the breach to a minimum. This is factual as many of the rules of belligerency (warfare) exist in un-codified form, while others are codified in international conventions, specifically in The Hague and Geneva Conventions. The acceptance of the existence of international law resonates in international co-operation, co-existence and conflicts around the globe. States have common interests and mutually interdependent in diverse ways and international law facilitates this mutuality.¹⁴⁷

States co-exist in the form of consensual and contextual agreements in treaties and other reciprocal engagements. In conflicts, international law has the unmitigated role

¹⁴⁴ *R v Jones* [2006] 2 WLR 772

¹⁴⁵ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹⁴⁶ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

¹⁴⁷ Ibid

in enforcing the system of remedies available to a state aggrieved by a violation of legal obligations by another State. This role was consolidated by the Articles on Responsibility of States for Internationally Wrongful Acts adopted by the International Law Commission (ILC) in August 2001 and acceded by the United Nations Security Council (UNSC) in December 2001.¹⁴⁸

1.6.4 Multilateralism: The Attitude and Magnitude of International Response

Internationally, sovereign states are increasingly and imperatively using the results of *majoritarian* voting procedures in international cooperation on foreign policies and global discourse and the concept of multilateralism stand as a means and serve as a plausible yardstick of measurement. Multilateralism in the vein of international relations is the collective response of multiple countries to international problems¹⁴⁹ (such as the existence of nuclear weapons and their proliferation) either through policy by choice or by necessity. States can choose from a wide range of organising form on which to base their interactions and multilateralism is an absolute means of such states interactions.¹⁵⁰

As defined by Miles Kahler of the United States after 1945, “Multilateralism is international governance of the many”, with the core principle of “opposition to bilateral and discriminatory arrangements that were believed to enhance the leverage of the powerful over the weak and to increase international conflict”.¹⁵¹ However, J.G. Ruggie in his work “Multilateralism: the Anatomy of an Institution”, explains that Institution of Multilateralism (IM) has three principles namely: indivisibility, non-discrimination or general organising principles, and diffuse reciprocity. Indivisibility is demonstrated by collective security strategies whereby an attack on one state means an attack on all states. Non-discrimination which implies the general organising principles indicate that all states should be treated equally in all aspects and facets of international co-existence and co-operations. Essentially, diffuse reciprocity means that states do not solely rely on quid-pro-quo exchanges, but on longer-term balance assurances international agreements.¹⁵²

The utility of multilateralism was consolidated after the World War II, as there was a progressive shift away from bilateral regime and hegemony in which cooperation among states were compartmentalised.¹⁵³ Under sovereign equality of states, smaller

¹⁴⁸ Alina Kaczorowska, *Public International Law* (Routledge, Taylor & Francis group, 3rd edn, 2005,) 9 & 11

¹⁴⁹ United Nations University, *Multilateralism 2.0: The Transformation of International Relations*
<http://unu.edu/publications/articles/multilateralism-2-0-the-transformation-of-international-relations>
accessed 5 February 2015

¹⁵⁰ Lisa L. Martin, ‘Interests, Power, and Multilateralism’, [1992] *International Organisation Foundation*, MIT Press 46 (4), 765 - 792

¹⁵¹ Miles Kahler, ‘Multilateralism with Small and Large Numbers’, [1992] *International Organisation Foundation*, MIT Press 46 (3) 681 - 708

¹⁵² John Gerard Ruggie, ‘Multilateralism: The Anatomy of an Institution’, [1992] *International Organisation Foundation*, MIT Press 43 (3) 561 – 598

¹⁵³ Lisa L. Martin and Beth A. Simmons, *International Institutions: An International Organisation Reader* (MIT Press, 2001) 40

and weaker states were believed to be disadvantaged by bilateralism.¹⁵⁴ Multilateralism requires that all states sacrifice substantial levels of flexibility in decision making and resist the short-term temptation in favour of long term benefits. This implies that multilateral regime is characterised by equal treatment and universal participation. This further means that regardless of differences in territorial size, population size, military capabilities, or economic powers, all states have the same legal recognition.¹⁵⁵

Multilateral organisations and activities such as the United Nations (UN), the International Monetary Fund (IMF), the World Trade Organisation (WTO), and the General Agreement on Tariffs and Trade (GATT), International Atomic Energy Agency (IAEA) and Conference on Disarmament (CD) have occupied the global space and have been extensively employed as theoretical categories that provide the central conceptual focus, and international co-existence and cooperation.¹⁵⁶ Multilateralism presupposes cooperation. Not all cooperation is multilateral, but all multilateral activities include cooperation.¹⁵⁷ This include all global and concerted efforts on nuclear disarmament in terms of international conferences and forums on the Humanitarian Impact of Nuclear Weapons.

International institutions embodying multilateralism and mode of universal acceptable governance have generated realistic and universalistic criticisms. On the one hand, the realists argue that multilateralism will woefully fail as a result of great powers wish to exploit their advantages and pursue their national interest in bilateral bargaining, oppose to the general acceptance of other states.

Obviously, the equality character of multilateralism does not support the hierarchical power of configuration of the international system and greater powers that choose to engage in collaborative ventures do so in institutions that risk domination by the many.¹⁵⁸ A good example is the United Nations Security Council (UNSC) having the five officially recognised NWS as five Permanent member with a special privileged status of veto power.

On the other hand, the neo-liberals tackle the universalists character of multilateral principles and its preferences for global rather than regional or other more limited organisations. Unarguably, the membership of most international multilateral organisations, that was less than fifty percent after World Word II, had asymmetrically grown to be over hundred by 1990. To this end, the neo-liberal sceptical criticism about multilateralism is on emphasising on the problem of cooperation in group with large membership. In the same vein, the formal and conventional agreement on which most multilateral institutions are established also heighten the obstacles to cooperation in

¹⁵⁴ Daniel Verdier, 'Multilateralism, Bilateralism, and Exclusion in the Nuclear Proliferation Regime' [2008] International Organisation Foundation, Cambridge University Press 62(3) 439 - 476

¹⁵⁵ Ibid

¹⁵⁶ Pavel Hnat 'Globalization, Multilateralism, Regionalism: From Dilemma to Multi-dimensionality' [2008] Acta Oeconomica Pragensia 16(1)

¹⁵⁷ Miles Kahler, 'Multilateralism with Small and Large Numbers', [1992] International Organisation Foundation, MIT Press 46 (3) 681 -708

¹⁵⁸ Miles Kahler, 'Multilateralism with Small and Large Numbers', [1992] International Organisation Foundation, MIT Press 46 (3) 681 -708

comparison with the customary accretions that provide a decentralised source for much of international law.¹⁵⁹

Nonetheless, each of the aforementioned criticism addresses its own anomalies associated with multilateralism. The realist scepticism must accept the fact that the United States of America, the most powerful country of the post-war era, was the most consistent promoter and conscientious supporter of multilateral norms and procedures. Most powerful nations in various key issues have jettisoned free riding on mini-lateral bargains by their weaker counterparts.¹⁶⁰

Multilateralism was also circumscribed by a huge number of continuous derogation from its injunctions: its rivals, discriminatory and bilateral forms of organisations, were far from vanquished in the decades following World War II. The North Atlantic Treaty Organisation (NATO) which is exceptional in security relations within the multilateral paradigm as a collective security mechanism of the United Nations (UN) has provided the essential framework for a multilateral order.¹⁶¹

For the purposes of actualising the principles governing disarmament, the United Nations Disarmament Commission (UNDC), a subsidiary organ of the General Assembly, comprised of all the Member States of the United Nations make recommendations in all aspect and facets of disarmament and essentially, following up on the various decisions and recommendations on the Special Session of the General Assembly. Since its inception, the United Nations Disarmament Commission (UNDC) formulates consensus principles and guidelines on nuclear disarmament and is substantively serviced by the United Nations Office for Disarmament Affairs (UNODA) under the auspices of the United Nations General Assembly (UNGA) in collaborations with the United Nations Institute for Disarmament Affairs (UNIDIR).¹⁶²

As a result of multilateralism and nuclear disarmament, the United Nations General Assembly established a resolution known as A/RES/67/56 – an open-ended Working Group, to develop proposal to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons.¹⁶³ This Working Group met between March and August 2013 with the active participation and unassailable contributions of international organisations and the Civil Society. The group submitted the report on its work to the General Assembly at its sixty-eight session, (A/RES/ 68/46) on December 5 2013, which was in turn transmitted to the Conference on Disarmament and the Disarmament Commission of the United Nations.¹⁶⁴

Prior to this multilateral nuclear disarmament negotiation, the herculean efforts to negotiate a resolution to the second North Korean nuclear crisis in August 2003 have

¹⁵⁹ Ibid

¹⁶⁰ Ibid

¹⁶¹ Bruce Jones, 'Making Multilateral Work: How the G-20 Can Help the United Nations' [2010] Policy Analysis Brief

¹⁶² United Nations Office for Disarmament Affairs (UNODA) – www.un.org/disarmament/Homepage accessed, 12 August 2015

¹⁶³ The United Nations General Assembly Resolution on Multilateral Nuclear Disarmament (A/REC/67/56)

¹⁶⁴ Ibid (A/REC/68/46)

hitherto stretched the limits of the six principal players: North Korean, South Korean, the United States, China, Japan and Russia. In spite of the extensive diplomatic efforts to aid and host the six-party negotiations, domestic policy constraints, divergent views and conflicting historical analogies of the each of the nations have adversely affected the multilateral negotiation.¹⁶⁵

The recommendations of the Working Group report of the United Nations General Assembly resolution A/RES/67/56 is a prerequisite to realising a comprehensive multilateral resolution on nuclear disarmament.¹⁶⁶ Following the collaboration cases, cooperation is threatened rather than enhanced by a longer shadow of the future of nuclear disarmament. The International Atomic Energy Agency (IAEA) has played an unbiased and dominant role on multilateralism on nuclear disarmament.¹⁶⁷

Thus, multilateralism in general and multilateral institutions in particular provide a more democratic means of determining which global issues should be addressed and how states should address them. Multilateralism is the most egalitarian form of international cooperation and decision-making and multilateral institutions remain the very few forums whereby NNWS can potentially project their voices and they will be heard.¹⁶⁸ In a globalised networked and interdependent world, multilateralism would continue to be the key pillar of international co-existence in matter such as nuclear disarmament.

Existential global realities like international peace and security, human rights, economic development and international trade, protection of the environment and sustainable development as well as functional and technical co-operation require joint effort to bring down costs and to bring order and regularity to international relations. These areas cannot be adequately addressed unilaterally or bilaterally, they need the optimum effectiveness of multilateralism. The rationale behind this truism is that all states alongside with some non-states actors face mutual vulnerability and intensifying interdependence and as such require global support for public good. The international system is hung on a network of treaties, regimes, and international organisations. Obviously, the NWS can neither unilaterally achieve nor attain prosperity and security effectively in isolation.¹⁶⁹ Hence, the continuous global efforts and multilateral negotiations on nuclear weapons disarmament is a commendable necessity. The emergence of the Treaty on the Prohibition of Nuclear Weapons (TPNW) and the various NPT Review conferences as well as the regional and global conferences on nuclear disarmament are realisable through the concept of multilateralism.

1.6.5 International Treaties: Intent and Potency

The negotiations and process of nuclear disarmament is regulated by international treaties. The term “treaty” is a generic expression to denote various international

¹⁶⁵ The United Nations General Assembly Resolution on Multilateral Nuclear Disarmament (A/REC/67/56)

¹⁶⁶ Ibid

¹⁶⁷ The United Nations General Assembly Resolution on Multilateral Nuclear Disarmament (A/REC/67/56)

¹⁶⁸ Lindsey Powell, ‘In Defence of Multilateralism’, [2003] Yale Centre for Environmental Law and Policy, New Haven, CT, 23 – 25 October

¹⁶⁹ Ramesh Thakur, ‘The United Nations in Global Governance: Rebalancing Organised Multilateralism for Current and Future Challenges’ http://www.un.org/GobalGovernance/Thakur_GA_Thematic_Debate accessed on 9 February 2015

agreements and contractual engagements between states. These international agreements are variously referred to as conventions, pacts, declarations, charters, concordats, protocols and covenants. International treaties may be quasi-legislative or solely contractual. In other words, international treaties may specify rules binding them upon states and explore fresh areas into which international law is developing. International treaties are mostly codify, clarify, or supplement the already existing customary international law.¹⁷⁰ The Vienna Convention on the Law of Treaties (VCLT) in Article 2 (2) defines a treaty thus:

“[a]n international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whether its particular designation”.¹⁷¹

In the view of the International Law Commission (ILC), a treaty can be described in a multitude of ways thus:

*In addition to a ‘treaty’, ‘convention’, and ‘protocol’, one not infrequently finds titles such as: ‘declaration’, ‘charter’, ‘covenant’, ‘pact’, ‘act’, ‘status’ ‘agreement’, ‘concordat’, whilst names like ‘declaration’, ‘agreement’, and ‘modus vivendi’ may well be found given both to formal and less formal types of agreements. As to the letter, their nomenclature is almost illimitable, even if some names such as ‘agreement’, ‘exchange of notes’, ‘exchange of letters’, ‘memorandum of agreement’ or ‘agreed minute’ may be more common than others ... there is no exclusive or systematic use of nomenclature for particular types of transaction.*¹⁷²

The 1969 Vienna Convention of the Law of Treaties (VCLT) does not specify or prescribe that a treaty should be in a particular format or possess some specific elements. However, if there is a dispute arising from the status of document as a treaty, for example, a joint communiqué, an objective test is employed to determine the question, taking into full consideration its actual terms and the specific circumstances in which such document was made.¹⁷³

Treaties concerning nuclear weapons include the just concluded July 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW), the 1969 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the five existing Nuclear Weapons Free Zones Treaties (NWFZs), and the 1996 Comprehensive Nuclear Test Ban Treaty (CTBT) which has not come into force. Treaties on nuclear weapons also all hitherto bilateral agreements between the United States and the defunct USSR and tri-lateral agreement between the United States, United Kingdom and the defunct USSR relating to nuclear weapons.

A minute of a meeting can assume the status of a treaty. In view of this possibility, the International Court of Justice (ICJ) ruled and explained in the case of *Qatar v Bahrain* (also known as Doha Minute) that:

The Court does not find it necessary to consider what might have been the intention of the Foreign Minister of Bahrain or, for that matter those of the Foreign Minister of Qatar. The two ministers signed a text recording commitment accepted by their Governments, some of which were to be given an immediate application. Having signed such a text, the Foreign Minister of

¹⁷⁰ Alina Kaczorowska, *Public International Law* (Routledge, Taylor & Francis group, 3rd edn, 2005)

¹⁷¹ The Vienna Convention of the Law of Treaties (VCLT), 1969, art 2(2)

¹⁷² Year Book of the International Law Commission (YBILC) 1966, vol II (part II) p 188

¹⁷³ Malcolm D. Evans, *International Law* (Oxford University Press, 1st edn, 2003) 174

Bahrain, is not in the position subsequently to say that he intended to subscribe only to a 'statement recording political understanding' and not to an international agreement.¹⁷⁴

Following the aforementioned ICJ ruling and since a treaty is a medium of creating a legally binding agreement; it presupposes that there must be the intention to create a legal rapport between States parties concern. Consequently, the Rapporteur of the International Law Commission (ILC) states that the element that comprises a treaty is explicitly express in the phrase 'governed by international law'.¹⁷⁵ There are some international acts which were never intended to have enforceable legal obligations that assume the form of international treaties. The 1975 Final Act of the Conference on Security and Cooperation in Europe which was not eligible for registration under Article 102 of the United Nations Charter and was generally regarded not to have binding effect.¹⁷⁶ Similarly, in the Nuclear Test case of *Australia v France*, the International Court of Justice (ICJ) made it categorically clear that:

The unilateral statements of States can have binding force if the intention that they be legally binding is clear; and there is clear evidence regarding the circumstances in which they are made; and the question is approached with due caution.¹⁷⁷

Also, there are some other documents registered under Article 102 of the United Nations Charter, as treaties whereas they have neither binding force nor have the status of a treaty. These include: the 1957 Declaration by Egypt Concerning the Nationalization of the Suez Canal, the 1972 Stockholm Declaration on Human Environment, the 1992 Rio Declaration on Environment and Development, the 1988 Baltic Sea Ministerial Declaration and the 1992 Baltic Sea Declaration which later snowballed into the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea and the Baltic Area (The Helsinki Convention - HELCOM).¹⁷⁸

Similar to the above, the various Non-Proliferation Treaty Review and Extension Conferences (NPTREC) final documents such as "a-13 practical steps towards disarmament" document of 2000, the 2010 document on "catastrophic humanitarian consequences that would result from the use of nuclear weapons", the Preparatory Committee (Pre/Comm) of the 2015 Non-Proliferation Treaty Review Conference (NPTRC) can assume the form of treaties.

The central and the essential characteristics of a treaty as a source of law is that it is operational and it is binding on all consensual parties.¹⁷⁹ There may be real circumstances whereby a treaty might create rights or duties for third parties in conformity with Articles 34 – 37 of the 1969 Vienna Convention on the Law of Treaties.¹⁸⁰ There is a dichotomous difference between treaty as law-making and treaty as contract. Law-making treaties deal with wide range of activities as a result of

¹⁷⁴ *Maritime Delimitation and Territorial Questions between Qatar and Bahrain Jurisdiction and Admissibility Judgement*, [1994] ICJ Reports p 112, para 27

¹⁷⁵ Forth Report on the Law of Treaties, Year Book of the International Law Commission (YBILC) 1965, vol II, p 12

¹⁷⁶ Malcolm D. Evans, *International Law* (Oxford University Press, 1st edn, 2003) 175

¹⁷⁷ *Australia v France Nuclear Test Judgement* [1974] ICJ Reports p253, para 42 - 43

¹⁷⁸ Ibid

¹⁷⁹ Alina Kaczorowska, *Public International Law* (Routledge, Taylor & Francis group, 3rd edn, 2005) 15

¹⁸⁰ The Vienna Convention on the Law of Treaties (VCLT), 1969 arts 34 -37

inadequacy in customary international law in meeting the demand of States for rules regulating inter-states relations.¹⁸¹

Examples of law-making treaties are the 1884 Convention for the Protection of Submarine Telegraph Cables, the International Convention for the Suppression of White Slave Traffic and the Geneva Conventions which is comprised of four treaties and three additional protocols that established the standard of international law for the humanitarian treatment of war. Areas that urgently need law-making treaties in international law include the control of narcotic, pacific settlement of international dispute, nationality and statelessness, climate change, world trade organisation, international terrorism and international corruption.¹⁸²

A more recent and a more relevant example of law-making treaty is the Treaty on the Prohibition of Nuclear weapons (TPNW) adopted on 7 July 2017 by the United Nations General Assembly (UNGA) by resolution 71/258.¹⁸³ The treaty will enter into force 90 days after the fiftieth instrument of ratification, acceptance, approval or accession has been deposited. The treaty will be reviewed on a conference following its entry into force after five years. Its subsequent review conferences will be convened every six years.¹⁸⁴

Unlike the law-making treaties, contract treaties are usually made to govern a narrow area of activities between States, such as trade agreements. Contract treaties, may lead to the enactment of widely recognised international law through the practice of the principles regulating the development of customary rules in any or all of these tripartite ways: a series of treaties laying down a similar rule that may produce a principle of effective customary international law; acceptance or limitation of general rule contain in a treaty originally concluded between a limited number of State parties; and the possession of evidential value of a treaty to the existence of a rule which may had crystallised into law by an independent process of development.¹⁸⁵

The five existing Nuclear Weapons Free Zones Treaties are example of contract treaties as they are regional approach and made between states of respective regions to strengthen the global nuclear non-proliferation and disarmament norms and consolidate multilateral efforts towards peace and security.

Provisionally, treaties may generate autonomous rules of law besides the customary State Practice. This is exemplified in Article 2(4) of the United Nations Charter which prohibits the threat of or the use of force in international relations.¹⁸⁶

¹⁸¹ Ibid, art 190

¹⁸² The Vienna Convention on the Law of Treaties (VCLT), 1969, art 194

¹⁸³ United Nations General Assembly (UNGA) Resolution A/RE S/71/258, adopted on 23 December 2016. Text of the Treaty on the Prohibition of Nuclear Weapons, adopted on 7 July 2017 and draft treaty on the prohibition of nuclear weapons, adopted on 6 July 2017

¹⁸⁴ Nuclear Threat Initiative (NTI) www.nti.org/learn/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons accessed 19 August 2017

¹⁸⁵ Nuclear Threat Initiative (NTI) www.nti.org/learn/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons accessed 19 August 2017

¹⁸⁶ The United Nations Charter, 1945, art II (4)

Treaties are usually written instruments concluded between States and the applied terms are in most case unwritten agreement between the States and international organisations under general international law.¹⁸⁷ A good example is the 1946 Convention on the Privileges and Immunities of the United Nations and between International Organisations. As it pertains to arms controls and nuclear weapons non-proliferations, the Treaty on the Limitation of Anti-Ballistic Missile System (ABM Treaty) of 1972 which was amended in 1973 is an example of treaty of applied terms. The treaty which was between the United States and the former Soviet Union provides that each State could have only one very restricted ABM deployment area, thereby precluding either state from developing a nationwide ABM defence. Logically, since each State would have the capability to retaliate against the other State, it necessarily implies that it would be unlikely that both States would resort to nuclear first strike.¹⁸⁸

In this convention, the agreement involved the State signatories that made up of the United Nations and non-State actors. While the convention possesses the characteristics of treaties with its subjection to the rule of interpretation, it was frequently described by many as a general concession.¹⁸⁹ Another example is the 1947 UN Headquarters Agreement between the United Nations and the United States.¹⁹⁰ Many international treaties most especially the multilateral ones are made to create general rules of common application with elements of legislative features.¹⁹¹ This is seen in Article 55 of the 1982 Convention on the Law of the Sea which made provision for the recognition of the Exclusive Economic Zone (EEZ).¹⁹² In a similar way, the Treaty on the Non-proliferation of Nuclear Weapons (NPT) made provision for its review every five years in Article VIII (3), apparently, purporting to codify existing customary law in it.¹⁹³

1.7 Conclusion and the Structure of Thesis

This thesis, which is centred on nuclear weapons disarmament in international law, as a research, also examines their historical and political contexts.¹⁹⁴ It is factual, that nuclear weapons disarmament must be a collective pursuit to be largely successful.¹⁹⁵ Based on this ground of de-legitimising nuclear weapons, Squassoni, expresses that: “the vision of a world without nuclear weapons has taken shape outside of governments, but is increasingly creeping inside governments.”¹⁹⁶ It is therefore,

¹⁸⁷ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 56

¹⁸⁸ Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile System (ABM Treaty), 26 May 1972

¹⁸⁹ Convention on the Privileges and Immunities of the United Nations, adopted by the General Assembly of the United Nations on February 13, 1946

¹⁹⁰ Agreement between the United Nations and the United States regarding the Headquarters of the United Nations, signed in June 26 1947 and approved by the General in October 31 1947

¹⁹¹ Alina Kaczorowska, *Public International Law* (Routledge, Taylor & Francis group, 3rd edn, 2005) 15

¹⁹² Convention on the Law of the Sea, 1982, art 55

¹⁹³ Treaty on the Non-proliferation of Nuclear Weapons (NPT), 1969 art VIII (3)

¹⁹⁴ Christine Gray, ‘Nuclear Weapons and Contemporary International Law’ [1990] ICLQ 39(1), 235 - 236

¹⁹⁵ David Santoro, ‘The Nuclear Weapons State, The Non-proliferation Review’, (2010) 17:1, 23 -47

<<http://www.tandfonline.com/loi/rnpr20>> accessed 7 January 2013

¹⁹⁶ Sharon Squassoni, ‘The New Disarmament Discussion’ (Current History (714): A Journal of Contemporary World Affairs) < www.Currenthistory.com/Article.php?ID=648 > accessed 20 January 2013

important in examining the broader political context including the role of non-state actors.

For the avoidance of international infringements and to highlight the international legal necessity for nuclear weapons disarmament, the court adjudicated on the fundamental issues of policy and substantive merits of factual decisions in delicate cases like national security, defence and international relations, in the legal suit, (*On the Application of the Campaign for Nuclear Disarmament*) v *The Prime Minister of the United Kingdom and others*.¹⁹⁷ The claimant in this case, sought the ruling of the court for the declaratory relief of the real interpretation of the United Nations Resolution 1414 and requesting the court to declare that the United Kingdom government will be violating international law if it were to embark on military actions against Iraq without further supporting resolution.¹⁹⁸ Conversely, the respondent succumbed that the English court would not rule on the actual implication and effect of international agreements which is only applicable on the sphere of international law.¹⁹⁹

Meanwhile, as explicitly expressed more than five decades ago by Christopher Driver:

*“Disarmament can never remove the residual potentiality of force . . . But if the disarming of States were accompanied by a similar build-up of non-violent defence techniques in the countries concerned, then at the level of force which aggressor States could mount, invasion and subjection of other countries would not seem a profitable or attractive policy.”*²⁰⁰

Prior to the emergence of the TPNW in the course of this research, the researcher observed that, “nuclear weapons legal regulation is fragmented.”²⁰¹ The various international treaties on nuclear weapons hitherto addressed precise issues such as explicit ban of states on nuclear weapons testing and detonation, either in certain underground locations or only in specific uninhabited atmospheric places.²⁰²

Consequently, this thesis is structured into six chapters. **Chapter one**, which is the introductory chapter, contextualises the nuclear weapons problems with elaborate elucidations of key concepts of the research. **Chapter two** centres on research philosophies, methodologies and literature review.

As part of the broader context of this research, **chapter three** examines the nuclear arms race, its antecedents and historical overview as well as the legal imperative for nuclear disarmament.

Sequentially, **chapter four** uses academic legal research lens to look at the political implications and diplomatic influences on the legal framework for nuclear disarmament. **Chapter five** is entirely on the research findings and fundamental recommendations

¹⁹⁷ (*On the Application of the Campaign for Nuclear Disarmament*) v *The Prime Minister of the United Kingdom and others* [2002] EWHC 2777 [2003] ACD 36 CND

¹⁹⁸ Ibid

¹⁹⁹ (*On the Application of the Campaign for Nuclear Disarmament*) v *The Prime Minister of the United Kingdom and others* [2002] EWHC 2777 [2003] ACD 36 CND

²⁰⁰ Christopher Driver, *The Disarmaments: A Study in Protest* (Hodder & Stoughton Ltd, 1964) 247

²⁰¹ Lisa Tabassi, *The Nuclear Test Ban: Lex Lata or de Lege Ferenda* [2009] 14(2), 309

²⁰² Ibid

for nuclear disarmament. Lastly, **chapter six**, which is the concluding chapter, is specifically on research summary, limitations and conclusion.

CHAPTER TWO

RESEARCH PHILOSOPHY METHODOLOGY AND LITERATURE REVIEW

2.1 Introduction

The introductory chapter of this research gave a background overview on nuclear weapons disarmament in the context of legal provisions in terms of international law, embodied in international treaties and multilateralism. However, this chapter progresses the discussions by examining research philosophies, methodologies and literature review on nuclear disarmament.

In undertaking scholarly research, it is fundamental to consider various research paradigms under ontology and epistemology. These paradigms elucidate beliefs, assumptions, perceptions, nature and knowledge of reality as they invariably influence the processes and outcome of research, through research design, methodology and conclusion. Consequently, the understanding and discourse of philosophy of research and its methodological approaches are in conformity with the nature and aims of specific enquiry adopted by the researcher; ultimately to ensure that the researcher's biases and pre-conceptions are identified, exposed and eliminated. This is obvious, as we all have our inherited preferences, which are most likely to shape our research designs.²⁰³

In view of the above considerations about research, researchers must maintain academic objectivity at all times in considering series of choices and demonstrate that these choices are in conformity with the original research problem.²⁰⁴ Therefore, this chapter examine the jurisprudential rational and paradigmatic assumptions consequential to nuclear weapons disarmament. These are discussed in the light of natural law theory and legal postivism as well as research philosophical concepts of ontology and epistemology, interpretivism and social constructivism that underpinned the arguments for nuclear disarmament.

This chapter equally discusses the various legal research metholdologies namely: doctrinal lagal methodology (black letter law), comparative legal methodology or empirical legal methodology as well as qualitative and quantitative research methologies and the rationale for adopting the doctrinal legal research method for this reseach.

Furthermore, this chapter also features the literature review of this research. The literature review is classified into parts. These include: review of academic scholar articles and review of selected academic textbook authors on nuclear weapons, international law, and disarmament. The research methodology adopted in this research and the literature review are interwoven as the black letter law approach complement the analysis of nuclear weapons disarmament in international law.

²⁰³ K. James and S Vinnicombe, 'Acknowledging the Individual in the Researcher' in D. Partington (ed) *Essential Skills for Management Research* (SAGE Publication Ltd, 1st edn, 2002) 84 -98

²⁰⁴ N. Blaikie, *Designing Social Research* (Polity Press, 1st edn, 2000)

2.2 General Jurisprudence: Philosophy of Law

Jurisprudence which began in the 18th century is the study of the first principles of the nature of law, namely, the civil law and the law of the natures known as *jurisprudencia naturalis*.²⁰⁵ Jurisprudence can therefore be said to be the study and the theory of law. It is the study of fundamental elements of legal system in general and the consideration of collective judicial precedents.²⁰⁶ Etymologically, the English word jurisprudence is a derivative of the combinative Latin word *jurisprudencia*: *juris* which is the genitive form of *jus* which means 'law' and *prudencia* means 'prudence'. Contextually, prudence also implies discretion, foresight, forethought, and circumspection, in reference to the exercise of good judgement, common sense and caution in the conduct of practical issues such as law.²⁰⁷

In its broader sense, jurisprudence is the study of legal doctrines, rules, and principles of any legal system. In a more common and narrower sense, it is the designation of the study of the actual laws of a particular legal system, body or division of law.²⁰⁸ Historically, jurisprudence is defined as encompassing all kinds of general intellectual inquiries about law which are not solely restricted to doctrinal exegesis or technical prescription.²⁰⁹ Essentially, jurisprudence has been centred on the question: "what is law."²¹⁰

*"Jurisprudence addresses the questions about law that an intelligent layperson of speculative bent – not a lawyer – might think particularly interesting. What is law? ... Where does law come from? ... Is law an autonomous discipline? ... What is the purpose of law? ... Is law a science, a humanity or neither? ... A practicing lawyer or judge is apt to think questions of this sort at best irrelevant to what he does, at worst naive, impractical, even childlike (how high is up)."*²¹¹

The aforementioned question "what is law"? invariably leads to more fundamental questions such as: what is the purpose of the law? Does the law consist of mere rules and regulations? Can anything be law? Does the law have anything to do with justice, morality or democracy? What determines the validity of the law? Are we obliged to obey the law? These and other similar important questions suffuse the framework of jurisprudence in the light of nuclear disarmament. Does nuclear weapons disarmament have an existings legal framework? Is there ethical justification or morale rationale for nuclear disarmament?

Consequently, jurisprudential questions are ubiquitous and inescapable from the feature of law and legal system.²¹² Scrupulous analysis and jurisprudential consideration of the most fundamental questions of law, justice, and the meaning of

²⁰⁵ Bryan A. Garner (ed), *Black Law Dictionary* (Thomson Reuters, 9th edn, 2009) 932 &933

²⁰⁶ Ibid

²⁰⁷ John Simpson and Edmund Weiner (eds) *Oxford English Dictionary* (Oxford University Press, 2nd edn, 1989)

²⁰⁸ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 455

²⁰⁹ Roger Cotterrell, *The Politics of Jurisprudence a Critical Introduction to legal Philosophy* (Butterworths, 1989) 2

²¹⁰ Brian Bix, *Jurisprudence: Theory and Context* (Sweet & Maxwell, 6th edn, 2012) 9

²¹¹ Richard A. Posner, *The Problems of Jurisprudence* (Harvard University Press, 1993)

²¹² Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 1

legal concepts are thus essential²¹³ of which the legal framework of nuclear disarmament is part of the present research.

Scholars in jurisprudence who are also known as legal theorists include legal philosophers and social theorists of law. The scholars desire to acquire deeper comprehension of the nature of law, legal reasoning, the legal system, and legal institutions. Jurisprudence broadly construed as the philosophical enquiry into the nature of law and the value it serves is confronted by two categories of pertinent problems proper to law in general:

(1) Problem internal to law and legal system as such and

(2) Problem of law as a particular social institution as it relates to larger

*political or social situation in which it exists.*²¹⁴

The answers to the above problems are intrinsically within the domain of General Jurisprudence or Philosophy of Law.²¹⁵

In the United States and in most Anglo-American legal academic opinion jurisprudence is synonymous and mostly interchangeably used with the phrase “Philosophy of Law” (Legal Philosophy). This is inevitably so because, “Philosophy of Law” is ostensibly intertwined with the nexus between the academic disciplines of Philosophy and Law. This is not a general or unanimous perception. There exists a persistent dimension of jurisprudence that encompasses a pre-dominant legal theory of non-philosophical nature that expatiate legal concepts and normative theory arising from law as an autonomous academic discipline.²¹⁶ This implies the autonomy of this present academic legal research on nuclear disarmament by using the provisions of international treaties as justification to espouse the discourse for disarmament.

Legal philosophy categorised as jurisprudence can encompass all philosophical speculations rather than empirically, based social scientific theory on matters of law or related to law.²¹⁷ The central focus of legal philosophy is to analyse the structures of reasoning concerned with the presuppositions of legal doctrine driven by the conceptual apparatuses by which human experience is interpreted.²¹⁸ Thus, legal philosophy in this sense cannot be clearly separated from the form of enquiries undertaken by sociology of law. This is factual as this research is an intellectual effort within legal scholarship in examining nuclear weapons and disarmament as conceivable societal phenomena.

Interestingly, there are four dimensions of jurisprudence within the domain of law. The first and the most prevailing aspect of jurisprudence seek to analyse, explain, classify and criticise the whole bulk of law. Law books and legal encyclopaedias as well as law

²¹³ Ibid

²¹⁴ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 677

²¹⁵ Ibid

²¹⁶ Legal Theory, Jurisprudence, and the Philosophy of Law < [http://www.](http://www.isolum.typepad.com/legal_theory_lexicon/2005/05/legal_theory_le.html)

[isolum.typepad.com/legal_theory_lexicon/2005/05/legal_theory_le.html](http://www.isolum.typepad.com/legal_theory_lexicon/2005/05/legal_theory_le.html)> accessed 7 May 2014

²¹⁷ Roger Cotterrell, *The Politics of Jurisprudence a Critical Introduction to legal Philosophy* (Butterworths, 1989)

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²¹⁸ Ibid

books on nuclear disarmament stand to represent this form of jurisprudence. The second dimension of jurisprudence compares and contrasts law with other academic disciplines such as Philosophy, Sociology, Psychology, Political Science, and other disciplines in the humanity and the social sciences. The third form of jurisprudence seeks to expose the historical, moral and cultural background of a particular legal concept such as nuclear disarmament. And the fourth type of jurisprudence centres on finding answers to such abstract questions as what is law? And how do judges properly decide cases?²¹⁹

“Jurisprudence has generous frontiers”²²⁰ and it accommodates numerous subjects of cognitive enquiry²²¹ as indicated in the above discussions. However, jurisprudence and the law itself are troubled with the questions of definition. This problem of definition is very much easy to state than to resolve. Nonetheless, there exist effortless processes by which scholars can simplify and clarify issues on this fundamental question of definition.²²² Such questions may include what is law as it is? or what is law as it ought to be? In line with this research, questions can equally be asked as what is the need for nuclear weapons disarmament? And why has there not be nuclear disarmament inspite of its legal framework and international efforts?

In Hart’s ‘Definition and Theory of Jurisprudence’, he admonishes that the act of attempting to define a legal concept should not be confused with an account of what one might call *ideological function*. And to do so conflates logical and political criteria. This he called the ‘theory of the back of definition’.²²³ Legal theory has a central role to play in defining, determining, and upholding the values that underpins our world.²²⁴ This truism underscores both the natural law theory and the theory of legal positivism *vis a’ vis* nuclear disarmament in the light of the existing international law and multilateral treaties.

2.3 Revelance of the Concept of Law to the Research

The jurisprudential notions of the rule of law, legal moralism, and civil disobedience, extend beyond political theory²²⁵ in all aspects and facets affecting the campaign of nuclear weapons disarmament. Legal theories require a principle or the rationale that will enhance them to be differentiated from the fundamental reasons of other theories and to identify what is pivotally salient when analysing the different interpretations of the concept of law.²²⁶ Research on the methodology of legal theory aims to expatiate

²¹⁹ Jurisprudence <<http://www.law.cornell.edu/wex/jurisprudence>> accessed 7 May 2014

²²⁰ Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 4

²²¹ Ibid

²²² Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 4

²²³ H.L.A. Hart, ‘Definition and Theory in Jurisprudence’, [1954] *Law Quarterly Review* 70, 37; reprinted in his *Essays in Jurisprudence* and published to Oxford Scholarship online: March 2012 < [http:// www. Oxfor scholarship.com](http://www.Oxfor scholarship.com) > accessed 7 May 2014

²²⁴ Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 9

²²⁵ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 456

²²⁶ Veronical Rodriguez-Blanco, ‘Is Finnis Wrong? Understanding Normative Jurisprudence’ [2007] *LT* 13 (3/4), 257 – 283

the ways or paths to identify the topical issue of jurisprudence, that is, the rationale that underpins the jurisprudential argumentation that has not been deeply considered.²²⁷

Controversies exist whether the concept of jurisprudence is either social or a normative truism or the combination of both.²²⁸ Sociological jurisprudence entails the examination of the relationship between legal rules and the behavioural character of individuals, groups and institutions. This sociology of jurisprudence leads to functional jurisprudence which is an enquiry into the relationship between legal framework of disarmament underlying social interests or needs.²²⁹

The combination of sociological jurisprudence and normative fact makes jurisprudence analytical. Analytical jurisprudence investigates the meaning and connections amongst legal concepts. Within analytical jurisprudence, the extensive bulk of thought centres on the meaning of the concept of law itself. The concept of law is predicated on historical jurisprudence which is a study and development of legal principles over time, and frequently emphasising the origin of law in custom or tradition in contradistinction to enacted rules.²³⁰

Further to this jurisprudential discourse, how can we explain the reality that there is one concept of law when there are different conceptions of law within a range of different features? In the central case of Aristotelian notion, the idea that the concept of law is most likely unified by a primary concept then leads us to the concept of "*law as a practical reason*"; meaning law conceivable from an ethical perception²³¹ as it pertains to nuclear disarmament.

Consequent to this epistemic question on the concept of law as stated in the above paragraph, the methodological assumption(s) required for this research is integral to legal academic specialty because it specifies a relatively specific area of international law as its focus. The preference concerning the methodology chosen in this research arose with the methodological assumptions that permeated the research in its entirety.

For the avoidance of "paradigmatic confusion" which occur when contrary epistemological assumptions are inadvertently mixed in explanations and practice,²³² the key paradigmatic assumptions in research philosophy will be elucidated in this chapter. If for any reason the paradigm underpinning a particular practice is different from the explanations accruable to it, both the credibility of the concept and the effectiveness of the method adopted suffer a research set back.²³³

The choice regarding methodology, whether been qualitative, quantitative, mixed methods or comparative legal analysis a researcher adopts, the exposition of all the assumptions need to be explicitly explained. Consequently, the jurisprudential theories

²²⁷ Ibid

²²⁸ Ibid

²²⁹ Ibid

²³⁰ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 456

²³¹ Veronical Rodriguez-Blanco, 'Is Finnis Wrong? Understanding Normative Jurisprudence' [2007] LT 13 (3/4), 257 – 283

²³² Milton J. Bennett, 'Paradigmatic Assumption of Intercultural Communication' [2005] Hillsboro: IDRInstitute <www.idrinstitute.org> accessed 07 April 2015

²³³ Ibid

of natural law and legal positivism as well as all the ontological and epistemological assumptions associated with this research are methodological imperatives not only for the purposes of this research but essentially to broaden the research feature inquiry.

2.4 Natural Law Theory: Its Relevance to the Debate on Nuclear Disarmament

Natural Law, also known as the law of nature is the non-codified body of natural and universal moral principles that underscore the ethical and legal standards by which human conduct is often evaluated and ruled.²³⁴ Natural law, which has an ancient history stretching back over 2000 years is sometimes compared with positive law which consist of written rules and regulations enacted by governments or sovereign authorities.²³⁵

The phrase natural law is derived from the Latin words *jus naturale*. Naturalists, as the adherents of natural law are known, strongly believe that natural law norms are inherent part of nature and exist in the world irrespective of whether the sovereignty of States recognises or enforces them. Naturalists also believe that government of States as a matter of necessity must incorporate natural law principles into their legal system before true justice can be achieved.²³⁶

There are three schools of thought of natural law theory namely: divine natural law, secular natural law, and historical natural law. However, as a result of the stance of these schools of thought, natural law theory is splinted into two parallel positions: natural law theory of morality and natural law theory of legality or natural law theory of law (positive law).²³⁷ The various schools of natural law will be reviewed before drawing inferences to the issue of nuclear disarmament.

Divine natural law as a school of thought maintains that natural law represents the system of principles believed to be inspired or revealed by God or other supernatural or supreme power. Proponents of divine natural law hold that law must be enacted in conformity with what was inspired by God or some other deity, who rules the world according to the principles of truth, compassion and justice. The naturists of the divine natural law also assert that the legitimacy of any human law made must be measured by its compliance of standard with divine principles of right and wrong.²³⁸

St. Thomas Aquinas (1225 – 74), the Italian philosopher and theologian and the most influential thinker of the medieval epoch that produced powerful philosophical synthesis that combined Aristotelian and a Neo- platonc element with a Christian context in an original and ingenious manner was the originator and leading exponent of divine natural law.²³⁹

The secular natural law school of thought represents the body of principles arising from the physical, biological, and behavioural laws of nature perceived by the human

²³⁴ John Bell, 'Natural Law' [1993] LQR 109(Jan), 132 - 137

²³⁵ Robert Cryer at al, *Research Methodologies in EU and International Law* (Hart Publishing, 2011) 35

²³⁶ Oran Doyle, 'Legal Positivism, Natural Law and the Constitution' [2009] DULJ 31, 206 - 227

²³⁷ Philip Anthony Harris, *The Distinction Between Law and Ethics in Natural Law Theory* (Edwin Mellen Press, 2002) 32

²³⁸ Christine Pierce, *Immovable Laws, Irresistible Rights: Natural Law, Moral Rights and Feminist Ethics* (University Press of Kansas)

²³⁹ Ibid 36

intellect and understood through human reasoning. This school of thought theorises about the standardized and fixed rules of nature, specifically human nature, to know moral and ethical norms. In view of the influence of the 17th century of rational empiricism and the 18th century enlightenment theorists who laid emphasis on observation and experiment in attaining reliable and demonstrable truths, secular natural law places the capacity of the human intellect above spiritual authority or religiosity.²⁴⁰

The secular natural law theorists predicate their arguments and critical thinking on hypotheses about human behaviour in the state of nature, a presuming primitive stage in human evolution before the creation of governmental structures and institutions as well as other complex societal organisations. In the state of nature, John Locke wrote, human beings live in accordance with three principles: liberty, equality, and self-preservation.²⁴¹ As a result of the absence of government in the state of nature to maintain law and order, police protection and the regulation of distribution of goods, benefits, and other services, each individual has the right to self-preservation which he or she might exercise on an equal scale with everyone.²⁴² This right of self preservation in the above presuming state of nature in relation to self defense in view of nuclear weapons, negates efforts to the arguments and discourse in support of nuclear disarmament.

The right everyone has in the state of nature includes the liberties to a peaceful life, accumulation of wealth and property and the satisfaction of personal needs in conformity with the liberty of others. Arguably, Locke posited that anyone who deprives another person his or her right in the state of nature violates the principle of equality. This principle of equality is deficient in terms of nuclear weapons possession. This invariably leads to the fundamental research question: what is the sovereign equality rationale behind the five NWS as nuclear weapon states?

Meanwhile, John Locke used the state of nature to ultimately illustrate the unsatisfying nature of human society. Human liberty is neither equally fulfilled nor protected because individuals have the tendency to possess the liberty that delineate the limits of their own personal needs or desires in the state of nature. Inevitably, greed, narcissism, and self-interest will eventually rise against the liberty of others, creating irrationality and excessiveness, thereby placing human safety and society at risk. Therefore, in Lockean Jurisprudence, the law of nature directs people to establish a government that is empowered to protect life, liberty and property.²⁴³

The historical natural law school of thought stands to represent the system of principles that developed over time through gradual process of accretion of custom, tradition, and human experience. In the view of the naturalists of this school of thought, the law must be made to correspond with long-standing but unwritten, customs, traditions and human experience.

²⁴⁰ Philip Anthony Harris, *The Distinction Between Law and Ethics in Natural Law Theory* (Edwin Mellen Press, 2002)

²⁴¹ John Locke, *Second Treatise on Government* (Hacket Publishing Indianapolis, 1980) First Printed in 1690

²⁴² Ibid

²⁴³ Ibid

However, in jurisprudence, natural law theories are opposed to legal positivism, the categorical view that the only binding laws are those enacted by human sovereignty which are not subjected to higher legal constraints.²⁴⁴ Modern proponents of natural law are rare; amongst the staunch modern naturalists are Robert P. George whose work: *In Defence of Natural Law* is probably the most outstanding modern defence of naturalism and John Fennis whose genre: *Natural Law and Natural Rights* is acclaimed as contribution to the subject area.²⁴⁵

2.5 Legal Positivism and how it Relates to this Research

Legal positivism is a jurisprudential theory about the nature of law generally characterised by two major views: that there is no necessary connection between law and morality; and that legal validity is ultimately influenced by reference to certain crucial social facts such as the command of the sovereign and the rule of recognition. Legal positivism is predicated on the simple claim that the proper description of law is a commendable objective and a duty that needs to be kept separate from moral judgements in view of the present law, and in view on how the law should be upheld, developed, or changed.²⁴⁶

The theory of legal positivism is opposed to the theory of natural law, which is ultimately associated with morality, and identify that there are laws that are immanent in nature with the intentions of God. The core tenets of legal positivism are that all laws are made and laid down by human authorities and the validity of a rule of law rests in its formal legal status.²⁴⁷ This implies that laws which are validly made, articulated, and recognised by a law-making body are not deducible from extra-legal sources like morality, human dignity, or religious doctrine unless a valid legal norm specifically make reference to such concepts to determine its content and context.²⁴⁸

From this standpoint of legal positivism, the requirement for nuclear disarmament should be limited to the rules of the legal framework free from any consideration based on ethical or moral judgement.

Essentially, in theorising about law, the view of description and the least morally neutral theory of law is not only possible but also valuable.²⁴⁹ Thus, law is limited to observable phenomenon of legislation, adjudication by the courts and customs by other legal institutions. The Treaty of Westphalia of 1648, which is widely considered as the beginning of the modern international legal system of sovereign states, epitomised the break down of the ancient Roman Empire's supremacy and religious legitimacy world, thereby making legal positivism a dominant approach in international law.²⁵⁰

Legal scholars like Jeremy Bentham (1748 – 1832) and John Austin (1790 -1859) successfully espoused the theory of legal positivism.²⁵¹ Digging deeper, the root of

²⁴⁴ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 599

²⁴⁵ Robert Cryer at al, *Research Methodologies in EU and International Law* (Hart Publishing, 2011) 35

²⁴⁶ Brian Bix, *Jurisprudence: Theory and Context* (Sweet & Maxwell, 6th edn, 2012) 33

²⁴⁷ Robert Cryer at al, *Research Methodologies in EU and International Law* (Hart Publishing, 2011) 36

²⁴⁸ Ibid

²⁴⁹ Brian Bix, *Jurisprudence: Theory and Context* (Sweet & Maxwell, 6th edn, 2012) 33

²⁵⁰ Robert Cryer at al, *Research Methodologies in EU and International Law* (Hart Publishing, 2011) 36

²⁵¹ Ibid

legal positivism is traceable to these socio-political philosophers and social theorists: Thomas Hobbes (1588 – 1679),²⁵² David Hume (1711 – 1776)²⁵³ and Auguste Comte, the founder of sociology (1798 -1857).²⁵⁴ In modern times, the most prominent scholar in the history of the theory of legal positivism and jurisprudence is H.L.A. Hart, (1907 - 1992) whose wonderful piece of scholarship: *The Concept of Law* fundamentally reshaped the positivistic doctrine and its correlation with other major theories of law.²⁵⁵

Simply put, legal positivism is constructed within and around the belief or the dogmatic assumption that the question of what is law is separate from, and must be separated from, the question of what law ought to be.²⁵⁶ John Austin succinctly expresses this assertion thus:

“The existence of law is one thing; its merit or demerit is another. Whether it be or be not is one enquiry; whether it be or be not conformable to an assumed standard, is a different enquiry. A law, which actually exists, is law, though we happen to dislike it or thought it; vary from the text by which we regulate our approbation and disapprobation.”²⁵⁷

From the study of law, legal positivism seek nothing more and nothing less than what it considered the foundation of modern social theory: that is, social institutions can be studied in an objective approach, free from preconceived notion or ideology.²⁵⁸ Hence, the comparison and contrast between legal positivism and scientific positivism by Fuller (1968) is contextually relevance and commendable.

*“[I]t will be helpful to offer some comparisons between legal positivism and its counterpart in science. Scientific positivism condemns any inquiry projecting itself beyond observable phenomena: it abjures metaphysics; it renounces in advance any explanation in term of ultimate causes. Its programme of research is to chart the regularities discernible in the phenomena of nature at the point where they become open to human observation, without asking – as it were, how they got there. In the setting of limits to inquiry, there is an obvious parallel between scientific and legal positivism. The legal positivist concentrates his attention on law at the point where it emerges from the institutional processes that brought it into being. It is the final made law itself that furnishes the subject of his inquiries. How it was made and what directions of human effort went into its creation are for him irrelevancies.”*²⁵⁹

Academically, it is imperative to know that positivism is not an absolutely jurisprudential approach. Positivism can be logical, philosophical, sociological, scientific or legal. Its central concern or claim is the view that only true knowledge is exact knowledge, which

²⁵² Sean Coyle, ‘Thomas Hobbes and the Intellectual Origins of Legal Positivism’ [2003] *Canadian Journal of Law and Jurisprudence* 16, 243

²⁵³ Goerge Christie and Patrick Martin (ed) *Jurisprudence: Text and Reading on the Philosophy of Law* (West Publishing, 2nd edn, 2008)

²⁵⁴ Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 57

²⁵⁵ Scott Veitch et al, *Jurisprudence Themes and Concepts* (Routledge, 2nd edn, 2012) 132

²⁵⁶ Brian Bix, *Jurisprudence: Theory and Context* (Sweet & Maxwell, 6th edn, 2012) 34

²⁵⁷ W E Rumble (ed) in John Austin, *The Province of Jurisprudence Determine*, Lecture V (Cambridge University Press 1995) First Published in 1832, p 157

²⁵⁸ Brian Bix, ‘H.L.A. Hart and the Hermeneutics Turn in Legal Theory’ [1999] *SMU Law Review* 52, 167

²⁵⁹ Lon L. Fuller, *Anatomy of Law* (Praeger, 1968) 177-78

emerges only from the positive verification of theory by application of firm scientific methods.²⁶⁰

Therefore, legal positivism is suitable to research questions concerning the description and explanation of law as it addresses the analysis of complex legal texts to unravel their meaning. In the same vein, legal positivism is suited to research projects that are design to systematise legal norms and to correlate the rationale between different bodies of legal norms. It also analyses the judgements of the courts to determine their coherence or accuracy of the application of their sources of law.

In view of this objective fact, looking at the law as it is and looking at the law, as it ought to be in terms of substantial compliance on nuclear weapons disarmament, there is the dire need for appreciable improvement and the implementations of the various recommendations arising from nuclear weapons non-proliferation treaty review conferences.

Legal research based on positivism is often referred to as analytical or doctrinal legal research. However, doctrinal legal research is proper to the law and it cannot be a substitute to the law nor can it make a categorical statement about what the law ought to be.²⁶¹

Furthermore, legal positivism attempts to discover the characteristic features of the legal system that are posited by legislators, judges and all lawmakers. In spite of this, legal positivism as a theoretical legal doctrine has generated a lot of misunderstanding.²⁶² In fact, the misconception generated by the theory is so acute that some renowned legal scholars are of the view that the phrase 'legal positivism' should be jettisoned.²⁶³ Following the ambiguity surrounding legal positivism, Hart (1954) in his work, 'Positivism and the Separation of Law and Morals' enumerated five salient factors inherent in legal positivism:

1. *That laws are commands of human beings.*
2. *That there is no necessary connection between law and morals.*
3. *That the analysis of legal concepts is (i) worth pursuing, (ii) distinct from (though not hostile to) sociological and historical enquiries and critical evaluation.*
4. *That a legal system is a 'closed logical system' in which correct decision may be deduced from predetermined legal rules by logical means alone.*
5. *That moral judgement cannot be established, as statements of fact can by rational arguments, evidence, or proof.*²⁶⁴

In the light of the above Hart's five factors inherent in legal positivism, the legal framework on nuclear disarmament seems to be in correlation. Certainly, the various existing international treaties on nuclear weapons are made by state actors, representatives of non-state actors, and legal professional body such International Association of Lawyers Against Nuclear Arms (IALANA) through multilateral

²⁶⁰ Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 57

²⁶¹ Robert Cryer et al, *Research Methodologies in EU and International Law* (Hart Publishing, 2011) 36

²⁶² Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 57

²⁶³ RS Summer, 'The New Analytic Jurist' [1966] *New York University Law Review* 861, 889 -90

²⁶⁴ PA Bulloch and J Raz, *HLA Hart, The Concept of Law* (Clarendon Press, 2nd 1994) 253

negotiations by the United Nations Office for Disarmament Affairs (UNODA). This makes it in line with the first factor that says, "Laws are command of human beings."

However, the legal framework for nuclear disarmament appears to be somewhat a departure from the second factor inherent in legal positivism. In terms of nuclear disarmament, there is the semblance of necessary connection between law and morality as disarmament is being underpinned by both ethical and legal standards. For instance, Article IV of the NPT prohibits States from the spreading of nuclear weapons and technology and encourages States to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear complete and general disarmament. This presupposes that nuclear weapons usage are not peaceful because of both their inherent and indiscriminate destructiveness. Obviously, any pursuit of peace is influenced by moral motive or ethical consideration.

Similar to the first factor inherent in legal positivism, the legal framework for nuclear weapons disarmament is in consonant with the third factor; as the concepts of nuclear disarmament is worth pursuing and not a mere sociological and historical enquiries driven by critical evaluations. For example, Article VI of the NPT says:

"to pursue negotiation in good faith on effective measure relating to cessation of nuclear arms at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control."²⁶⁵

The Non-Proliferation Treaty is the bedrock of the various existing Nuclear Weapons Free Zones Treaty as the subceeding Article VII states the:

"Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories."²⁶⁶

In summary, the legal framework for nuclear disarmament is tripartite in nature as: States without nuclear weapons should not acquire them; States with nuclear weapons should pursue disarmament; and all States can and should access nuclear technology for peaceful purposes under safeguard.

It is on this basis of safeguard and on the Phrase "complete and general disarmament under strict international control" in Article VI of the NPT that the nuclear weapons legal framework corresponse with the fourth factor inherent in legal positivism. Nuclear weapons legal framework is clearly both "a legal and 'closed logical system' in which correct decision may be deduced from predetermined legal rules by logical means alone" in terms of verification and compliance. The International Atomic Energy Agency (IAEA) is empowered by law in Article XII of its Status to regulate and verify nuclear materials and installations in the world by the creation and administration of safeguard designs by which all Nuclear Weapons States and States with nuclear capabilities are obliged to comply.

²⁶⁵ Treaty on the Non-Proliferation on Nuclear Weapons, July 1, 1968, art VI

²⁶⁶ Treaty on the Non-Proliferation on Nuclear Weapons, July 1, 1968, art VII

Sentimental judgement or reasons outside the legal framework on nuclear disarmament by advocacy groups such as the Campaign for Nuclear Disarmament (CND), underscores the validity of the fifth factor inherent in legal positivism. Arguably, mere moral judgement cannot be established as the factual statements of the law. All global, regional and national advocacies and campaigns for nuclear disarmament with moral persuasions and ethical colorations that are outside the provisions of the multilateral treaties on nuclear disarmament are not analogous to legal framework on nuclear disarmament.

In the explicit or 'scientific' analysis of law and legal rules, it is arguable that law as laid down (*positum*) should be separated from the purpose of studies and analysis from law as it ought to be. This implies that a clear cut dichotomy should be established between law as it ought to be (the moral desirability of law) and law as it is (law which actually exists).²⁶⁷ It is on this background that the legal framework on nuclear disarmament should be gauged or evaluated.

From the foregoing, legal positivism takes a very narrow view of legal research. Modern research in its very nature is multi-disciplinary and legal research is sometimes influenced or extended to deal with moral questions. This present research which is on nuclear disarmament in international is not devoid of moral questions.

2.6 Ontology and Epistemology: Their Relevance to the Present Research

Ontology which is rooted and synonymous with metaphysics within a circumscribed context is generally known as the philosophical investigation of the nature, constitution and structure of reality. In other words, ontology is the study of being and being is the most general necessary characteristics that anything must possess in order to be counted as an existing entity.²⁶⁸ Ontology portrays the concept of our general world view (whether claims or assumptions) on the nature of reality, regardless whether it is an objective reality that really exist on subjective reality created in our minds.²⁶⁹ Subjective reality in the context of this research is predicated on the fact of the threat nuclear weapons pose to the world; while objective reality, is the very existence of nuclear weapons and the discourse associated with them.

The description of ontology as the study of being that extends to the social sciences (inclusive of law) include claims about what exists, its appearances, and the units that constitute it and how the units interact with one another.²⁷⁰ The complexities of the phenomena of power, culture and control as specific realities are daily basic societal illustrations of ontology. Do these realities exist only through experience (subjectivism) or do they exist independently of those who live it (objectivity) and ultimately how do an individual or group determine these realities? The determination of these realities in view of this research is the evaluation of the effectiveness of the applicable legal provisions on nuclear disarmament.

²⁶⁷ Raymond Wacks, *Understanding Jurisprudence* (Oxford University Press, 3rd edn 2012) 57

²⁶⁸ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 564

²⁶⁹ MJ. Hatch and AL. Cunliffe, *Organisation Theory* (Oxford University Press, 2nd edn, 2006)

²⁷⁰ N. Blaikie, *The Approaches to Social Enquiry* (Polity Press, 1st edn, 1993)

Consequently, there are several deeply rooted ontological assumptions which invariably influence our human views on what is real and at the same time are attributable to one category of being (entity) over another. If these underlying ontological assumptions are not clearly identified and given utmost considerations, the researcher will definitely be blinded to ascertain aspects of the jurisprudential enquiry on nuclear weapons disarmament which is predicated on multilateralism and international treaties in international law.

Closely related to ontology and all its considerations of what constitute reality is epistemology. Epistemology gives due consideration to the views about the most suitable ways of enquiry into the nature of the external world²⁷¹ and to what is knowledge, what are the sources of knowledge and the limits of knowledge²⁷². Epistemology is the philosophical theory about the method of justification of knowledge and the set of claims or assumptions about the ways in which it is possible to attain the knowledge of reality. In epistemology, the assumption is, what exist may be known, and can be known, and the question is, what criteria must be met in order ascertain knowledge?²⁷³

In the same vein, epistemology revolves around the need to reflect on methods and standards through which reliable and verifiable knowledge is acquired²⁷⁴. This implies, knowing how we can know, asking how is knowledge acquired, what criteria differentiate good knowledge from bad knowledge, and how should reality be described or represented? These questions underscore both the nexus between Ontology and Epistemology and their inter-independent connectivity²⁷⁵.

The quest to achieve true objectivity leads to the concepts of 'research paradigm'²⁷⁶ or 'research philosophy'.²⁷⁷ Research philosophy is fashioned from fundamental ontological and epistemological assumptions which has developed into both classical and contemporary paradigms to effectively categorise various research approaches²⁷⁸.

Research paradigm is an 'interpretive framework' and a set of beliefs that guide action²⁷⁹. There are three key prevalence paradigms which effectively formed the basis from which other paradigms are derived. These include: positivism, realism and interpretivism/constructivism. However, for the purposes of this research, the interpretivist/constructivist paradigm is being used to drive home the social context of the discourse on nuclear weapons disarmament.

²⁷¹ M. Easter-Smith, R. Thorpe and P. Jackson, *Management Research* (SAGE Publication Ltd, 3rd edn, 2008)

²⁷² P. Eriksson and A. Kovalainen, *Qualitative Methods in Business Research* (SAGE Publications Ltd, 1st edn 2008)

²⁷³ N. Blaikie, *Approaches to Social Enquiry* (Polity Press, 1st edn, 1993)

²⁷⁴ R. Chia 'The Production of Management Knowledge: Philosophical Underpinnings of Research Designs' in D. Partington (ed) *Essential Skills for Management Research* (SAGE Publications Ltd., 1st edn, 2002) 1 - 19

²⁷⁵ MJ. Hatch and AL. Cunliffe, *Organisation Theory* (Oxford University Press, 2nd edn, 2006)

²⁷⁶ N. Blaikie *Designing Social Research* (Polity Press, 1st edn, 2000)

²⁷⁷ M. Saunders, P. Lewis, and A. Thornhill, *Research Methods for Business Students* (Prentice Hall Financial Times, 4th edn, 2007)

²⁷⁸ Ibid

²⁷⁹ N. Denzin and Y. Lincoln 'The Discipline and Practice of Qualitative Research' in N. Dezin and Y. Lincoln, (eds) *Collecting and Interpreting Qualitative Materials* (SAGE Publications Inc. 2nd edn, 2003) 1 - 45

Postivism and realism as research paradigms are embedded in the interpretivistic/constructivism paradigm in this research. As it pertains to the fact that reality entails entities, structure, and events, both natural law and legal positivism theories are interpretivistic framework adopted in this research. Interpretivism of the legal framework on nuclear disarmament is a reality that entails the entities of nuclear weapons. Interpretivism in this research sees nuclear disarmament as an achievable reality. Constructivism on the other hand is distinct but fundamental and instrumental to interpretivism as both share common philosophical roots.

Constructivism perceives knowledge as constructed as opposed to created and it is concern with the nature of knowledge. Consequently, constructivism purely emphasises the significance of the context of culture in understanding what transpire in the society.²⁸⁰ In view of understanding what transpire in the context of culture of existence of nuclear weapons in our world, this research maintain that reality is constructed through human efforts and activities. In the light of nuclear weapons disarmament, the United Nations through its office – United Nations Office for Disarmament Affairs (UNODA) and the United Nations Institute for Disarmament Research (UNIDIR) are existing structure and efforts promoting nuclear disarmament.

2.7.1 Doctrinal Legal Research Method (Black Letter Law)

The doctrinal legal research which is often complemented by “Black Letter approach” method²⁸¹ also known as library based or pure theoretical research is part of qualitative methodology. The doctrinal research asks fundamental questions on what the law is on a particular issue. It is characterised by a simple research aimed at a specific statement of the law or directed at a more complex and in-depth analysis of legal reasoning.²⁸² In the context of doctrinal research, law is seen as a self-contained entity characterised by political neutrality and autonomous of other academic disciplines.²⁸³

This research approach exclusively focused on the traditional legal research and materials and it the required techniques to interpret them, thus, it has been termed ‘*technocentric approach to law*’.²⁸⁴ Doctrinal researchers ‘systematise and rationalise’ the law. They use the techniques of deductive reasoning or syllogistic argument. That is argument by analogy.²⁸⁵

Essentially, the term doctrinal briefly needs to be clarified. The word ‘doctrine’ is a derivative from the Latin noun ‘*doctrina*’ which means instruction, knowledge, or learning.²⁸⁶ Meanwhile, the word doctrine has several derivations and plethora of meaning. A succinct explanation of the term ‘doctrinal’ is that it originates from the

²⁸⁰ Mark McMahon, ‘Social Constructivism and the World Wide Web – A Paradigm for Learning [December 1997] A Paper Presented at the ASCILITE Conference, Perth Austria www.ascilite.org.au/conference/Perth97 accessed 18 July 2018

²⁸¹ Mike McConville and Hong Wing Chui, (eds), *Research Methods for Law* (Edinburgh University Press, 2007) 3

²⁸² Ibid

²⁸³ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 31

²⁸⁴ Margaret Thornton, ‘Technocentrism in Law School: Why the Gender and Colour of Law Remain the Same’ [1998] *Osgoode Hall Law Review*, 36

²⁸⁵ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 31

²⁸⁶ T. Hutchinson and N. Duncan, “Defining the Doctrinal” [2012] *Deakin Law Review* 17 (1), 84

'doctrine' of precedent in which legal rules exist on the quality of being doctrinal because they are not merely casual or convenient norms, but because they are meant to be rules which are consistently applicable and develop organically and gradually.²⁸⁷ Legally, doctrine has been defined as:

'a synthesis of various rules, principles, norms, interpretive guidelines and values. It explains, makes coherent or justifies as a segment of the law as part of a larger system of law. Doctrine can be more or less abstract, binding or non-binding'.²⁸⁸

Researchers who use the doctrinal legal research method are concerned with jurisprudence or the philosophy of law as the topics involved are restricted or circumscribed to a specific law. They mainly concentrate on the nature of law and legal authority; the nature of right, justice and political authority; the theories behind a particular substantive area of law; and the studying of legal decision making process, and the theory of legal interpretation and legal reasoning.²⁸⁹ Significantly, 'theory highlights and explains something that one would otherwise not see'.²⁹⁰ Doctrinal research is strengthened by positivism with the world view whereby the law is objective, neutral and fixed.²⁹¹ It is on this basis that the jurisprudential theories of natural law and legal positivism are used in this research both to elicit the ethical considerations and elucidate the positivists' legal approach to nuclear disarmament.

This necessarily implies that the doctrinal legal research strategy is a research into law and legal concepts. Consequently, the doctrinal methodology is directed at specific enquiries in view of acquiring particular information. For instance, in the case of the present research, an investigation may be conducted into international legal framework on non-proliferation of nuclear weapons and nuclear disarmament and which convention or treaty is actually most applicable. These kinds of question(s) which have definite answers and are verifiable constitute the domain of doctrinal or analytical based research.²⁹²

This method of research was the predominant approach in the 19th and 20th centuries in terms of law and legal scholarship and it had dominant influence in legal research design.²⁹³ Fundamentally, can the law – legislation and case law be classified as data? Arguably not, 'law is not a datum; it is constant evolution, developing in ways that are sometimes startling and endlessly inventive'.²⁹⁴ It is worth noting that with the advent of the 21st century, legal research is becoming more inter-disciplinary and therefore empirical in nature.

²⁸⁷ Dawn Watkins and Mandy Burton(eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 9

²⁸⁸ Trisha Mann(ed), *Australian Law Dictionary* (Oxford University Press, 2010) 197

²⁸⁹ Gordon TF, Artificial Intelligence and Legal Theory at Law School, <http://www.tfgordon.de/pubication/Gordon2005b.pdf> accessed 12 April 2014

²⁹⁰ N. Gilbert, *Researching Social Life* (Sage Publications, 3rd edn, 2008) 25

²⁹¹ T. Hutchinson and N. Duncan, "Defining the Doctrinal" [2012] *Deakin Law Review* 17 (1), 84

²⁹² Ashish Kumar Singhal and Ikramuddin Malik, "Doctrinal and Socio-legal Methods of Research: Merits and Demerits" [2012] *Educational Research Journal* Vol.2 (7), 252-256

²⁹³ Desmond Manderson and Richard Mohr 'From Oxymoron to Intersection: An Epidemiology of Legal Research' [2002] *Law Text Culture* 6(1), 159-161

²⁹⁴ Christopher McCrudden, 'Legal Research and the Social Sciences' [2006] *Law Quarterly Review* 632, 648

In contradistinction to the spectrum of scientific and social research methodologies, the pertinent question is, where does the doctrinal research (black letter law) methodology fit in within any wider cross-disciplinary research framework, specifically the approach in this nuclear disarmament research? Even though the present research is predominantly doctrinal in nature, has nonetheless utilises secondary data sources as part of the methodology.

The doctrinal legal research method revolves at the basis of the common law and it is the core legal research method. Until most recently in legal scholarship, there has been no necessity to explain or justify the doctrinal legal research methodology as a presupposition of juxtaposing cross-disciplinary research methodologies. If it is acceptable that law has a paradigm according to the definition of Kuhn,²⁹⁵ and it is a peculiar field of scholarship and that juristic thought particularly constitutes that discrete and credible paradigm, it then necessarily follows that law would have its own unique research method.²⁹⁶

In precision, doctrinal research methodology in law is a research predicated upon seeking a solution to a particular legal discourse or finding the 'one right answer' to a particular legal question or set of questions.²⁹⁷ The required approaches in doctrinal research methodology are frequently infused.²⁹⁸

These approaches include analysing, synthesising, and critiquing legal issues in view of identifying the core issues that required further research. This involves a lot of background reading so much so that the researcher is well versed in the area of law being researched.²⁹⁹ Using the doctrinal approach does not imply that a research should be exclusively limited to an exposition and clarification of the law.³⁰⁰ Critique and suggestions for the reform of the law are entirely possible and are 'expected at the doctoral level' and they should take place within the domain of the doctrinal analysis.³⁰¹ This really shaped this research in the analysis of the political implications and diplomatic influences on the legal framework for nuclear disarmament.

Background reading include primary sources, and primary sources comprise of original and authoritative statements of law, and sub-divided into three: legislation – law made by parliament; case law – the decision of the courts; and a minor, frequently overlooked yet valuable, group of sources which might be collectively referred to as "extra-legal."³⁰² However, it depends whether the research is based on international law or national law, the sources material will include international treaties and conventions, declarations, and resolutions; as well as delegated legislation and case law.³⁰³ The

²⁹⁵ Thomas Kuhn, *The Structure of Scientific Revolutions* (University of Chicago Press, 1962)

²⁹⁶ CM Campbell, 'Legal Thought and Justice Values' [1974] *British Journal of Law and Society*

²⁹⁷ Ashish Kumar Singhal and Ikramuddin Malik, "Doctrinal and Socio-legal Methods of Research: Merits and Demerits" [2012] *Educational Research Journal* Vol.2 (7), 252-256

²⁹⁸ *Ibid*

²⁹⁹ *Ibid*

³⁰⁰ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 31

³⁰¹ *Ibid*

³⁰² Peter Clinch and David Hart, *Using a Law Library* (Blackstone Press Ltd, 2nd edn, 2003)

³⁰³ Ashish Kumar Singhal and Ikramuddin Malik, 'Doctrinal and Socio-legal Methods of Research: Merits and Demerits' [2012] *Educational Research Journal* Vol.2 (7), 252-256

background reading in this research include the the five existing Nuclear Weapon Free Zone (NWFZ) treaties, the Single State Nuclear Weapon Free zone (SS-NWFZ) treaties the Non-Proliferation Treaty (NPT) and the documents of it various review conferences as well as the various United Nations resolutions on nuclear disarmament.

Also required is a substantive wide range background reading of secondary sources. Secondary sources refer to any background material that provides a summary or overview of an area of law in text or encyclopaedic form. Secondary sources are analogous to legal encyclopaedias, dictionaries, books and journal articles; they provide an overview on a particular area of law by pulling together statutes and case law and interpreting them in light of each other. In general, secondary sources are not themselves the law and should not be cited as the law. Rather, they are a helpful way to get a quick overview of an area of law and to find primary authority such as cases and statutes that constitute the law.³⁰⁴

Consequent upon the background reading in using the doctrinal legal methodology, it is incumbent on the researcher to determine the rules of law applicable to the identified legal issue or issues under research enquiry and to critically analyse the facts in terms of the law because the character of legal scholarship is derived from law itself.³⁰⁵

This is unarguably the most critical stage of the doctrinal legal research methodology as it tends to annex the legal issues already identified with the applicable rule of law and synthesise all other legal discourse arising from the research within the context of the applicable law under research. Upon doing the legal analysis associated with the doctrinal legal research, the researcher would then come to a probable conclusion predicated on the established and considered facts of the law. The concepts and standard that are embodied in the law such as international conventions, legislation, and case law would have been investigated, analysed and elucidated by various authors in different contexts both from convergent and divergent perspectives.³⁰⁶

There are numerous advantages embedded in doctrinal legal research and black letter methodology. Primarily, it is the customary or traditional method for conducting research in law and as such is it necessarily taught during the initial stages of legal training.³⁰⁷ In legal research, data are screened to differentiate the most authoritative from the least authoritative due demand to the quality or relevance of the data to the research enquiry.³⁰⁸ As a result of the dominance of doctrinal and black letter law research in law schools and law offices, research carried out under its designs is most likely acceptable as having the characteristics of legal research. Doctrinal research still stands to represent the norm within legal circles and the most operational as most legal scholarship and researches are based on doctrinal framework.³⁰⁹

³⁰⁴ Georgetown University Law Library Legal Definitions

http://www.ll.georgetown.edu/tutorials/definitions/secondary_source.html accessed 14 April 2014

³⁰⁵ EL. Rubin, 'Law and the Methodology of Law' [1997] *Wisconsin Law Review* 525

³⁰⁶ Ashish Kumar Singhal and Ikramuddin Malik, 'Doctrinal and Socio-legal Methods of Research: Merits and Demerits' [2012] *Educational Research Journal* Vol.2 (7), 252-256

³⁰⁷ Ibid

³⁰⁸ Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2007)

³⁰⁹ Ashish Kumar Singhal and Ikramuddin Malik, 'Doctrinal and Socio-legal Methods of Research: Merits and Demerits' [2012] *Educational Research Journal* Vol.2 (7), 252-256

Judging from the aforementioned backdrop, and because of its focus on established sources of law, doctrinal research method which is usually a two-part process involving both sourcing for the sources of the law and the interpretation and critical analysis of the text is more predictable and time manageable.³¹⁰

Expectedly, several criticisms have been levelled against the doctrinal legal research methodology. Some scholars consider it as too conservative, too theoretical,³¹¹ too technical, trivial and uncritical without utmost consideration of the social, economic and political significance of the legal system and process.³¹² Similarly, other scholars are of the view that the doctrinal research method is too restrictive and narrow its choice and range of investigation. In an attempt to address the above mentioned criticisms, this present research tends to be dynamic by looking beyond its legal content in terms of its aim and object.

This is because, the legal profession is exponentially growing into the larger social context and the context encompasses legal and social theory and this theory encompasses other methodologies subsumed in the natural and social sciences. In view of the contextual reality, doctrinal research methodology does not offer sufficient framework for addressing issues that arise as it assumes that the law exist in objective doctrinal vacuum rather than within a social context or framework.³¹³

As a negation of the above criticisms levelled against the doctrinal legal research, Richard Posner 2009, explicitly express that doctrinal research “is important for the vitality of the legal system and of greater social value than much esoteric interdisciplinary legal scholarship.”³¹⁴ However, as some scholars made a passionate appeal for emphasis on multidisciplinary legal research and enrichment of the traditional legal scholarship with empirical methods, they went to the extreme to argue that ‘doctrinal legal research is dead.’³¹⁵ Irrefutably, ‘if doctrinal legal research has ever been dead, it has until today always succeeded in rising from the grave.’³¹⁶

Generally, one of the disincentives associated in undertaking both the doctrinal and the empirical or socio-legal research is that the researcher needs to spend enough time to adequately master the subject area before commencing the research.³¹⁷ Ultimately, doctrinal legal research methodology transcends any multidisciplinary legal research or empirical research because the corpus of rules, principles, doctrines and

³¹⁰ Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 13

³¹¹ Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 13

³¹² CM Campell, ‘Legal Thought and Juristic Values’ [1974] *British Journal of Law and Society* 1(1), 13-30

³¹³ Ashish Kumar Singhal and Ikramuddin Malik, ‘Doctrinal and Socio-legal Methods of Research: Merits and Demerits’ [2012] *Educational Research Journal* Vol.2 (7), 252-256

³¹⁴ Richard A. Posner, ‘The State of Legal Scholarship Today: A Comment on Schlag’ [2009] *The Georgetown Law Journal* 97, 845-855

³¹⁵ Dawn Watkins and Mandy Burton(eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 17

³¹⁶ R. Van Gestel and H. Micklitz, “Revitalizing Doctrinal Legal Research in Europe: What about Methodology”? [2011] *European University Institute Working Papers Law* 2011/05, 1

³¹⁷ Dawn Watkins and Mandy Burton(eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 17

concepts form the basis for legal reasoning and justification and these constitute legal doctrine which assert that 'legal science, being itself a body of practices, can be understood only by references to its own self-conception.'³¹⁸

Consequently, the adoption of the doctrinal legal research approach in this research is justified based on the analysis of nuclear disarmament within its legal framework in international law. The black letter law embedded in the doctrinal legal research approach in this research is used to analyse, interpret and examine the doctrine of nuclear deterrence, the 1996 International Court of Justice Advisory Opinion on the legality of the threat or use of nuclear weapon as well as applicable international humanitarian law prohibiting the use of nuclear weapons. In the same vein, this methodological legal approach is also used to analyse the 1969 Vienna Convention on the Law of Treaties, the Non-proliferation of Nuclear Weapon Treaties and the Treaty on the Prohibition of Nuclear Weapons. The five existing Nuclear Weapons Free Zone Treaties and the Single State Free Zone treaties are also examined with the black letter law approach.

2.7.2 Comparative Legal Methodology

Comparative legal research methodology is an analytic format of research specifically used to study texts, jurisprudence and legal doctrines of foreign laws. The comparative legal research can be undertaken within the same legal family such as common law jurisdiction or civil law jurisdiction, or between legal families – encompassing customary system of law to the common law, or comparing the common law to the civil law.³¹⁹

Basically, the comparative legal analysis is undertaken for two major purposes: looking outside one's one jurisdiction to understand how legal issue has been resolved elsewhere. For example to know whether the New Zealand Bill of Rights would serve as a good model for the United Kingdom; and looking beyond one's own jurisdiction of family law for common threads of development or patterns in legal responses to societal matters such as how do western European countries react to the wearing of *burqa* by Muslim women?³²⁰ The above issues are called transplant approach and the harmonised approach in comparative law analysis.³²¹

This methodology spreads the awareness of the cultural and social context of the law as it elaborate a unique understanding of the way law evolves and work in different cultural backgrounds.³²² Comparative legal analysis in research provides deeper understanding of the functions of the rules and principles of the laws and involves the exploration of detailed knowledge of the law of other nations to understand them, to

³¹⁸ N. Simmonds, *The Decline of Juridical Reason: Doctrine and Theory in the Legal Order* (Manchester University Press, 1984) 1

³¹⁹ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 37

³²⁰ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 37

³²¹ Ibid

³²² DM Walker, *The Scottish Legal System: An Introduction to the Study of Scot Law* (Green and Son Ltd, 5th edn, 1981)

document them or to trace their evolution.³²³ Consequently, this research methodology is essential in a legal development process where changes, amendment, and modification are necessarily required in law.³²⁴

Due to its fundamental dichotomies between nature and cultures; presumption of similarity and presumption of difference; and ultimately the comparison of laws of different legal systems, the comparative legal methodology is therefore not relevant to this research and as such is not being used in this thesis analysis and approach. The comparative legal research methodology is not being used in this research mainly because this thesis does not compare legal jurisdictions to deduce how legal issues surrounding nuclear weapons disarmament has been addressed.

2.7.3 Socio-legal or Empirical Legal Research Methodology

Law is indisputably an essential and critical part of the social world. Consequent upon this truism, Lord Leslie Scarman (1911-2004), strongly emphasised that:

*“There is no cosy little world of lawyers’ in which learned men may frolic without raising socially controversial issues—I challenge anyone to identify an issue of law reform so technical that it raises no social, political or economic issue. If there is such a thing, I doubt if it would be worth doing anything about it.”*³²⁵

Following the recognition of the fact that the law operates in the social context of the wider world, the development of socio-legal methodology as a framework for conducting legal research thus became an undeniable necessity.³²⁶ Socio-legal research also known as empirical legal research method or non-doctrinal research is a research in law that uses the methods taken from other academic fields of studies to generate empirical data in order to provide answers to research questions. Socio-legal research can be qualitative or quantitative based on a problem, policy or law reform.³²⁷

Socio-legal research looks beyond legal doctrine to understand law as a social phenomenon or type of social experience and existential reality. Thus, socio-legal scholars confidently classify the socio-legal research methodology as different from ‘law in books’ but as valuable as ‘law in action’.³²⁸ The Socio-legal research approach was first used in the area of criminology, but presently it has been used to conduct research in all fields of law.³²⁹

Observably, the socio-legal research can unravel the unexposed and the unquestioned previous political nature of law, uncovering whether laws have fulfilled their intended purpose; help in promoting law reform proposals by bringing law and the goals of public

³²³ VV. Palmer, ‘From Leretholi to Lando: Some Experts of Comparative Law Methodology’ [2005] *American Journal Comparative Law*, **53**: 261

³²⁴ Ibid

³²⁵ Ashish Kumar Singhal and Ikramuddin Malik, ‘Doctrinal and Socio-legal Methods of Research: Merits and Demerits’ [2012] *Educational Research Journal* Vol.2 (7), 252-256

³²⁶ Ashish Kumar Singhal and Ikramuddin Malik, ‘Doctrinal and Socio-legal Methods of Research: Merits and Demerits’ [2012] *Educational Research Journal* Vol.2 (7), 252-256

³²⁷ Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2007)

³²⁸ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 35

³²⁹ Ibid

policy; and ultimately showing how law effectively operates in practice by elucidating the experiences of various groups in affiliation with the law.³³⁰

Socio-legal or empirical legal research methodology embraces interdisciplinary research areas concerned with law as a social institution and reality, with the law serving legal processes, services on economic, social services and political factors in the society.³³¹ As a result of its dynamism, the socio-legal research methodology is diversified and encompasses a wide range of theoretical perspectives, using social research methods, like interviews, observations or questionnaires.³³² Empirical research in law uses both qualitative and quantitative forms of data collection and analysis.³³³

Consequently, socio-legal or empirical legal researchers may engage in qualitative or quantitative research methods or both, depending on the research design and the topic under research enquiry.³³⁴ The analysis of the empirical legal research includes the following:

- ❖ *Interviews*
- ❖ *Observation, instances of courtroom interactions or lawyer-client exchanges*
- ❖ *Surveys (electronic or face-to-face)*
- ❖ *Case studies*
- ❖ *Data collection (primary or secondary sources materials)*
- ❖ *Economic analysis*
- ❖ *Examinations of court records and transcripts.*³³⁵

All of the above factors were considered and discussed with the supervisor at the early stage of this research. Due to the given nature of the research, enough materials of analysis are available and used. In as far as this research is predominately doctrinal, there is the sociological dimension. This includes the visit of the researcher to the United Nations Institute for Disarmament Research (UNIDIR) for the participation in an international symposium on 'Understanding the Risk of Nuclear weapons' as part of research visit. Consequently, this thesis is primarily a legal research as it centres on international law encapsulated in international treaties. The various international treaties on nuclear weapons as well as the 1969 Vienna Convention on the Law of Treaties together with applicable international humanitarian law analysed in this thesis makes the socio-legal methodology not fit into the research, hence, is not being adopted as this research methodology.

³³⁰ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 35

³³¹ WJ Goode and PK Hatt, *Methods in Social Research*, (McGraw-Hill Book Company, 1986)

³³² Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013) 56

³³³ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 35

³³⁴ Ashish Kumar Singhal and Ikramuddin Malik, 'Doctrinal and Socio-legal Methods of Research: Merits and Demerits' [2012] *Educational Research Journal* Vol.2 (7), 252-256

³³⁵ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 35

2.7.4 Qualitative Legal Research Methodology

Qualitative legal research is understood as the research strategy that emphasises on and interpretative analysis rather than quantification in the collection and analysis of data. It expresses predominantly an inductive approach to the relationship between theory and research enquiry with much emphasis laid on the generation of theories. Evidently, qualitative research does not accept the procedures and norms of the natural scientific model. In preference, qualitative research focuses on the procedure by which researchers interpret their social world and it equally concerns with the view of social reality.³³⁶

Consequently, qualitative research recognises there is no single reality instead; reality is variable, situational and personal. For instance, qualitative interviews are less structured than the quantitative methodology, consisting of an exchange of ideas between the interviewer (the researcher) and the interviewee; not for the purposes of quantifying the subject matter under research but for eliciting new information, insight, and practical awareness of the topic under research investigation.³³⁷ The method this research adopt is therefore qualitative.

This research solely adopt the qualitative legal methodology by its approach of the black letter law embedded in the doctrinal legal method. By its interpretative analysis, this thesis addresses the core international treaties on nuclear weapons alongside with applicable international humanitarian law and all relevant legal discourse associated with nuclear disarmament. This therefore underscores the rationale why this research is purely qualitative.

2.7.5 Quantitative Legal Research Methodology

Quantitative legal research is construed as a method of research that emphatically stresses quantification in the collection and analysis of legal data. It is characterised by deductive approach of the nexus between theory and research with predominant concern on the veracity of theories. Furthermore, unlike the qualitative research, quantitative research combines the practices of the natural scientific model. This implies that it maintains the control of the research to reduce the number of variables affecting the results, exact measurement and the precision; it is also the certainty and necessity of repeating the finding or experiment with exact outcomes and the testing of the hypothesis by statistical data or means.³³⁸

More often than not, quantitative research uses the devices of surveys and questionnaires to collect necessary data. Collection of quantitative research data includes closed questions, resulting in easy statistical Summaries, or the open question approach which allow a very lengthy and productive individual response.³³⁹ At the preliminary stage of this research, the quantitative methodology was considered

³³⁶ Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing Ltd, 2011) 35

³³⁷ Ibid

³³⁸ Ashish Kumar Singhal and Ikramuddin Malik, 'Doctrinal and Socio-legal Methods of Research: Merits and Demerits' [2012] *Educational Research Journal* Vol.2 (7), 252-256

³³⁹ Ibid

but as the research progressed, the researcher horizon was broadened thereby deeming the quantitative legal research methodology not relevant to be used or adopted.

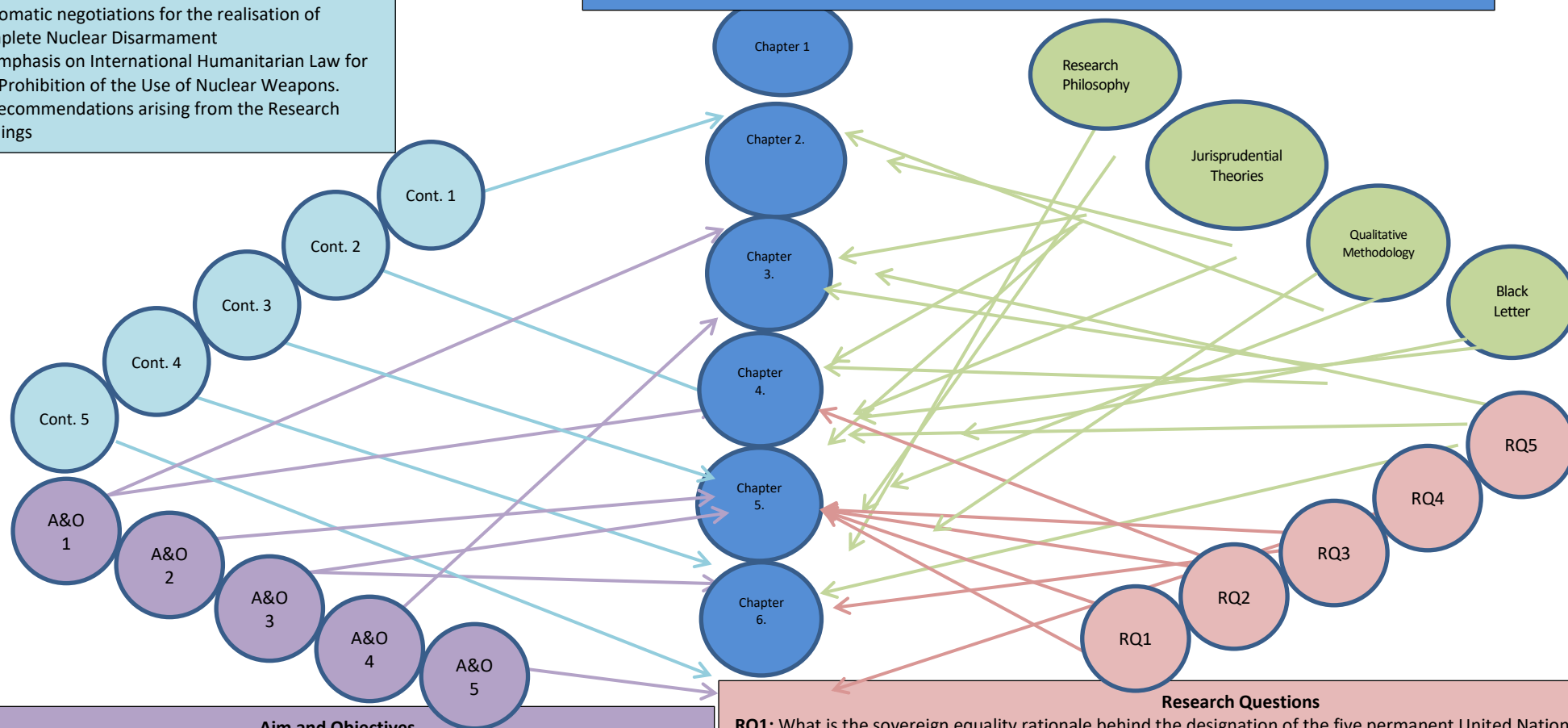
The quantitative legal research methodology is not adopted in this thesis. This is mainly because of the absence of the basic elements of quantitative methodology such as the use of survey, questionnaires and the quantification of collection of legal data this research does not utilise. Available legal data in terms of earliest and contemporaneous legal instruments on nuclear weapons disarmament and the existing legal framework on nuclear disarmament supercede the need to use the quantitative legal research methodology in this research.

Contributions

1. Legal and Academic Contribution to the Campaign for Nuclear Weapons Disarmament.
2. The Jurisprudential Rationale of the Theories of Natural Law and Legal Positivism for Nuclear Disarmament
3. The Nexus between International Law, International Politics, Multilateral Treaties and Diplomatic negotiations for the realisation of complete Nuclear Disarmament
4. Emphasis on International Humanitarian Law for the Prohibition of the Use of Nuclear Weapons.
5. Recommendations arising from the Research Findings

Chapters

- Chapter 1:** Introduction and Background of Thesis
Chapter 2: Research Philosophy, Methodology, and Literature Review
Chapter 3: The Nuclear Arms Race: Antecedents, Historical Overview, and the Legal Imperatives for Disarmament
Chapter 4: Political Implications and Diplomatic Influences on the Legal Framework for Nuclear Disarmament
Chapter 5: Research Findings and Recommendations
Chapter 6: Research Summary and Conclusion



Aim and Objectives

Aim: To stand the test of time as a consequential legal and academic contribution to the campaign for nuclear weapons disarmament

A&O1: To examine the criticism against nuclear weapons disarmament that disarmament would undermine deterrence and would negate the current nuclear peace the world is experiencing.

A&O2: To analytically use the instrumentality of International Law to respond to the clarion call for urgent and sustainable peace in the world posed by the horrifically destructive forceful of nuclear weapons

A&O3: To critically analyse and assess the multilateral and international legal frameworks on nuclear weapon, including changes in organisational and international approach, nuclear security approach, summit and conferences on nuclear weapons non-proliferation.

A&O4: To raise awareness amongst the Nuclear Weapons States (NWS) and to spur them to re-concretise their negotiations in achieving nuclear disarmament.

Research Questions

RQ1: What is the sovereign equality rationale behind the designation of the five permanent United Nations Security membership of China, France, Russia, United Kingdom and the United States as Nuclear Weapon States (NWS) in contradistinction to the rest of the world as Non-Nuclear Weapon States (NNWS)?

RQ2: Conceptually, would it be virtually possible to use nuclear weapons, bearing in mind their inherent destructiveness without violating the laws of Arms Conflicts also known as the Law of War or International Humanitarian Law (IHL)?

RQ3: How effective are the strategic enforcement mechanisms for credible verification and substance compliance on the non-proliferation of nuclear weapons and gradual reduction of nuclear waeheads?

RQ4: Is the doctrine of nuclear deterrence which is the rationale used by the Nuclear Weapon States (NWS) to justify their possession and maintenance of nuclear armamments and nuclear warheads in the midst of legally binding effects of the various Nuclear Weapon Free Zones (NWFZs) recognised by the United nations and the Non-proliferation Treaty (NPT) a military illusion or a political solution to the discouse of nuclear disarmament?

2.8 Literature Review

The central focus of the literature review of this research is to critically explore areas of controversies of secondary sources materials that discuss, explain, interpret and analyse, what the law is, and what the law ought to be on nuclear weapons disarmament. Secondary sources refer to any background material that provides a summary or overview of an area of law in text or encyclopaedic form and with the view of identifying the gaps in the course of this research.

Secondary sources are analogous to legal encyclopaedias, dictionaries, academic textbooks, scholarly journal articles; they provide an overview of a particular area of law by pulling together statutes, legal principles, case law, interpreting, and critiquing them. In general, secondary sources are not themselves the law and should not be cited as the law. They are helpful ways to get a quick overview of an area of law and to find primary authority such as cases and statutes that constitute the law.³⁴⁰ In the case of international law, Article 38 of the International Court of Justice include secondary source of persuasive authority which the ICJ may consults.

Following the background of secondary sources, the researcher has read and espoused the significance of international treaties and multilateral agreements abrogating nuclear proliferation and re-armament that constitute the research primary sources, thereby identifying a gap where new and viable contributions could be inputted. However, “a researcher cannot perform significant research without first understating the literature in the field.”³⁴¹ In the light of this truism, this literature review in its entirety is underpinned by contemporary research on international legal and political discourse on nuclear disarmament.

The black letter law approach embedded in doctrinal legal research method under qualitative methodology is being used to address the gaps in the literature. This methodological approach is used to analyse and examine key sections in this research such as: the doctrine of nuclear deterrence, and the 1996 International Court of Justice Advisory Opinion on the legality of the threat or use of nuclear weapons. Furthermore, the 1969 Vienna Convention on the Law of Treaties, the newly emerged Treaty on the Prohibition of Nuclear Weapons and the Non-Proliferation of Nuclear Weapons Treaty together with the five existing Nuclear Weapon Free Zone Treaties and the two Single States Free zone Treaties are analysed with black letter law approach.

Nuclear weapons have their place among the sought-after technology with nations that seek to be ultimately secured with nuclear ambition. The global campaign against nuclear weapons strongly posits that nuclear weapons in territorial battles are completely unethical, with devastating environmental and humanitarian impacts, physical damage and high cost of maintenance. Antithetically, the proponents of nuclear weapons opine that nuclear weapons are sources of war deterrent, strategic

³⁴⁰ Georgetown University Law Library Legal Definitions
http://www.ll.georgetown.edu/tutorials/definitions/secondary_source.html accessed 14 April 2014

³⁴¹ David N. Boote and Penny Beile, ‘Scholars Before Researchers: On the Centrality of Dissertation Literature Review in Research Preparation’ [2005] AERA 34(6) 3 -15

global defence and power supply. These parallel views constitute the framework of this literature review.

However, the issues discussed have no clear themes but the literature review structure adopted a wholistic approach haven cut across the sceptrum of nuclear disarmament debate. It is for this reason the literatures cannot be categorised under any specific theme but designed into the threat of nuclear weapons, the legal framework on nuclear disarmament and the morality between the law and the use of nuclear weapons. These are captured in the two major divisions of review of selected academic journal articles and review of selected academic textbooks that constitute the literature review.

2.8.1 Review of Selected Academic Journal Articles

Literature review of scholarly journal articles on nuclear weapons disarmament and non-proliferation is an imperative for this research. The analyses of various academic articles suggest persistent relevancy and accuracy contemporaneous with the discourse of nuclear weapons and disarmament in the light of international law. The future of the global nuclear landscape has received intense scrutiny since the dawn of the nuclear epoch and the intellectual contributions of scholarly journal articles have awakened the academic community, professional experts, world leaders and non-State actors to the pace and timing of non-proliferation and disarmament which has been consistently slower than was envisioned. Scholarly journal articles have exhibit the tone of consistency of both the convergent legal and divergent political positions on issues arising from nuclear disarmament.

‘Nuclear Power’s Disarmament Obligation under Treaty on the Non-proliferation of Nuclear Weapons and the Comprehensive Nuclear Test Ban Treaty: Interactions between Soft Law and Hard Law’³⁴² – Alessandra Pietrobon

This article pinpoints some salient issues in international law as it pertains to its subject matter. The author articulates how nuclear testing started and continues to generate serious concern for international security and safety of the environment.³⁴³ The means of international law agreements to put an end to nuclear testing by the international community has not been enforced, owing to the non-ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT) by the United States and some other countries.³⁴⁴ The researcher views this as not only a gap in the law but also a major challenge in the disarmament legal framework. Concerning the law, there is no way a State can be compelled to ratify a treaty.

In the view of the researcher, there should be an international legal framework underpinning the regulation of nuclear testing. As opines by Pietrobon, a necessary connection can be created between the ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT) and the disarmament obligation codified in Article VI of the Treaty of the Non-proliferation of Nuclear Weapons (NPT). Furthermore, this connection

³⁴² David N. Boote and Penny Beile, ‘Scholars Before Researchers: On the Centrality of Dissertation Literature Review in Research Preparation’ [2005] AERA 34(6) 3 -15

³⁴³ Ibid, p 169

³⁴⁴ Alessandra Pietrobon, ‘Nuclear Powers’ Disarmament Obligation under Treaty on the Non-proliferation of Nuclear Weapons and the Comprehensive Nuclear Test Ban Treaty: Interactions between Soft Law and Hard Law’ [2014] LJIL 27(1), 169 - 188

embedded in some soft law, interfaces with hard law to provide consequential legal effect in influencing the stands of the Nuclear Weapon States (NWS) that yet to ratify the CTBT.³⁴⁵ Soft law is a term that encompasses soft rules that are included in treaties, non-binding, voluntary resolutions, recommendations, codes of conduct and standards.

The opinion conveyed in this article lends credence to the concept of multilateralism and ensuring international treaties as the key rule to the nuclear disarmament. The article clearly explains the antecedents of nuclear testing in the atmosphere, outer space and underwater in the light of the Partial Nuclear Ban Treaty (PTBT) that resonates in various nuclear weapon free zones treaties and consolidated in the Comprehensive Nuclear Test Ban Treaty (CTBT).

As discussed by the author, the CTBT is considered comprehensive because it prohibits all kinds of explosive nuclear device tests including underground detonations.³⁴⁶ The CTBT aims to avoid every nuclear explosive test undertaken either for military or civilian purposes' under its control or jurisdiction.³⁴⁷

The author also points that this CTBT provision is quite articulate and legally resounding but it cannot be enforced due to the non-ratification by some specific States (China, Egypt, India, Iran Israel North Korea, Pakistan and the United States) and as such, the researcher cannot rely on it to buttress any substantive analysis in the course of this research. In order for the CTBT to enter into force, it needs the ratification of at least 44 States as specifically stipulated in its Annex 2.³⁴⁸ Therefore, if the threshold is not reached it, it legally invalidates all other States effort towards the axiomatically acclaimed comprehensive ban of nuclear test. This awareness exposes the existing legal limitation associated with this treaty which in turns to be considered as limitation to this research.

In comparison with the CTBT, this Pietrobon's article identifies some legal characteristics of the Non-proliferation of Nuclear Weapons Treaty (NPT). *Ab initio* (from the beginning), the NPT was not originally intended to be perpetually operational. Its Article X(2) makes the provision for a conference to be held after twenty-five years the treaty entered into force, to determine whether the treaty is to continue *ad infinitum* (to infinity) or to be extended for an additional or specific period.³⁴⁹ The first NPT Special Extension and Review Conference was held in May 11 1995 and decision was unanimously taken in favour of indefinite and unlimited extension in conformity with the original terms and conditionality of the treaty.³⁵⁰

³⁴⁵ Alessandra Pietrobon, 'Nuclear Powers' Disarmament Obligation under Treaty on the Non-proliferation of Nuclear Weapons and the Comprehensive Nuclear Test Ban Treaty: Interactions between Soft Law and Hard Law' [2014] LJIL 27(1), 169 - 188

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³⁴⁶ Ibid, p 172

³⁴⁷ The Comprehensive Nuclear Test Ban Treaty (CTBT) September 10 1996, art I

³⁴⁸ Ibid, Annex 2

³⁴⁹ The Treaty on the Non-proliferation of Nuclear Weapons (NPT), July 1 1968, artX (2)

³⁵⁰ Alessandra Pietrobon, 'Nuclear Powers' Disarmament Obligation under Treaty on the Non-proliferation of Nuclear Weapons and the Comprehensive Nuclear Test Ban Treaty: Interactions between Soft Law and Hard Law' [2014] LJIL 27(1), 169 - 188

Subsequently, every five years, the NPT Review Conference convene to examine the milestone of the treaty and in 2000, the Conference met and agreed by consensus, a-13-practical steps measures considered as progressive and systematic efforts in implementing Article IV.³⁵¹ Upon critical studies of the Non-proliferation Treaty (NPT) by the researcher through this scholarly article, the NTP does not outlaw the existence of nuclear weapons; rather it dichotomises States into Nuclear Weapon States (NWS) and Non-nuclear Weapon States (NNW)

As the author points, in spite of the landmark significance of the Non-Proliferation Treaty and its Review Conferences that led to the 13 Practical Steps to meet disarmament commitments, the Nuclear Weapon Non-proliferation Treaty is fraught with vague obligations on all party signatories to advance to the common front of total nuclear disarmament. Article VI of the NPT which says:

*“Each of the Parties to the treaty undertakes to pursue negotiation in good faith on effective measures relating to cessation of nuclear arms at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control”*³⁵²

The above provision does not impose or strictly requires all signatories of the treaty to embark on immediate disarmament. The author rather fails to poin that this provision is a concession on all party States “to negotiate in good faith”³⁵³ and this is inherently laden with divergent interpretations and can also be misconstrued as vague. The researcher considers Article VI of the NPT as the basis that constitutes the criticism that the Nuclear Weapon States NWS have failed to meet their formal and specific obligation on disarmament. The criticism is so strong such that the failure of the NWS to disarm their arsenals of nuclear weapons, most especially in the era after the Cold War has provoked some Non-Nuclear Weapon States (NNWS) such as North Korea and Iran to justify their withdrawal from the Non-proliferation Treaty and acquire their own nuclear weapon armament.

In the same vein of its criticism, the researcher deciphers that many developing nations over the years have viewed the NPT as a conspiracy of the nuclear ‘haves’ to subjugate the nuclear ‘have-not’. This assertion is predicated on the disappointment with the insignificant progress on nuclear disarmament, where the NWS still possess up to 22,000 warheads and among themselves with the reluctance to eliminate them without any proscriptive sanction contained in the NPT.

However, a major gap on this Pietrobon’s article and other supplementary sources on the effectiveness and fairness of the NPT is the provision of Article IV, which encourages party States to develop nuclear energy for peaceful purposes. Factually, the technology for producing nuclear energy is the same as the technology for

³⁵¹ Ibid, p 174

³⁵² Treaty on the Non-Proliferation on Nuclear Weapons, July 1, 1968, art VI

³⁵³ Ibid

producing nuclear weapons. The conversion from peaceful to non-peaceful use only entails enriching the uranium or simply reprocessing the fuel rods into plutonium.³⁵⁴

With the awareness of this technological capability, the NPT negotiators relied on the requirement of the recipients of nuclear technology to allow international inspection such as the International Atomic Energy Agency (IAEA) to monitor nuclear facilities to ensure compliance. But this has been under strain after the 1991 Gulf War, when the United Nations (UN) mandated inspector team discovered that Iraq had clandestinely worked on the development of nuclear weapons in undeclared facilities, located adjacent to the facilities that had been declared to the International Atomic Energy (IAEA) under the Comprehensive Safeguards Agreement (CSA).³⁵⁵

Beyond its criticism, the researcher understands the indisputable fact that the Treaty on the Non-proliferation of Nuclear Weapons is the cornerstone of the global non-proliferation architecture. As a normative legal framework on nuclear disarmament, its universalization directly requires State actors to conclude all protocols as a condition for gaining nuclear co-operation. Legal possibilities and limitations are examined both directly and indirectly in ensuring absolute non-proliferation of nuclear materials for attaining comprehensive nuclear disarmament.³⁵⁶

The Researcher Reflection on Pietrobon's Article

Upon the review of this article, it becomes clearer to the researcher that complete nuclear disarmament is more an idealistic goal than realistic one. As present state practice indicates, the process leading to nuclear disarmament is procedural and slowly progressive. The NWS are not willing to do away with their nuclear armaments and their "continuity and genuineness"³⁵⁷ in the negotiation towards disarmament is mere an affirmation of soft law. Understandably, ratification of the CTBT by the NWS would be most valuable in the course of disarmament. A unilateral or self-retrained moratorium by a State cannot be deemed as equivalent to the CTBT requirement.³⁵⁸

'Recent Developments in International Law Regarding Nuclear Weapons'³⁵⁹ – Daniel H. Joyner

The researcher deems it necessary to select this academic journal article for review because its author examines some fundamental developments in State policy and international law concerning nuclear weapons in the early years of the 21st century.

³⁵⁴ Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

³⁵⁵ Ibid

³⁵⁶ Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

³⁵⁷ Alessandra Pietrobon, 'Nuclear Powers' Disarmament Obligation under Treaty on the Non-proliferation of Nuclear Weapons and the Comprehensive Nuclear Test Ban Treaty: Interactions between Soft Law and Hard Law' [2014] *LJIL* 27(1), 169 - 188

³⁵⁸ Ibid

³⁵⁹ Daniel H. Joyner, 'Recent development in International Law regarding Nuclear Weapons' [2011] *ICLQ* 60(1), 209 -224

According to Joyner, by virtue of State policy many States especially the NWS and other nuclear weapon-possession governments have adopted conflicting interpretations of the content of principles underscoring the 1968 NPT, which is the fundamental milestone of the nuclear non-proliferation legal regime.³⁶⁰ The elucidation of the veritable potency of the NPT by the author of this article has broadened the horizon of the researcher concerning erroneous legal interpretations associated with some of the provisions of this treaty.

In the review of the proceeding article by Alessandra Pietrobon, the researcher adopted a more critical than neutrally analytical approach about the NPT from to the individual and collective failures of the NWS to comply with their disarmament obligations in Articles VI. However, Joyner, opines that the NPT “has been distorted in favour of a disproportionate prioritisation of non-proliferation principles and an unwarranted under-prioritisation of the peaceful use of disarmament principles.”³⁶¹

Consequently, it is an obvious necessity that policies and interpretations of treaty such as the NPT can be meaningfully acceptable as pattern of continuity and change by the actions of the NWS. This is evidenced as pointed out by the stands of the United States of America on Nuclear Posture Review (NPR). On 6 April 2010, the American government released a comprehensive policy statement regarding nuclear weapons that formalises the US disarmament posture in view of the existing US nuclear armaments.

Joyner’s underlying point of this policy statement indicates that without prejudice to the jeopardy of the American traditional deterrence and reaffirmation, the US government is now able to review its nuclear weapons policies for the betterment of its most pressing security challenges.³⁶² Indicatively, this policy recognises that the previous US government showed reluctance in acknowledging between nuclear disarmament and nuclear non-proliferation.³⁶³

However, the researcher perceives the Nuclear Posture Review (NPR) as an autonomous U.S. policy at variance with Article VI of the Non-proliferation Treaty (NPT) that emphasises the obligation of all signatories to make progress towards disarmament. Arguably, the American government ought to assert itself in a more formidable position to persuade other NPT members in adopting the procedures needed to strengthen the nuclear weapons non-proliferation regime.

Also, a controversial issue associated with the America NPR is that it negates disarmament advocacy, as it reaffirms the traditional deterrence of the U.S. government’s defence strategy. The NPR acknowledges U.S. nuclear weapons as a

³⁶⁰ Ibid

³⁶¹ Daniel H. Joyner, ‘Recent development in International Law regarding Nuclear Weapons’ [2011] ICLQ 60(1), 209 -224

³⁶² U.S. Department of Defence, Nuclear Posture Review (background briefing on nuclear stockpile [May 3, 2010], the Nuclear Posture Review (NPR) is a legislative mandate review that establishes U.S. nuclear policy, strategy, capabilities and force posture for the next five to ten year < www.defense.gov/News/Special-Report/NPR > accessed 19 November 2015

³⁶³ Daniel H. Joyner, ‘Recent development in International Law regarding Nuclear Weapons’ [2011] ICLQ 60(1), 209 -224

fundamental tool of its nuclear commitment not to use or threaten Non-Nuclear Weapon States (NNWS) with their nuclear weapons. Nevertheless, the commitments actually expressed in the NPR policy statement report are very puzzling and enigmatic. In politics and in theory, the U.S. and NWS will organise and participate in all manner of conferences and deliberations on nuclear disarmament. In practice, they will adopt the traditional military doctrine of deterrence thereby making all efforts on nuclear weapons disarmament a matter of security and political precedence rather than legal compliance.

Importantly, the analysis and interpretations of the view of the author in this article has shaped the understanding of the researcher in terms of the legal basis for the NPT and the policies of the NWS that are either convergent or divergent to the NPT regime. According to the author, a number of these policies have “unlawfully prejudiced the legitimate legal interest of NPT Non-nuclear Weapon States (NNWS), pursuant to the NPT’s grand bargain.”³⁶⁴

**‘Pre-empting Proliferation: International Law, Morality and Nuclear Weapons’³⁶⁵
– Michael J. Glennon**

This article examines the possibility of nuclear weapons proliferation against the background of international law and an argument centre on morality. The author acknowledges the view of Robert McNamara that nuclear weapons “are totally useless – except only to deter one’s opponent from using them.”³⁶⁶ The extension of this view implies that the ghastliness of nuclear weapons actually promote their stability; not only to deter nuclear armed States from attacking each other but also to forestall conventional weapons attacks, fearing the possibility of nuclear weapons reaction. This analytical assertion by this author is the rationale behind the review of this article.

Prior to the review of the literatures for this research, the researcher hitherto had misgivings about the doctrine of nuclear deterrence. Indisputably, deterrence has played a key role in the existence of nuclear weapons in the world, but the doctrine is certainly more dynamic in its implication. In this article, Glennon pinpoints the correlation between nuclear weapons and the existing peace amongst the great powers; for more than 65 years, the longest since the Second World War there have been a sort of relative peace devoid of arms confrontations between the great powers.³⁶⁷ However, the Glennon equally explains the risk attached to deterrence regardless of whatever stability the possession of nuclear weapons might have provided. The logic of nuclear deterrence presupposes nuclear proliferation. The danger is, the more States that acquire nuclear weapons, the more chances are there that these weapons can be used.³⁶⁸ Even as the dangers of nuclear weapons

³⁶⁴ Daniel H. Joyner, ‘Recent development in International Law regarding Nuclear Weapons’ [2011] ICLQ 60(1), 209 -224

³⁶⁵ Michael J. Glennon, ‘Pre-empting Proliferation: International Law, Morality and Nuclear Weapons’ [2013] EJIL 24(1), 109 - 127

³⁶⁶ Ibid

³⁶⁷ Michael J. Glennon, ‘Pre-empting Proliferation: International Law, Morality and Nuclear Weapons’ [2013] EJIL 24(1) 109 - 127

³⁶⁸ Ibid

deterrence are glaring, implying that no policy-maker would risk annihilation by approving their use.³⁶⁹

From Glennon's article, the researcher deduces that nuclear weapons proliferation against international law and moral arguments against their use poses a threat to the international community. Ironically, legal treaties on nuclear disarmament do not have sufficient plausibility and consistent explanation for moral arguments. This is why the super powers especially NWS seems to be imposing their political influences on the rest of the world in the disarmament discourse. In the words of the author of this article, "law is a species of cooperation and cooperation occurs only under specific conditions."³⁷⁰

This explains why the provisions of the various nuclear weapon treaties and the resolutions of the United Nations as well as the 1996 advisory opinion of the International Court of Justice (ICJ) on the legality or otherwise of the use of nuclear weapons have not acquired the degree necessary to generate consistent multilateral cooperation in enforcing complete disarmament.

'Legality of the Threat or use of Nuclear Weapons'³⁷¹ – Nicholas Grief

This article dwells on the historic Advisory Opinion of 8 July 1996 of the International Court of Justice (ICJ) on the legality of the threat or use of nuclear weapons in response to the United Nations General Assembly (UNGA) question: "Is the threat or use of nuclear weapons in any circumstances permitted under international law?"³⁷² Prior to this UNGA question, the World Health Organisation (WHO) had hitherto requested the ICJ opinion on this same question, but the court declined on the ground that the WHO question is not in conformity within WHO scope of activities as enshrined in Article 92(2) of the United Nation Charter.³⁷³ Politically, the initial WHO request necessarily paved the way for the United Nations General Assembly (UNGA) question.

Grief's argues that the question of the UN General Assembly seeking the advisory opinion of the International Court of Justice (ICJ) on the use of nuclear weapons had political motivation. He further argues that the political dimension did not contravene its legal character. Consequently, the Court acknowledged that in order to appropriate and correctly select applicable law, it is basically important to recognise the distinctive characteristics of nuclear weapons, especially their destructiveness, their capacity to inflict untold human suffering and the attendant damage to future generations.³⁷⁴

Based on the combination of legal and political elements embedded in this nuclear weapons disarmament research, the researcher considers it expedient to explore this article in its entirety. A striking point here is, the ICJ observed that with regard to

³⁶⁹ Michael J. Glennon, 'Pre-empting Proliferation: International Law, Morality and Nuclear Weapons' [2013] EJIL 24(1) 109 - 127

³⁷⁰ Ibid

³⁷¹ Nicholas Grief, 'Legality of the Threat or Use of Nuclear Weapons' [1997] ICLQ (46(3), 681 - 688

³⁷² United Nations General Assembly (UNGA) Resolution 49/75 K (December 15 1994), Requesting for Advisory Opinion on the Legality of the Threat or Use of Nuclear weapons, transmitted to the International Court of Justice (ICJ)

³⁷³ Nicholas Grief, 'Legality of the Threat or Use of Nuclear Weapons' [1997] ICLQ (46(3), 681 - 688

³⁷⁴ Nicholas Grief, 'Legality of the Threat or Use of Nuclear Weapons' [1997] ICLQ (46(3), 681 - 688

nuclear weapons, there is no treaty on general prohibition.³⁷⁵ However, there are multilateral treaties dealing with the acquisition, manufacture, possession, deployment and testing of nuclear weapons. These treaties only indicate the international community unflinching concern for the threat of nuclear weapons; they not constitute a general prohibition.

Meanwhile, the Court expressed that nuclear weapons are subsumable under international law regardless of their invention before the emergence of most humanitarian norms and principles.³⁷⁶ The fundamental principles of distinction of international humanitarian law that confirm this truism are: State must never make civilians the target of attacks by using weapons that cannot delineate between civilian and military targets. And it is prohibited to inflict unnecessary suffering on combatants; consequently, it is therefore unlawful to use weapons that breach these principles.³⁷⁷

Furthermore, Grief clearly highlights both the legal and political importance of the ICJ Advisory Opinion. The resolutions underlying the requests were the consequence of the adoption of the draft of the Non-Aligned Movement (NAM) duly supported by the World Court Project.³⁷⁸ Notably, the ICJ Advisory Opinion is the first time in history an international judicial proceeding has considered the legal status of the existence of nuclear weapons and declared that they are subject to the principles of the Charter of the United Nations and the applicable international law of Armed Conflict.³⁷⁹

Explicitly, the ICJ unanimously held that: “a threat of the use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4, of the United Nations Charter and fails to meet all requirement of Article 51 is unlawful.”³⁸⁰ In the same vein, the threat or use of nuclear weapons must be in conformity with the principles of applicable international humanitarian law with specific obligations under international and multilateral treaties which out rightly deals with undertakings relating to nuclear weapons.³⁸¹ On a political position, the ICJ unanimous decision that there is an obligation to negotiate disarmament still counts a clear-cut victory and support for the Non-Aligned Movement (NAM).³⁸²

Critically, the researcher observes that the ICJ in its Advisory Opinion did not address the fundamental issue of nuclear deterrence theory unanimously. For example, Judge Ferrari Bravo opined that the deterrence theory cannot amount to a customary rule. In a similar view, Judge Shi expressed the view that the deterrence policy should be the

³⁷⁵ Ibid

³⁷⁶ Ibid

³⁷⁷ Ibid

³⁷⁸ World Court Project/International Law, the International Association of Lawyers Against Nuclear Arms (IALANA) that launched the World Court Project in Geneva May 1992 in conjunction with the Lawyers Committee on Nuclear Policy (LCNP), the International Peace Bureaus (IPB) and the International Physician for the Prevention of Nuclear War (IPPNW) led the World Court Project, a world-wide campaign that resulted in an historic advisory opinion from the International Court of Justice (ICJ) www.lcnp.org/wcourt/ accessed 24 November 2015

³⁷⁹ Nicholas Grief, ‘Legality of the Threat or Use of Nuclear Weapons’ [1997] ICLQ 46(3), 681 – 688

³⁸⁰ Richard A. Falk, ‘Nuclear Weapons, International Law and the World Court: A Historic Encounter’ [1997] AJIL 91 (1), 64 -75

³⁸¹ Nicholas Grief, ‘Legality of the Threat or Use of Nuclear Weapons’ [1997] ICLQ 46(3), 681 - 688

³⁸² Ibid, p 686

object of regulation by law, not *vice versa*, also adding that the unwarranted emphasis on the practice of the NWS and their allies which embrace the protection of the nuclear umbrella breach the principle of sovereign equality. And Judge Weeramantry stated, every nation is specially affected by nuclear weapons.³⁸³

The above positions of the ICJ judges on deterrence imply that deterrence in effect is not a topic of legal consideration but a political pre-emptive and defensive measure falling aside legal regulation by States. Still on the doctrine of deterrence, the researcher is of the submission that the ICJ should have been more forthcoming in its dictum in order to negate the argument founded on the logic of nuclear deterrence

‘Arms Control and Disarmament’³⁸⁴ – J.C. Woodliffe

The of lack of mutual understanding and trust driven by the absence of political will between the East and the West relations after the post-war period was responsible for the retarded progress in the pursuit of arms control and disarmament. This article argues that a turning point may have been attained and reached through the main issues of verification regardless of the impediments associated with the arms control and disarmament negotiations.

In the view of the author, the traditional global arms control agreements solely relied on “National Technical Means of verification” (NTMs) to supervise compliance with their provisions by contracting States. The NTMs, which are subsumed under national regulation, consist of photographic reconnaissance satellites, radar operated from sea and ground-based systems and seismographic monitoring of nuclear weapons testings and explosions.³⁸⁵ Every State party has the undertaking not to use NTMs in an approach contradictory to the generally recognised principles of international law and in a manner inconsistent with other nations.³⁸⁶

Practically, international means of verification predicated on inter-state agreement have been said to be only “reluctantly and exceptionally accepted by States outside arms control and disarmament contexts.”³⁸⁷ This by implication means there is an important element of consent given on-site inspection to be conducted either by another State or by an international agency such as the International Atomic Energy Agency (IAEA). The shortcoming arising from this includes the impossibility to operate without the full cooperation of the State on whose territory the inspection is being carried out.

As a consequence of reviewing this article, the researcher discovered the Arms Control and Disarmament (Privileges and Immunities) Act of 1988, an Act of parliament of the United Kingdom with the provisions of conferring privileges and immunities on observers, inspectors and auxiliary personnel exercising functions

³⁸³ Ibid

³⁸⁴ J.C. Woodliffe, ‘Arms Control and Disarmament’ [1988] ICLQ 37(4), 988 - 1002

³⁸⁵ J.C. Woodliffe, ‘Arms Control and Disarmament’ [1988] ICLQ 37(4), 988 - 1002

³⁸⁶ Ibid

³⁸⁷ Ibid

under international agreements or arrangements for furthering arms control and disarmament is a veritable legal instrument in nuclear disarmament discourse.³⁸⁸

However, according to Woodliffe, the arms control and disarmament agreement is devoid of multilateralism thereby making it not universalistic. For example, The Limited Test Ban Treaty (LTBT) of August 5 1963 was a trilateral agreement (tripartite pact) between the U.S., U.S.S.R., and the U.K. banning all nuclear explosions except for underground tests.³⁸⁹ The United States and many nuclear weapon States currently practice self-imposed moratorium on any underground nuclear tests, while India and Pakistan both conducted such test in 1998.³⁹⁰

Further to the LTBT, the United Nations General Assembly in 1996 adopted the Comprehensive Test Ban Treaty (CTBT) that prohibits all States from conducting any nuclear tests regardless of the purposes of nuclear development or otherwise as well as established a surveillance system of seismic incidents and on-site inspections.³⁹¹ It is worth recalling that the CTBT was signed by the United States in 1996, but the U.S. Senate vote of 51 – 48 in 1999 failed to achieve the required consent of 2/3rd majority.³⁹²

Arguably, the treaty on the Limitation of Anti-Ballistic Missile System (ABM Treaty) of May 26 1972, which was amended in 1973, is one of the most important nuclear arms control agreement. The treaty which is between the United States and the former Soviet Union provides that each State could have only one very restricted ABM deployment area, thereby precluding either State from developing a nationwide ABM defence. Logically, since each party would have the ability to retaliate against the other party, the ABM Treaty was fractioned to make it unlikely that both parties would resort to a nuclear first strike.³⁹³

This was the reason why President George W. Bush announced in December 2001 that the United States was withdrawing from the ABM Treaty, to enable the U.S. have the freedom to develop and deploy a national missile defence system capable of stopping ballistic missiles that might be launched by “rogue” States like the North Korea.³⁹⁴

Various types of agreements such as the Strategic Arms Limitations Talks (SALT) agreement which led to the ABM Treaty, the Strategic Arms Reduction Talks (START) agreement, and the Intermediate Nuclear Forces (INF) Treaty, were all designed to

³⁸⁸ Arms Control and Disarmament (Privileges and Immunities) Act 1988 of the Parliament of United Kingdom

³⁸⁹ Treaty Banning Nuclear Weapons Test in the Atmosphere, in Outer Space and Under Water (The Limited Test Ban Treaty), August 5, 1963

³⁹⁰ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 355

³⁹¹ United Nations General Assembly Resolution on the Comprehensive Nuclear Ban Test, A/RES/50/245, September, 1996

³⁹² Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 355

³⁹³ Treaty Between the United States of America and the Union of Soviet Socialist Republics on The Limitation of Anti-Ballistic Missile System (ABM Treaty), May 26, 1972

³⁹⁴ Thomas Buergenthal and Sean D. Murphy, *Public International Law* (Thomson West Publishing Co., 4th edn, 2007) 356

freeze, reduce, and possibly eliminate all kinds of nuclear weapons during the Cold War period.³⁹⁵

Actually, some of these agreements never entered into force, while others have been disputed after the Cold War era as no longer contemporaneous with present day reality. In May 2002, The Russian Federation and the United States built upon these treaties by concluding a Strategic Offensive Reduction Treaty, in which they agreed to reduce nuclear warhead. When signing the treaty President George W. Bush said “[t]his treaty liquidates the Cold War legacy of nuclear hostility between our countries.”³⁹⁶

By and large, the researcher acknowledges the success of this article of which the autor exposes the purpose and reasons for legislation that will contribute to reducing the risks of armed conflict and misunderstanding or miscalculation of military engagements. The analysis of the Stockholm conference on confidence and Security Building Measure and Disarmament in Europe and the Geneva talk on a Treaty for the Elimination of Intermediate-Range and Shorter-Range Missile involving the United Kingdom (UK), the United States of America (USA), and the Union of Soviet Socialist Republics (USSR) in conjunction with North Atlantic Treaty Organisation (NATO) has broaden the research horizon of the researcher. As part of the review of the litretures, the researcher identified some gaps which will be presented at the end of this chapter.

2.8.2 The Rationale behind the Selected Academic Textbooks

Nuclear weapons as one of the categories of Weapons of Mass Destruction (WMD) has been a topic of both political and legal controversies. The debate associated with nuclear weapons became intense since the bombing of the cities of Hiroshima and Nagasaki in Japan by the United States of American during the final stages of the World War II in 1945, which pose a horrific threat of human self-annihilation.³⁹⁷ Therefore, the fundamental question of legality of the possession or use of nuclear weapons became an urgent attention of intense academic scrutunity. This is factual as it pivotally involved humanity and it is impossible to downplay its attendant threats. The choice of this section is guided by the themes of the following academic textbooks below:

Istvan Pogany: Nuclear Weapons and International Law.³⁹⁸

The rationale for selecting this book for review is not farfetched: it thematically underpinned the basis of this research in its entirety. Essentially, morality, legality, and international politics are intertwined in the analysis of nuclear weapons discourse and any effort to solely deal with the legal aspects is destined to justifiable accusation of lop-sided consideration. Nevertheless, “International Law provides the framework within which States conduct their international behaviour, commonly accepting certain

³⁹⁵ Ibid

³⁹⁶ Ibid

³⁹⁷ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987) 1

³⁹⁸ Ibid

reciprocal constraints and regulating expectations raised".³⁹⁹ A conspicuous gap here is, there is no international legal framework for morality and political considerations in terms of nuclear weapons. This implies that the law does not determine moral consciousness and political principles.

Is the possession of nuclear weapons politically reasonable and their acquisition economically rational by any State? It should be recalled that there is no existing international treaty out rightly banning the existence of nuclear weapons and as such, it should be recalled that recourse must be made to other sources of international law to ascertain the international legal principles regulating nuclear armaments. International law can come into force by any or all of these three recognised mechanisms: international treaties and international convention, accepted as evidence of the general practice of States or general principles of law accepted by States, judicial decisions and juridical and writings of publicists as subsidiary means and determination of law.⁴⁰⁰

In practical procedure terms, there is an extensive State practice dealing with the conduct of nuclear weapons. Pogany points that this range from specific bilateral and multilateral regional and international agreements to the United Nations General Assembly (UNGA) Resolutions and the United Nations Security Council (UNSC) Resolutions. The United Nations resolutions are recommendatory but they constitute the necessary obligatory elements of State practice that create customary international law binding on all.⁴⁰¹ The various United Nations resolutions on nuclear disarmament revolve around the central legal questions of whether the use and the deployment of nuclear weapon are lawful. Most of the discussions on the legality of nuclear weapons are predicated on the applicability of the general principles to nuclear weapons. The nature of nuclear weapons and their destructive capabilities has affected the perception of many analysts as pointed out by Pogany.

In the face of the actual possession of nuclear weapons by the NWS and the adoption of the policy of opacity or strategic ambiguity by some NNWS, it is very difficult to legally prove that possession and acquisition of nuclear weapons are unlawful. This unambiguous perception is the bane and the major shortfall of the law in the midst of the existence of nuclear weapons in the world. International law either by virtue of general principles or by specific provisions does adequately control the use of nuclear weapons. This is regrettable not only because of the lethality of these weapons but also by the virtue of impotency of the law faced by the threat of nuclear weapons.

According to Pogany, as a substantive means of international law, the ICJ advisory opinion on the legality of the threat or otherwise of the use of nuclear weapons characterised by the consciousness of the risks of the continuing existence and development of nuclear weapons pose to humanity and the complete elimination of these weapons is the only guarantee against these risks.⁴⁰²

³⁹⁹ Ibid

⁴⁰⁰ Martin Dixon, *International Law* (Oxford University Press, 7th edn, 2013) 2

⁴⁰¹ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987) 2

⁴⁰² International Court of Justice (ICJ) Advisory Opinion on the legality of the Threat or Otherwise of the Use of Nuclear Weapons, General List No (95) July 8 1996

Pogany explains that as a result of the present recrudescence of anxiety and acrimony arising from the very existence of nuclear weapons, there is a widespread feeling that the nuclear arm race had become uncontrolled and uncontrollable, thereby casting doubt on the superpowers agreement to put a clamp on the upward escalation in numbers and sophistication of the their devastating nuclear armouries.⁴⁰³ In evaluating the position of certain customary international law, special attention and persuasion must be given to NWS and their allies.

This book, *Nuclear Weapons and International Law* has a selection of essays by British and North American international legal scholars who use the law to explain the illegality of the use, testing and deployment of nuclear weapons, the history and efficacy of arms control agreements, legal controls on the proliferation of nuclear weapon and the establishment of nuclear-free zones. This book with 9 chapter and 245 pages is very consequential for this research. However, it does not examine any moral concern and political considerations as veritable options in nuclear disarmament discourse.

Elli Louka: Nuclear Weapons, Justice and the Law.⁴⁰⁴

The existence of nuclear weapons in the midst of the law which nuclear disarmament seek to acquire and the concept of justice is one of the central problems of the twenty-first century.⁴⁰⁵ Nuclear power is globally relied upon for energy and increasingly, a number of States incorporate nuclear weapons into their defence system. Consequently, nuclear technology may proliferate and spread such that, States including the ones with nuclear warheads may not be able to exercise the use of nuclear capabilities.

As explained by Louka, non-governmental entities may acquire and conspire to use nuclear energy in a destructive form. Nuclear weapons have been hitherto the exclusive prerogative of small number of the most powerful States in the world. But now, they have been proliferated. The deterrence defence theory which became palpably dynamic amongst the nuclear club during the Cold War epoch and already helped to keep the world from nuclear annihilation may be a mere illusion instead of a solution. The reason for selecting this text book is because the author deals comprehensively with some core issues essential for this present research.

In the view of Louka, the Cold War was characterised by salient questions such as: how many weapons were enough? What are their destructive capabilities? And at what target and what degree of certainty of their delivery accuracy?⁴⁰⁶ The politics of nuclear weapons imply changing the operational strategies of the battlefield of a future of the post World Wars era.⁴⁰⁷

⁴⁰³ Istvan Pogany, *Nuclear Weapons and International Law* (Gower Publishing Company Ltd, 1987)2

⁴⁰⁴ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011)

⁴⁰⁵ Ibid vii

⁴⁰⁶ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 15

⁴⁰⁷ Lawrence Freedman, *The Evolution of Nuclear Strategy* (Palgrave Macmillan, 3rd edn, 2003)

The utility of nuclear weapons become clear when war is viewed as a stamina exercise between populations rather than military defence against external aggressions.⁴⁰⁸ Nuclear weapons have psychological effects. Their use is retributive as their target becomes example and act as deterrent to potential aggressors. The psychologically crippling effects and the combination of lethality of nuclear weapons shapes the concept of warfare as an exhibition of military might that decisively disheartens and defeat any force of adversary.⁴⁰⁹

Supposing that the more practical, the less destructive and the less catastrophic nuclear warheads become widely available, the difference between nuclear and conventional weapons will disappear into oblivion. It is quite clear that if nuclear weapons are used within the next 15 – 20 years, the international community will be shocked and the kind of institutional response such use will generate will be difficult to predict.⁴¹⁰ If they are used, the less destruction nuclear weapons will cause, the more legitimate they will become.⁴¹¹

From the fore going, this book of 440 pages with 11 chapters offers an unflinching assessment of the uses and potential abuses of nuclear instrument both presently and in the projected future of interlocking international belligerency as it pertains to international law and politics. However, the concept of justice as regarding nuclear weapons is not enunciated and the law is not elucidated in this book. In chapter 9, the author refers to the Advisory Opinion of the International Court of Justice (ICJ) on the Legality of the Threat or Otherwise of the Use of nuclear weapons in the light of the survival of the States. This does not adequately explain the legal framework regulating the non-proliferation on nuclear disarmament.

In chapter 4, Elli Louka, captures the architecture of nuclear non-proliferation order through the Nuclear Non-proliferation Treaty (NPT). She identified deficiencies associated with the NPT, including the division of States into nuclear-weapons-haves and nuclear-weapons-have-nots; and the loose links between non-proliferation principles and nuclear disarmament. The later implies that the principle of non-proliferation is difficult to uphold because it requires draconian punitive measures of enforcement.

Louka explains the principles of humanitarian law against the backdrop of the use of nuclear weapons in war. She demarcates the concept of necessity from that of proportionality in warfare involving nuclear weapons. On the one hand, necessity in the conduct of war is tantamount to the concept of military necessity. Meaning, war is considered as a last resort when other means of peaceful settlement of a dispute have been exhausted.⁴¹² On the other hand, proportionality in the conduct of war centres on the combatants and civilians casualties. Proportionality also involves an overall evaluation between the destruction by war to the enemy state and the interests and

⁴⁰⁸ Ibid

⁴⁰⁹ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 15

⁴¹⁰ United States National Intelligence Council, *Global Trends 2025: A Transforming World*, 2008, ix www.dni.gov/nic/NIC_2025_project.html accessed 14 January 2016

⁴¹¹ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 20

⁴¹² Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 318

values that must be protected by engaging in a war.⁴¹³ Louka does not argue the use of nuclear weapon may amount to war crime.

Consequently, the author neither identifies nor situates the place of nuclear weapons in these concepts of necessity and proportionality in the light of the principle of international humanitarian law. Fundamentally, either of the concepts does not justify nor support the use of nuclear weapons in war. If nuclear weapons are used in war under the concept of necessity, it then negates the principle of the doctrine of deterrence and if nuclear weapons are used under the concept of proportionality, it could well lead to Third World War in place as this may involve at least two Nuclear NWS and their allies with the resultant effects of unimaginable catastrophic effects arising from the use of nuclear warheads.

Sidney D. Drell: Facing the Threat of Nuclear Weapons.⁴¹⁴ This book is given utmost consideration for review as part of the literature for this research by the researcher, because it is one of the ablest with constructive and neutral analysis of the controversy of nuclear disarmament discourse. As credence to its selection, it is a thought provoking piece written by an internationally acclaimed theoretical and professorial physicist. The author examines the nature and the magnitude of the threat posed by nuclear weapons. The book explains the technical realities of nuclear weapons and how these realities limit the options for policy by policy makers.

The author emphatically examines the arms control approaches that can reduce the threat of nuclear weapons, the need for government to make effective use of scientific advice and the demonstration of the importance of public opinion for making progress in arms limitations. These views of the author of approximately three decades ago are contemporaneous with the World Court Project that resonated in the concept of *The Public Conscience*, which is highly esteemed in international law. 3.6 million *Declarations of Public Conscience*, stating the belief of ordinary citizens that nuclear weapons are immoral and unethical, were sampled globally in 36 languages, 110,000 of the sampled collected were from the United Kingdom. This *Declarations of Public Conscience* was officially received by the Registrar of the World Court with the attention of all the judges.⁴¹⁵

In the same vein, the writer acknowledges the fact that the unprecedented scale of destruction and devastation inherent in nuclear weapons present humanity with fundamental moral issues. The researcher appraises the author for his moral concern and analysis about nuclear weapons, because as a scientist, it would have been natural for the author to have addressed the issues of nuclear weapons, war and peace with scientific or technologic orientations devoid of moral concerns. However, the author posits that the avoidance of nuclear holocaust is the absolute and moral imperative of our time.⁴¹⁶

⁴¹³ Ibid

⁴¹⁴ Sidney D. Drell, *Facing the Threat of Nuclear weapons* (University of Washington Press, 1989)

⁴¹⁵ George Farebrother, 'The Law and Nuclear Weapons' [2005] <http://www.abolition2000europe.org> accessed 2 November, 20015

⁴¹⁶ Sidney D. Drell, *Facing the Threat of Nuclear weapons* (University of Washington Press, 1989) 4

Remarkably, the author in his analysis balances the controversy associated with the doctrine of nuclear deterrence. Nuclear deterrence is the key concept of the nuclear age and it has stood the test of time for decades. A clear understanding of what deterrence means must underpin any discussion or explanation of nuclear policy and weapons.⁴¹⁷ Based on the balanced analysis of nuclear deterrence in this book, the book stands to serve as veritable source for this research.

Dimitris Bourantonis: The United Nations and the Quest for Nuclear Disarmament.⁴¹⁸ This book is being reviewed as part of the literature of this research because it focuses on the role the United Nations has played and still playing in the negotiation process of nuclear disarmament. The book poses some questions crucial for the elucidation of the research in view of the United Nations disarmament negotiations: what was the particular policy or approach of the United Nations to nuclear disarmament at any given time? To what extent was there broad consensus amongst the United Nations membership on disarmament? And was the United Nations afforded with primary or secondary responsibility in dealing with nuclear disarmament negotiations?

In seeking answers to these questions, the primary sources of this research which include: United Nations General Assembly (UNGA) resolutions and United Nations Security Council (UNSC) resolutions on disarmament, Multilateral and International Treaties, Conventions, and Declarations on disarmament have been accessed through the database of the United Nations Office for Disarmament Affairs. Also, there are several publications and articles which are specifically on nuclear weapons disarmament in the website of the United Nations Institute for Disarmament Research in Geneva, Switzerland; as well as the 1996 International Court of Justice (ICJ) Advisory Opinion on the Legality of the use of Nuclear Weapons.

This book as a secondary source material complements the various United Nations General Assembly and Security Council resolutions on nuclear disarmament. The author evaluates the role of the United Nations as a regulator of nuclear disarmament and the conditions which can make the UN more effective. The UN's effectiveness which depends on the reliance of the readiness of its member States will likely have limited effect, therefore, the UN need to have an enforcement mechanism in the field of disarmament.⁴¹⁹

The United Nations as a non-supranational entity and authority means that the potential for the attainment of its goals on disarmament implies a comprehensive regime. The member States do not only determine what UN action and policy should be adopted at any given time but also the means by which to accomplish this policy. Hence, the United Nations Charter urges all member States to give the UN all necessary assistance.⁴²⁰

⁴¹⁷ Ibid, Sidney D. Drell, 9

⁴¹⁸ Dimitris Bourantonis, *The United Nations and the Quest for Nuclear Disarmament* (Dartmouth Publishing Company, 1993)

⁴¹⁹ Dimitris Bourantonis, *The United Nations and the Quest for Nuclear Disarmament* (Dartmouth Publishing Company, 1993) 168

⁴²⁰ Charter of the United Nations, art 2 (5), 1945

Han Blix: Why Nuclear Disarmament Matters.⁴²¹ The selection of this book for literature review is predicated on its precise introduction of history, state of affairs and the continued relevance of nuclear disarmament. The author presents valuable preposition on how to move the disarmament agenda forward. This book is consequential for this research because it approaches its theme from the legal perspective. In chapter two, entitled *Globalisation of Law*, the author explains that since the end of the Second World War there have been a tremendous consolidation and expansion of international law and as a consequence, continuing issues including those of hard core security are settled through international legal system.⁴²²

Nevertheless, the writer does not dwell much on the legality of nuclear weapons as such. Rather, he focuses on the structure of the international system, specifically, the role of the United Nations Security Council. While acknowledging the enormous security threats posed by the spread of nuclear weapon to the so-called rogue States, he cautions against pre-emptive military action aimed at stopping such proliferation. His argument is such that an over stretch of legal prerogative by the United Nations or individual States with superior military capability would diminish the international rule of law, thereby undermining the long term shared security of all. His recommendatory view is that States must ensure security without nuclear weapons and this possibility obliterates the tendency to acquire them.⁴²³

Presumably, this assertion is possible according to Blix, in a world where the rule of law has been globalised. However, it remains unclear to the researcher whether the globalisation of law posited by the author is a necessary condition for nuclear disarmament or a pre-condition for acquiring nuclear weapons. Generally, this book places nuclear disarmament on the international agenda as it analytically brings objectivity to the debate.

John Fennis, Joseph M. Boyle, and Germain Grisez: Nuclear Deterrence, Morality and Realism.⁴²⁴ The clarity and precision with which the authors set out the arguments about the morality of nuclear deterrence through this book influenced its selection as part of the literature review of this research. Nuclear deterrence requires objective ethical analysis. In providing this analysis, the authors address the realities of nuclear weapons threat, nuclear holocaust and strategic nuclear weapon as imperative. In unmasking moral evasions, deterrence cannot be bluff, pure counterforce of the lesser evil or a greater evil, or a step toward disarmament.

Writing within the influence of the Roman Catholic tradition, the writers of this book base their belief on a strict construction of the rule derived from the 'common morality of the Judaeo- Christian tradition'.⁴²⁵ They stress the forbidding of the killing of the innocent, especially the innocent non-combatants during warfare. Obviously, any action which kills such innocent people is nothing but pure murder and as such, any

⁴²¹ Han Blix, *Why Nuclear Disarmament Matters* (MIT Press, 2008)

⁴²² Ibid, p 20

⁴²³ Han Blix, *Why Nuclear Disarmament Matters* (MIT Press, 2008) 45

⁴²⁴ John Finis et al, *Nuclear Deterrence, Morality and Realism* (Clarendon Press, 1988)

⁴²⁵ Ibid, 77

intention which embraces such killing is an immorally inclined intention not different from crime against humanity.

This belief of the writers of this book is in conformity with part of the jurisprudential rationale of this research embedded in the 'natural law theory of morality'. Natural law of morality centres on what is right and what is wrong. The principles of right and wrong are found in the various sacred books, such as Koran and the Bible (scriptures), doctrine of the church, papal decrees, and the decisions of the ecclesiastic courts and council.⁴²⁶ Human law that are inconsistent with divine principle of morality are basically invalid and they should neither be enforced nor obeyed.⁴²⁷

Also, the researcher acknowledges the influence of St Thomas Aquinas views on the authors. St. Thomas Aquinas (1225 – 74), was an Italian philosopher and theologian. Aquinas was the originator and leading exponent of divine natural law and the most influential thinker of the medieval epoch that produced powerful philosophical synthesis. This sythensis combined Aristotelian and Neo-platonic elements with a Christian context in an original and ingenious manner, whose works underpinned the natural law theory of this research.⁴²⁸

The Researcher's Reflection on the Aforementioned Book

Through this book, the horizon of the researcher has been broaden, as it pertain to the ambivalence of the U.S atomic bombing during the Second World War and the present day deterrent policy, which is laden with foreseeable consequences. Though, it is worth pointing out that deterrence does not intend any destructive consequence, however the political leaders have opened the possibility wth reference to the scope and magnitude of both conditionally and unconditionally implementing it. Nevertheless, there is a credit to the proponents of deterrence. It could be argued that deterrence has ensured avoidable nuclear war and produces a kind of peace with the recognition of moral responsibility. However, such peace can be overshadowed by tyranny with no guarantee against a war involving some use of nuclear weapons.

There is an identifiable gap of moral responsibility to resist the hegemony of the Nuclear Weapon States (NWS) by the Non-Nuclear Weapon States (NNWS). This moral responsibility can only be breached with the violation of more binding moral requirements. The NNWS over time have rejected arguments based upon a comparison of the consequences of the successful deterrence with those of failure to deter. The Kantian ethics of duty of always to do always what we would wish everyone to do⁴²⁹ is a dichotomous issue not only identified as gap in this literature but also an integral aspect of the entire research on which the research need to strike a balance.

The condemnation attributable to deterrence theory rests upon the intention of those who espouse the policy. The theory proposes that nuclear weapons are intended to deter other States from launching attacks with their nuclear weapons through the fear

⁴²⁶ Jonathan Burnside, 'Natural Law and the Two Kingdoms: A Study in the Development of Reformed Social Thought' [2011] Ecc. LJ 13(2), 230 - 232

⁴²⁷ Robert Audi (ed), The Cambridge Dictionary of Philosophy (Cambridge University Press, 1995) 599

⁴²⁸ Ibid

⁴²⁹ Allen W. Wood, *Kantian Ethic* (Cambridge University Press, 2008) 1

of retaliation usually occasioned by concept of Mutually Assured Destruction (MAD).⁴³⁰ The deterrence theory inherently presupposes and promotes nuclear proliferation against the axiomatically accepted nuclear non-proliferation obligations codified in the various multilateral treaties. However, 'common morality' is considered absolute, yet deterrence is adjudged suitably acceptable by most upholder of common morality.⁴³¹ These divergent views on deterrence are indices of an in depth analysis required of the research in its critical analysis. This is because they are different grounds for the condemnation of deterrence, use of nuclear weapons and disarmament.

Further to the explicit analysis of this book, the researcher understands that the objective of nuclear deterrence is to prevent nuclear war. Deterrence does not actually imply killing, but it is criticised for moral deformation of those who holds the conditional intention.⁴³² The incommensurability of goods and evils is a major logic deduced by the researcher in deciphering the core issues of the deterrence debate.

Wade L. Huntley, Kazumi Mizumoto, and Mitsuru Kurosawa: Nuclear Disarmament in the Twenty-first Century.⁴³³

This book is deemed necessary for review by the researcher for this research, as it offers an elucidating analysis of the present state, retrospect and prospects of nuclear disarmament in the wake of the twenty-first century. The authors, combine a sensible appraisal of nuclear disarmament initiatives made in the last decades with a proactive proposal and agenda for the next decades. In contradistinction to conventional perception, their contributions propose that the snowballing global cache, accumulations, and proliferations of nuclear weapons is diminishing the nuclear disarmament initiatives of recent years.

By the examination of the emerging circumstances of the twenty-first century, characterised by subject-based perspectives of nuclear weapons and nuclear disarmament, this book unravels how the possibility of enduring uncertainty and change in global issues create prospects and the need for reactivated progress toward nuclear disarmament. Consequently, the researcher considers this book very insightful because since the beginning of the twenty-first century, nuclear weapons and nuclear disarmament have crucially dominated the international domain in terms of the actions and inactions of States with regard to State policy and State practice.

The twenty-first century has been till today the most innovative century in human history characterised by technological advancement and achievements. Living in the twenty-first century also has the threat of untamed spread and proliferation of nuclear weapons and nuclear materials as well as nine States possessing nuclear weapons and several States with nuclear ambition and capability. It is imperatively crucial to accentuate the necessity for nuclear disarmament. Hence, this book is not only valuable for this research but also underscores the exigency of the time of this research.

⁴³⁰ Robert Powell, *Nuclear Deterrence Theory* (Cambridge University Press, 1990) 7

⁴³¹ John Finis et al, *Nuclear Deterrence, Morality and Realism* (Clarendon Press, 1988) 34

⁴³² Ibid

⁴³³ Wade L. Huntley et al, *Nuclear Disarmament in the Twenty-First Century* (Hiroshima Peace Institute, 2004)

V.R. Raghavan: Global Nuclear Disarmament: Geopolitical Necessities.⁴³⁴

As the title implies, this book is a compendium of ten global contributors to the necessity of nuclear disarmament across geopolitical lines, edited by V.R. Raghavan. The contributors are made of - five academics, two former Ambassadors, one retired army General with a doctoral degree and former commandant of the New Delhi National Defence College, and two researchers in international security, nuclear non-proliferation and nuclear disarmament issues.

The rationale behind the selection of this book for review is predicated on the several important issues it addresses in the wake of the push for disarmament initiatives. These issues include “lower arsenal level which can be reached by Nuclear Weapon States and speed with which such can be attained.”⁴³⁵ Motivated by his enriching contents which include: “Pathways to Nuclear disarmament and Time Challenges”; “Nuclear Doctrines and Nuclear Disarmament”; and “Geopolitical Conditions Enabling Nuclear Disarmament”, the researcher explores a comprehensive analysis of the imperatives for nuclear disarmament to address the determinants of the de-legitimation pathway.

The de-legitimation or de-legitimization is a legal effort to prohibit nuclear weapons influenced by public opinion on the basis of humanitarian considerations.⁴³⁶ This is in conformity with the jurisprudential theory of Natural Law as ethical legitimacy for nuclear disarmament espoused for this research. On the basis of legal pathway, the NNWS are more vulnerable to the threat of nuclear weapons than the NWS when the need for Mutual Assured Destruction applies (MAD). Consequent upon the interplay between vision and action, this book synergistically synthesises the problem of arms controls and it examines disarmament measures as it pertains to the attractiveness of the vision of objective in a more thinkable decision making and, the assertiveness of action in equitably addressing the current dichotomy between the NWS and the NNWS in the imbalance of implementation and compliance of disarmament obligations and commitments.

James Penner and Emmanuel Melissaris: McCoubrey & White’s Textbook on Jurisprudence.⁴³⁷

This textbook is elucidative and quite suitable for usage and review for this research. The authors cover almost every aspects and facets of jurisprudence, philosophies and theories of law thus making the researcher to explore it as an appropriate guide for this doctoral thesis. The characterisation of this book includes the extensive discussion of the Concept of Law and the provision of analysis of the development of legal theories pre and post H.L.A. Harts’ jurisprudential contributions.

Captivatedly, this book explicitly explains the complexities of the subjects with their sophisticated ideas without prolixity and over-simplification, thus, providing a solid

⁴³⁴ V.R. Raghavan, *Global Nuclear Disarmament: Geopolitical Necessities* (VIJ Books Indian PVT Ltd, 2012)

⁴³⁵ *Ibid*, vii

⁴³⁶ *Ibid* 14

⁴³⁷ J.E. Penner and E. Melissaris, *McCoubrey & White’s Textbook on Jurisprudence* (Oxford University Press, 5th edn, 2012)

base for further research on its subject matters and as well motivating the researcher to daunt its topics with assertiveness in deducing the jurisprudential rationale for nuclear disarmament. Chapters are dedicated to major jurisprudential theorists like Thomas Hobbes, Immanuel Kant and John Rawls and putting their view in contextual perspectives to the extracted primary sources materials. Absolutely consequential to this research, the Hobbeans, Kantian, and Rawls' politico-legal philosophies embedded in three sequential chapters of this book's edition, are chapter 7 – "The Building Blocks of Law: Norms and their Nature"; chapter 8 – "Governing and Obedience" and chapter 9 - "Law and Adjudication" are veritably enriching and encoding.

2.8.3 Identification of Gaps in the Literature

In reviewing the above literatures comprising of scholarly articles and academic authors, the researcher identifies the following gaps which he considers as not been adequately addressed and thematically covered by the various writers.

- a) **Absence of contextual examination of the analysis of nuclear weapons disarmament from the perspective of Philosophy of Law.** The authors reviewed do not seem to have addressed the core issues associated with the research holistically. The contextual examination and analysis of nuclear weapons and disarmament matters from the perspective of philosophy of law underlying such discourse is obviously lacking in all the literatures. Consequently, the researcher has made an attempt to fill this obvious gap in **section 2.2**, General Jurisprudence: Philosophy of Law and in **section 2.3**, 'Relevance of the Concept of Law to the Research'. The focal point of Legal Philosophy is to explore the structures of reasoning concerned with the presuppositions of legal principles driven by the theoretical apparatuses by which human experience is interpreted.⁴³⁸ Thus, Legal Philosophy in this context cannot be clearly detached from the kind of enquiries undertaken by sociology of law in view of this research in relation to nuclear disarmament.

Emphatically, there are quadruple dimensions of jurisprudence within the domain of law. The first and the most customary aspect of jurisprudence seek to analyse, explain, classify and criticise the whole bulk of law. Law books and legal encyclopaedias stand to represent this form of jurisprudence. The second dimension of jurisprudence compares and contrasts law with other academic disciplines such as Philosophy, Sociology, Psychology, Political Science, and other disciplines in the humanity and the social sciences. The third form of jurisprudence seeks to expose the historical, moral and cultural background of a particular legal concept. And the fourth type of jurisprudence centres on

⁴³⁸ Roger Cotterrell, *The Politics of Jurisprudence A Critical Introduction to legal Philosophy* (Butterworths, 1989) 2

finding answers to such abstract questions as what is law? And how do judges properly decide cases?⁴³⁹

Based on the above, this research tries to demonstrate and justify how the law codified in the treaties on nuclear non-proliferation and disarmament interact with International Humanitarian Law (IHL) in **Chapter 3, section 3.4** and by extension societal value and belief system. The jurisprudential concept of the rule of law, legal ethics, and civil disobedience, extend further than political theory⁴⁴⁰ in all dimensions affecting the campaign for nuclear weapons disarmament. Legal theories require a principle or the rationale that will enhance them to be differentiated from the fundamental reasons of other theories and to identify what is pivotally relevant when analysing the different interpretations of the concept of law.⁴⁴¹

In specifically addressing the absence of Philosophy of Law or General Jurisprudence as an identified gap in the literature review, the thesis examine the jurisprudential theories of natural law, its relevance to the debate on nuclear disarmament in **section, 2.4** and legal positivism, how it relates to this research in **section 2.5**. The concepts of natural law of morality and natural of legality presuppose that the universe has a divine order which naturally translated into an ethical and legal frameworks. An ethical framework for the ultimate good of humanity and a natural legal framework that negates the consequences of manmade. corrupt and bad law.

As it relates to nuclear disarmament and the catastrophic impacts and humanitarian consequences associated with any use of nuclear weapons, humanity has ethical norms derived from wisdom and good conscience. This implies that humanity has the responsibility through the duty of States and non-States actors to ensure nuclear weapons are prohibited and eliminated to obliterate the dangers surrounding them. The fundamental characteristic of all civilised human values to protect lives and the environment should take precedence over any persuasive argument on retaining nuclear weapons.

Legal positivism as explained in **section 2.5** is predicated on the claim that the proper description of the law is a commendable objective that needs to be kept separate from moral judgements in view the existing law, and in view on how the law should be upheld, developed or changed. Nuclear weapons and the concept of disarmament have codifications in various treaties such as the Treaty on the Prohibition of Nuclear Weapons, the Non-proliferation of Nuclear Weapons Treaty and the Nuclear Weapons Free Zone Treaties. The description of the law on disarmament as codified in these treaties should be implemented by command of the sovereign that is State actors regardless of the merit or otherwise of the law.

⁴³⁹ Jurisprudence <<http://www.law.cornell.edu/wex/jurisprudence>> accessed 7 May 2014

⁴⁴⁰ Robert Audi (ed), *The Cambridge Dictionary of Philosophy* (Cambridge University Press, 1995) 456

⁴⁴¹ Verónica Rodríguez-Blanco, 'Is Finnis Wrong? Understanding Normative Jurisprudence' [2007] LT 13 (3/4), 257 – 283

- b) **Lack of comprehensive synergy between the legal challenges and the political considerations on nuclear disarmament.** There is a lack of synergy in the literature review. The writers of the reviewed literatures do not synergise the legal imperative and political consideration embedded in the topic of nuclear weapons disarmament. However, Istvan Pogany in his book: *Nuclear Weapons and International Law* synthesises morality, legality and international politics in the analysis of nuclear weapons discourse, but his synthesis and analysis do not serve as a synergy to cover the existing gap between the legal concern and political exigency arising from the nuclear weapon non-proliferation and disarmament discourse. As a result of this notable gap, the research addresses in **Chapter 4** the legal framework for nuclear disarmament and international challenges (politics) affecting the legal procedures for nuclear disarmament.

In an attempt to fill this gap, the thesis examine the nuclear weapon states and their positions on nuclear disarmament from the perspective of international politics in **chapter 4, section 4.2**, in complementing the legal challenges associated with nuclear disarmament. The principles and perspectives of commitment of all the nuclear weapon states and other nuclear possessing states are predicated on their national and foreign policy statements. The nuclear weapon states have not yet seriously and conscientiously focused on the required steps needed for general and complete disarmament..

Nevertheless, there is an extensive and appreciative precedent of the United States of America and the defunct USSR in bilateral agreements regarding nuclear arms control since 1969. The United States and the present day Russia have been strategically limiting their nuclear capabilities by reducing their nuclear aramments through bilateral treaties. These treaties include the Strategic Arms Limitation Talk (SALT) held from 1969 to 1972, and the Anti-Ballistic Missile Systems (ABM) Treaty of 1972 and amended in 1973.

As a political will and disposition towards disarmament as explained in Chapter 1, section 1.1.3, entitled the world court project paragraph 4, there was a trilateral agreements (tripartite pact) amongst the US, the UK and the defuct USSR on the Limited Test Ban Treaty of August 5 1963. This treaty prohibited all nuclear explosions with the exception of underground tests..

As indicated in **chapter 4, section 4.2, paragraph 7**, the United States and Russia, which still hold over 95% of the world's nuclear weapons are consciously reducing the size of the nuclear armaments. However, the general perception of other nuclear weapons states and non-nuclear weapon states is that these two states still need to reduce their nuclear weapons from thousands to hundreds to demonstrate the serious of their disarmament commitments.

- c) **The legal gap between the doctrine of nuclear deterrence and nuclear disarmament.** In the course of the literature review, the researcher discovers that the authors of the literatures appear not to establish the nexus between nuclear deterrence and the legality of the use of threat or otherwise of nuclear weapons. The doctrine of nuclear deterrence has military origin with

international political determinacy and it tends to have hold sway over the International Court of Justice (ICJ) Advisory Opinion on nuclear weapons. Consequently, this research will attempt to fill this gap in **Chapter 4, section 4.4 – The Doctrine of Nuclear Deterrence: Military Illusion or Political Solution? Rationale for Disarmament** with allusion to the 1996 International Court of Justice Advisory Opinion on the Legality of the Threat or Otherwise of the Use of Nuclear Weapons. This will explain how the international legal and political systems can be viewed as reciprocally autonomous but not self-sufficient.

This thesis extensively examines the doctrine of nuclear deterrence with the view of trying to fill the gap between the legality of the use of threat or otherwise of nuclear weapons and nuclear deterrence as military illusion or political solution to disarmament. As explicitly elucidated in **chapter 4, section 4.4, paragraph 11**, the ultimate determination of nuclear deterrence happens in nuclear crisis situation. Furthermore, in **paragraph 13**, nuclear deterrence is explained as a measure to dissuade a nation's adversaries from possible nuclear attack by the corresponding threat of overwhelming retaliatory counter-attack.

As shown in **paragraph 14**, it could be argued that nuclear deterrence is not a recognised norm in international law. Viewed from the perspective of international humanitarian law, both nuclear weapons and nuclear deterrence constitute instrumentalities of international lawlessness and ambitious global political hegemony of the Nuclear Weapon States. In **paragraph 16**, it is deduced that the combination of military and political elements embedded in the doctrine of nuclear deterrence contravene the legal conditionality on disarmament.

- d) **Lack of legal cases arising from the legal provisions on nuclear disarmament and question on legality of nuclear weapons.** An outstanding deficiency or gap discovered from the afore-reviewed literatures is the total absence of legal cases arising from the ambiguity of some of the provisions of the Non-proliferation of Nuclear Weapons Treaty (NPT) and by extension the entire nuclear disarmament issue. Upon further research, the researcher discovered that in April 24, 2014, the Republic of Marshall Islands (RMI) filed separate applications before the International Court of Justice (ICJ) against the five Nuclear Weapon States (NWS) recognised by the NPT and other nuclear weapon possessing states operating the policy of opacity or strategic ambiguity such as Israel, India, Pakistan, and North Korea that are not party to the NPT.⁴⁴²

⁴⁴² International Court of Justice (ICJ) 2014, Obligation Concerning Negotiation relating to Cessation of the Nuclear Arms Race and to Nuclear Disarmament (Marshall Islands v the U.S., Russia, UK, France, China, Israel, Pakistan and North Korea

Marshall Islands is claiming a violation of Articles VI of the NPT: “*Each party of the treaty undertake to pursue negotiation in good faith on effective measures relating to cessation of the nuclear arm race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict effective international control.*”⁴⁴³ This case has been decided by the ICJ and the outcome was, the ICJ ruled that it lacked jurisdiction because no legal dispute existed when application initiating the case was filed in April 2014 by the Republic of Marshall Island.

In recognising that there is a gap of lack of legal cases arising from the discourse on nuclear disarmament in the literature review, this thesis attempt to address this gap in **chapter 4, section 4.7**, entitled the 1996 International Court of Justice on the legality of the threat or use of nuclear weapons. In the two separate International court of Justice (ICJ) Advisory Opinions: (i) on the legality of the threat or use of nuclear weapons and (ii) on the legality of the use of nuclear weapons by a state in armed conflict, the world court judicially declared that nuclear weapons are subject to international humanitarian law.

The ICJ expressed with deep concern the catastrophic humanitarian consequences any use of nuclear weapons would cause and reaffirmed the need for all states at all time to comply with applicable international humanitarian law. The ICJ make references to earliest legal instruments and law of armed conflict all of which suggest the prohibition of nuclear weapons. This ICJ judicial position on nuclear weapons is the expectation of the global public on any legal case that would have hitherto arose from the question on the legality or otherwise of nuclear weapons in our world as well as any future case pertaining to the legal question on nuclear weapons.

In addition to the above identified gaps namely:

- (a) Absence of contextual examination of the analysis of nuclear weapons disarmament from the perspective of Philosophy of Law;
- (b) Lack of comprehensive synergy between the legal challenges and political considerations on nuclear disarmament;
- (c) The legal gap between the doctrine of nuclear deterrence and nuclear disarmament and
- (d) Lack of legal cases arising from the legal provisions on nuclear disarmament question on legality of nuclear weapons.

The thesis analytically reinforces and consolidates the filling of these gaps in chapter **3. Section 3.13 entitled the legal and humanitarian imperatives for nuclear disarmament**. The legal imperative for nuclear disarmament are associated with the legal instruments that both explicitly and implicitly regulate nuclear weapons. There is no legal vacuum or gap in view of nuclear disarmament, rather there is a gap in

⁴⁴³ The Treaty on the Non-proliferation of Nuclear Weapons (NPT), 1 July 1968, art VI

compliance of the legal provisions on disarmament. This gap in compliance necessitate the humanitarian imperative. The humanitarian imperative for nuclear disarmament resolve around the emergence of the concept of Humanitarian Pledge. The Humanitarian Pledge is an intensified global discourse on the humanitarian consequences arising from the use of nuclear weapons. The legal and humanitarian imperatives for nuclear disarmament are embedded in the deep concern on non-compliance with applicable international law.

2.9 Conclusion

Indisputably, research methodology is an efficient necessity and a paradigmatic imperative crucial for a substantive doctoral thesis. In view of this reality and the various explicitly explained research methodologies and paradigms, this research is characterised by qualitative research methodology with the approach of the doctrinal legal (black letter law) research strategy. It is a qualitative research approach due to the emphasis on the in-depth exploration and critique of international treaties and multilateral agreements on nuclear disarmament rather than comparative legal analysis or quantification in collection and analysis of data.

This research is doctrinal in nature because the doctrinal legal research method is concerned with critical analysis of jurisprudence or the philosophy of law as the topic involved is restricted or circumscribed to international law. Doctrinal research is strengthened by positivism with the worldview whereby the law is objective, neutral and fixed⁴⁴⁴ with emphasis on enforcement such as the existing of the legal framework on nuclear disarmament.

The approaches needed in the black letter law include analysing, synthesising, and critiquing legal provisions in view of identifying the core legal problem which required further address. This involves a lot of background reading so much, so that the researcher is well versed in the area of law being researched.⁴⁴⁵

Judging from the aforementioned backdrop and because of its focus on established sources of law, doctrinal research method which is usually a two-part process involving both sourcing for the sources of the law and the interpretation and critical analysis of the text is more predictable and time manageable.⁴⁴⁶ The adoption of the doctrinal legal method under the qualitative methodology in this research suitably underpins the nature and structure of international law and nuclear weapons disarmament, which constitute the main theme of this research

Consequently, -Consequently, the various literature reviewed serve as a worthwhile research integration by bringing together the views of intellectuals and academic scholars on nuclear disarmament in the light of international law. The structure of the literature review is analogous to a double part format as it is classified along the line of a selected academic journal articles and a spectrum of selected academic textbooks. The authors of the scholarly journal articles are selected based on

⁴⁴⁴ T. Hutchinson and N. Duncan, "Defining the Doctrinal" [2012] *Deakin Law Review* 17 (1), 84

⁴⁴⁵ Ibid

⁴⁴⁶ Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (Routledge Taylor & Francis Group, 2013)

contemporary publications on nuclear disarmament with regards to the norms and tenets of international law. In the same vein, the writers of the selected academic textbook are chosen not necessarily on the account of recent publications on nuclear disarmament but on the basis of nuclear weapons disarmament, international law, morality, deterrence, and international politics.

All the reviewed literature combined have the tone of legal speculation, political considerations and the logical evidence of the strategic possibility of nuclear warfare and the seeming reluctance of the NWS to think about the unthinkable. Inferentially, nuclear weapons disarmament discourse is predicated on the strata of interests and ideas. On the one hand, political hegemony and military superiority represent an interest in the continuation of the existence of these weapons. On the other hand, power of ideas in reconstructing thinking about nuclear weapons resonates in the doctrine of nuclear deterrence, ethical consideration and scholarly campaign against nuclear weapons. These factors are derived from the views of the various reviewed authors of this research literature.

CHAPTER THREE

THE NUCLEAR ARMS RACE: HISTORICAL OVERVIEW, THE LEGAL ARGUMENTS AND HUMANITARIAN IMPERATIVES FOR DISARMAMENT

3.1 Introduction

The 20th century witnessed revolutionary breakthroughs in every aspect and facet of human endeavours especially in the fields of science and technology. Within the technological inventions and scientific discovery of this century, nuclear science and the development of nuclear weapons came into limelight.⁴⁴⁷ In October 1939, just at the dawn of the World War II in Europe, President Franklin D. Roosevelt of the United States of America received a letter from the physicist Albert Einstein and his Hungarian counterpart Leo Szilard, drawing his attention that a bomb of extraordinary power could be manufactured by deriving the force of nuclear fission. Roosevelt accepted the request of Einstein and Szilard, urging the government of the United States to manufacture the unprecedented atomic bomb to beat the Hitler ambition to be the first to produce this lethal bomb.⁴⁴⁸

For the next four and half years, the United States with the cooperation of the United Kingdom and Canada launched the effort to produce this bomb in utmost secrecy and it was code-named "The Manhattan Project." This scientific effort led by Dr Robert J. Oppenheimer employed more than 200,000 workers and numerous thousands of scientists and engineers.⁴⁴⁹

Eventually, the atomic bombs were produced and the first nuclear bomb took place on 16 July, 1945 in New Mexico in the United States with a spectacular explosion to the astonishment of the scientists who manufactured it. As a result of the successful testing of the first nuclear bomb, nuclear weapons were consequently used in the bombing of the cities of Hiroshima and Nagasaki in Japan during the World War II.⁴⁵⁰

Note worthily, nuclear weapon or bomb is of two types: an atomic bomb and a hydrogen bomb. An atomic bomb works by splitting large atomic nuclei (fission) as uranium or more usually plutonium with usual release of substantial amount of energy. This is carefully operated or delivered with extreme caution as a limited size of this bomb can make it tends to blow itself apart before it all ignited. However, hydrogen bombs use an atomic bomb to ignite nuclear fusion bomb. That is, fusing hydrogen isotopes together to form helium which releases a much more amount of energy especially as the neutrons released by fusion part of the bomb makes the fission element more efficient.⁴⁵¹

⁴⁴⁷ Lorna Arnold. 'The History of Nuclear Weapons: The Frisch Peierls Memorandum on the Possible Construction of Atomic Bombs of February 1940' [2003] Cold War History Journal 3 (3), 111 - 125

⁴⁴⁸ Ronald E. Powaski, *Return to Armageddon: The United States and the Nuclear Arms Race, 1981-1999* (Oxford University Press, 2000) 3

⁴⁴⁹ Manhattan Project, New Word Encyclopaedia < <http://www.newwordenclopedia.org/entry> > accessed 08 February 2016

⁴⁵⁰ Ibid

⁴⁵¹ Ward Wilson, *Five Myths about Nuclear Weapons* (Houghton Mifflin Harcourt, 2013) 55

Based on the reality of the actual use of atomic nuclear bombs and as well as the possibility of the potential use of nuclear weapons, this chapter critically analyses the effects of the use of nuclear weapons against the background of the following:

- The principles of International Humanitarian Law (IHL),
- Nuclear deterrence: illusion or solution,
- Nuclear non-proliferation order and
- Nuclear Free-Zone (NFZ),
- global advocacy for disarmament, the legal arguments
- Humanitarian imperatives for nuclear disarmament amongst other consequential analyses.

The appraisal of the historical antecedents and analysis of nuclear weapons has broaden the horizon of the researcher in the course of this research on nuclear disarmament. This purpose of this chapter is to examine the historical overview of the nuclear armed race against the background of the legal arguments and humanitarian imperatives for disarmament. This chapter, directly addresses the second research objective linked to the second research question in **section 3.3: the use of nuclear weapons in warfare and the principles of international humanitarian law**. It equally addresses part of the third research objective linked to the first research question in **section 3:13: the legal and humanitarian imperatives for nuclear disarmament**. The history of the nuclear arms race are interwoven with the principles of applicable international humanitarian law in terms of prohibition and nuclear disarmament.

3.2 The History and Chronological Analysis of the Nuclear Arms Race

In August 1942, the United States of America (USA) with the collaboration of the United Kingdom (UK) and Canada established the “The Manhattan Project” to manufacture the first nuclear weapon. This project, which provided over 20,000 employments, cost \$2 billion US dollars (equivalent of \$25 billion US dollars as at 2012); was coordinated by the United States Army Corps of Engineer under the administrative control of Brigadier General Leslie Groves and its scientific research directed by the famous American physicist Robert Oppenheimer.⁴⁵²

On 16 July 1945 the government of the United States successfully tested its first nuclear bomb with the code-name “Trinity” in *Alamogordo* desert in New Mexico. This bomb yielded 20,000 tonnes of Trinitrotoluene (TNT). Essentially, the date of this test historically marks the beginning of the nuclear age. The nuclear arm race is the exhibition of hegemony in nuclear warfare between the United States of America and the defunct Soviet Union and their respective military alliances from other States.⁴⁵³

⁴⁵² Manhattan Project, New Word Encyclopaedia < <http://www.newwordenclopedia.org/entry> > accessed 08 February 2016

⁴⁵³ Ronald E. Powaski, *Return to Armageddon: The United States and the Nuclear Arms Race, 1981-1999* (Oxford University Press, 2000) 3

3.2.1 The Nuclear Age: Atomic and Hydrogen Bombing and Testing

The nuclear age was heralded with the atomic bombing of the cities of Hiroshima and Nagasaki in Japan by the United States of America during the final stage of the World War II. The United States detonated a uranium (atomic) bomb over the city of Hiroshima on 6 August 1945, killing over 140,000 people besides many other casualties associated with radiation related diseases arisen from the destructive bombing. In the same vein, America also exploded a plutonium bomb on Nagasaki on 9 August 1945, three days after the bombing of Hiroshima. In Nagasaki, an estimated 74,000 people were killed while many survivors suffered from various degrees of deformity.⁴⁵⁴

Following the devastating atomic nuclear bombing of Hiroshima and Nagasaki, the United Nations (UN) in its very first General Assembly resolution on 24 January 1946⁴⁵⁵ called for the complete elimination of nuclear weapons and as a result established the United Nations Disarmament Commission (UNDC) subsumed under the United Nations Security Council (UNSC) with a general mandate on nuclear disarmament discourse and questions.⁴⁵⁶

In spite of this UN resolution on nuclear disarmament, the defunct Soviet Union detonated the nuclear bomb code-named: “First Lighting” as its first test in August 29 1946 in Semipalatinsk in Kazakhstan.⁴⁵⁷ In a like manner, the United Kingdom carried out its first nuclear test at Montebello Islands off the coast of Western Australia and series of other nuclear weapon tests in Emu Field in South Australia in October 3 1952.⁴⁵⁸ Amidst the existence of a legal framework in terms of the UN resolution on nuclear disarmament, what is the legal implications of the defiance of the former Soviet Union and the United Kingdom in their nuclear tests? The reason is not far fetched, absence of enforcement mechanisms and coercive force of the law on nuclear disarmament.

Furthermore, the United States of America raised the tempo of the nuclear arms race by conducting the first hydrogen bomb test at Enewetak Atoll in the Marshall Islands in November 1 1952. This U.S. first hydrogen bomb test is said to be 500 times more powerful than the bomb used in bombing Nagasaki in Japan. Also, the U.S. exploded a 17-megaton hydrogen bomb code-named “Bravo” at Bikini Atoll in Pacific Ocean.

⁴⁵⁴ Joe Majerus, *The Decision to Employ Nuclear Weapons at Hiroshima and Nagasaki* (Anchor Academic Publishing, 2013) 33

⁴⁵⁵ United Nations General Assembly (UNGA) Resolution on the Establishment of a Commission to Deal with the Problem Raised by the Discovery of Atomic Energy (1946) UNGA1: A/RES1 (1), 24 January 1946

⁴⁵⁶ The United Nations General Assembly (UNGA) Resolution on the Establishment of the United Nations Disarmament Commission [UNDC] (1952) A/RES/502 (iv), 1952

⁴⁵⁷ M. Yamamoto et al, ‘Some Aspects of Environmental Radioactivity Around the Former Soviet Union’s Semipalatinsk Nuclear Test Site: Local Fallout Pu in Ust’ – Kamenogorsk District’ [2002] *Journal of Radioanalytical and Nuclear Chemistry* 252 (2), 373-394

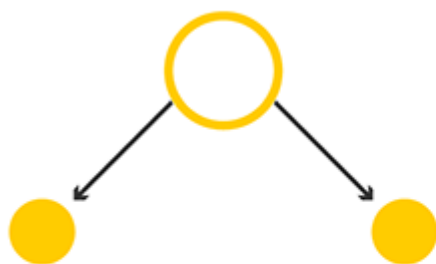
⁴⁵⁸ Rabbitt Sue Roff, ‘Blood Money: The Duty of Care to Veterans of UK Nuclear Tests’ [2002] *Journal of Medicine, Conflict and Survival* 18 (3), 311-322

This massive “Bravo” test polluted a Japanese fishing boat called “*Lucky Dragon*” and had adverse effects on the inhabitants of Rongelap and Ulrik.⁴⁵⁹

NUCLEAR VS. THERMONUCLEAR WEAPONS

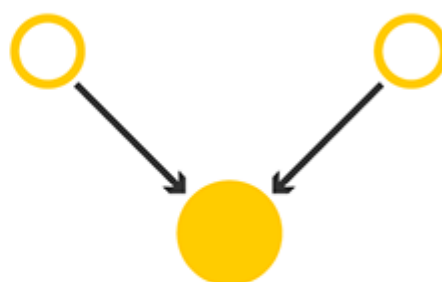
NUCLEAR (ATOMIC BOMBS)

Atomic bombs use fission — the splitting of a large atom into two smaller ones.

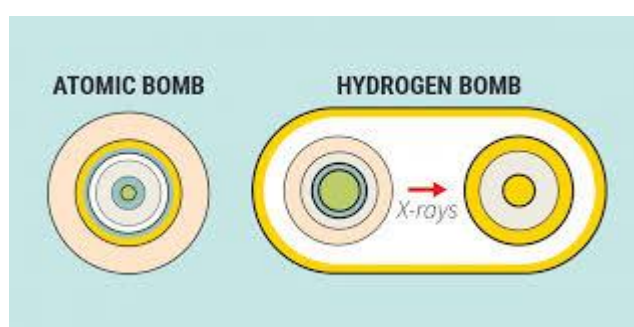


THERMONUCLEAR (HYDROGEN BOMBS)

More powerful hydrogen bombs use fusion — the fusing of two or more atoms into a larger one.



SOURCE USA TODAY research



Sources: www.google.co.uk/search=images of atomic+hydrogen bomb

As a result of the perceived horrific effects of nuclear weapons and the trend of continuous nuclear bombs detonation by some NWS, Bertrand Russell, Albert Einstein and other prominent scientists issued a manifesto on 9 July 1955, that warned of the impending danger of nuclear war and urged all governments to resolve disagreements

⁴⁵⁹ Preparatory Commission for the Comprehensive Nuclear Test Ban Treaty Organisation CTBTO < <http://www.ctbto.org/special/testing-times/1-november-1952-ivy-mike> > accessed 8 February 2016

peacefully.⁴⁶⁰ In line with this manifesto, the Campaign for Nuclear Disarmament (CND) was established in London in the United Kingdom and held its inaugural meeting on 17 February 1958.⁴⁶¹ Still on the basis of disarmament, the Antarctic Treaty that banned all nuclear tests was opened for signature on 1 December 1959 in Washington DC. This treaty is surprisingly brief but effective. It prohibits nuclear explosions and all military activities such as establishment of military bases or weapons testing.⁴⁶²

Contrary to expectations especially in the wake of the Antarctic Treaty which France is a signatory and the United Nations General Assembly (UNGA) resolution on nuclear disarmament, France exploded its first atomic nuclear bomb in the Sahara Desert on 13 February 1960. This atomic bomb had the yield of 60-70 kilotons. France periodically indulged in nuclear tests up till 1996 and moved the base of its tests to the South Pacific. As a surprise to world, the Soviet Union on 30 October 1961 detonated the largest and the most powerful bomb test ever. This bomb was a 58-megaton atmospheric nuclear weapon tagged the “Tsar Bomba”, conducted in Novaya Zemlya off Northern Russia.⁴⁶³ Obviously, this continuous periodic tests of France atomic bombs and the defunct Soviet Union successful conduct of “Tsar Bomba” without any international action undermine disarmament framework and process.

In October 16-29 1962, there was the Cuba Missile crisis when the United States of America (USA) made a blockade of Cuba for 13 days. The United States and the Soviet Union engaged in a tense political and military standoff for these 13 days over the installation of Soviet nuclear-armed missiles in Cuba just 90 miles from the shore of the US, discovered by the American surveillance aircraft in October 16 1962 that brought the world to the brink of nuclear war.⁴⁶⁴ Meanwhile, due to massive protests and demonstrations in Europe and America against nuclear testing, the Treaty Banning Nuclear Testing in the Atmosphere, Outer Space and Under Water, often abbreviated as either Partial Test Ban Treaty (PTBT), Limited Test Ban Treaty (LTBT) or Nuclear Test Ban Treaty (NTBT) was opened for signature in Moscow on 5 August 1963.⁴⁶⁵

Regardless of the emergence of the Nuclear Test Ban Treaty, China conducted its first nuclear test on 16 October 1964 by exploding atomic bombs at the Lop Nor testing site in Sinkiang Province. A totals of 45 nuclear weapon tests were conducted by China: 23 atmospheric tests and 22 underground tests.⁴⁶⁶ China nuclear bomb

⁴⁶⁰ Sandra Ionno Butcher, *The Origins of the Russell-Einstein Manifesto* (Pugwash History Series, Pugwash Conferences on Science and World Affairs, Cardinal Press, 2005) 5

⁴⁶¹ J. Burkett et al, ‘The Campaign for Nuclear Disarmament and Changing Attitudes Towards the Earth in the Nuclear Age’ [2012] *British Journal for History of Science* 45(4), 625-639

⁴⁶² The Antarctic Treaty, December 1 1959

⁴⁶³ Iain Scobble, ‘Discontinuance in the International Court: the enigma of the Nuclear Test Cases’ [1992] *ICLQ* 41(4), 808-840

⁴⁶⁴ Priscilla Robert, *Cuba Missile Crisis: The Essential Reference Guide* (ABC-CLIO LLC, 2012)

⁴⁶⁵ The Treaty Banning Nuclear Testing in the Atmosphere, Outer Space and Under Water (Partial Test Ban Treaty – PTBT), August 5 1963

⁴⁶⁶ Walter C. Clemens, ‘Chinese Nuclear Tests: Trend and Portends’ [1967] *The China Quarterly* 32, 111-131

testing lends credence to the ineffectiveness of the Nuclear Test Ban Treaty and also undermines nuclear disarmament mechanism.

As a result of the unabated nuclear bomb tests around the world by some States exhibiting military capability and political hegemony and superiority, the Treaty Prohibiting Nuclear Weapons in Latin America and the Caribbean (the Treaty of Tlatelolco), also known as the Latin America Nuclear-Weapon-Free-Zone (LANWFZ) was signed in Mexico City on 14 February 1967.⁴⁶⁷ The various countries in the Latin America and the Caribbean except Cuba unanimously came up with this treaty to declare their region to the world a nuclear-free-zone.

3.2.2 The Emergence of the Non-proliferation Era

On 1 July 1968, the Treaty on the Non-proliferation of Nuclear Weapons, generally referred to as the Non-Proliferation Treaty (NPT) was opened for signature.⁴⁶⁸ This a remarkable multilateral and international agreement among party States with the sole objective of preventing the spread of nuclear weapons and technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving complete nuclear disarmament. However, the treaty recognised China, France, Russia, United Kingdom and the United States as Nuclear Weapon States (NWS) and these States are also the five permanent members of the United Nations Security Council (UNSC), having undertaken legal responsibility for total nuclear disarmament. In spite of the legal responsibility for total nuclear disarmament by the NWS, disarmament efforts seem so slow and concept of non-proliferation of nuclear weapons tends to hold sway over nuclear disarmament.

Not being a signatory to the Non-proliferation Treaty (NPT), on 22 May 1974, India conducted its first nuclear test in an underground test at Pokhran in Rajasthan desert code-named “the Smiling Buddha.” The Indian government tactically explained it was a peaceful nuclear device test not weapon and it has the technological capability to build a nuclear bomb.⁴⁶⁹ On 22 September 1979, there was a nuclear detonation test over the South Indian Ocean off the Cape of Good Hope. This test was carried out by South Africa government with the logistic and diplomatic assistance of the State of Israel.⁴⁷⁰ Worthy of acknowledgement, the secret of Israeli nuclear programme was revealed by Mordechai Vanunu, an Israeli nuclear technician, in September 30 1986. This revelation made experts to deduce that Israel might have up to 200 nuclear warheads produced prior to the revelation.⁴⁷¹ However, the testings of nuclear bombs

⁴⁶⁷ The Treaty Prohibiting Nuclear Weapons in Latin America and the Caribbean (The Treaty of Tlatelolco, LANWFZ), February 14 1967

⁴⁶⁸ The Treaty on the Non-proliferation of Nuclear Weapons (NPT), July 1 1968

⁴⁶⁹ Christine C. Fair, ‘Learning to Think the Unthinkable Lessons from India’s Nuclear Tests’ [2005] India Review 4(1), 23-58

⁴⁷⁰ Preparatory Commission for the Comprehensive Nuclear Test Ban Treaty Organisation CTBTO < <http://www.ctbto.org/special/testing-times/1-november-1952-ivy-mike> > accessed 8 February 2016

⁴⁷¹ Israel’s Secret Nuclear Program, Global Research –Centre for Research on Globalization < <http://www.globalization.ca/globalresearch.org> > accessed 9 February 2016

by Indian and South African governments constituted a legal challenge to the effectiveness of the NPT.

On 12 June 1982, one million people assembled in New York City's Central Park in solidarity support for the Second United Nations Special Session on nuclear Disarmament.⁴⁷² This gathering was the largest peaceful rally and anti-war demonstration in history.⁴⁷³ In July 10 1985, the flagship of the Greenpeace fleet known as the Rainbow Warrior (codenamed "Operation Satanic") was sunk in the port of Auckland in New Zealand on its way to Murorua Atol to a protest against a French planned nuclear test by a special operation of France foreign Intelligence Services, the Direction Generale de la Securite Exterieur (DGSE). French government initially denied responsibility, but two French agents were captured and charged by the New Zealand Police. As the truth was unravelled, the French defence Minister Charles Hernu resigned over this scandal.⁴⁷⁴

On 6 August 1985 the South Pacific Nuclear-Free-Zone (SPNFZ) of Rarotonga, commonly known as the Treaty of Rarotonga came into force.⁴⁷⁵ The treaty prohibits the manufacturing, stationing, possession and testing of nuclear weapons within the borders of the South Pacific zone. As a concerted effort to curtail the nuclear arms race, the defunct Soviet Union and the United States of America on 8 December 1987 signed the Intermediate-Range Nuclear Force Treaty (INF Treaty) in Washington DC. This bilateral agreement is officially entitled: *The Treaty between the United States of America and the Union of the Soviet Socialist Republics on the Elimination of their Inter-mediate-Range and Short-Range Missiles*.⁴⁷⁶ While the efforts of the United States and the defunct Soviet Union are highly acknowledged in terms of arms control and nuclear non-proliferation, France, China and the United Kingdom that comprise of the five NWS were not part of the INF Treaty.

3.2.3 The Disarmament Age of the 21st Century

As a welcome development, in July 10 1991, the Republic of South Africa acceded to the Non-Proliferation Treaty. The South Africa government which publicly claimed to have manufactured six nuclear weapons have successfully implemented a disarmament process for the elimination of all its nuclear weapons.⁴⁷⁷ This gesture of the South African government demonstrates the peaceful existence of a State without recourse to nuclear deterrence programme. Is South Africa vulnerable to nuclear attacks as a result of giving up its nuclear weapons? Certainly not. The second remarkable event of the nuclear arms race in the 1990s was the December 15 1995 South East Asian Nuclear-Weapon-Free-Zone (SEANWFZ) Treaty commonly called the

⁴⁷² John Greyson, *The Peris of Pedagogy: The Works of John Greyson* (McGill_Queen's University Press, 2013) 103

⁴⁷³ Ibid

⁴⁷⁴ Heinz Duthel, *Global Secret and Intelligence Services II: Hidden Systems that Deliver Unforgettable Customer Service* (BoD – Books On Demand, 3rd edn, 2014) 113

⁴⁷⁵ The South Pacific Nuclear-Free-Zone (SPNFZ) Treaty of Rarotonga, 6 August 1985

⁴⁷⁶ The Treaty Between the United States of America and the Union of the Soviet Socialist Republic on the Elimination of their Inter-Mediate Range and the Short-Range Missiles, 8 December 1987

⁴⁷⁷ South Africa, Nuclear Threat Initiative (NTI) < [http:// www.nti.org](http://www.nti.org) >, accessed 9 February 2016

Treaty of Bangkok.⁴⁷⁸ The Treaty of Bangkok is a nuclear weapons moratorium agreement between the 10 South-east Asian member States.

Also crucial to the history of the nuclear arms race was the 11th April 1996 emergence of the African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty, also known as the Treaty of Pelindaba.⁴⁷⁹ Pelindaba is the South Africa main nuclear research centre serviced by the South African Nuclear Energy Corporation. 43 African nations signed this treaty in Cairo in Egypt, which prohibits the research, development, manufacture, stockpiling, acquisition, testing, control or stationing of nuclear explosive devices in the territory of parties to the treaty. In the same year (1st June 1996), Ukraine became a nuclear-weapon-free state by transferring the last inherited Soviet nuclear armament to Russia for decommission.⁴⁸⁰ In a similar manner, Belarus returned its last nuclear warheads to Russia for dismantlement in November 27 1996.⁴⁸¹ These States: South Africa, Ukraine, Belarus as well as Kazakhstan as pointed out in **Chapter 5, session 5.2** have all undertaken disarmament process. This implies that nuclear weapons is not only possible but both plausible and freely achievable.

Central to the legal concern and the general discourse on nuclear disarmament is the 8th July 1996 historic and Advisory Opinion of the International Court of Justice (ICJ) on the Legality of the Threat or Otherwise of the Use of Nuclear Weapons. The ICJ established that the threat or use of nuclear weapons generally run contrary to the tenets and principles of international law.⁴⁸² Still in 1996, the Comprehensive Ban Test Treaty (CTBT) was opened for signatures on 24 September.⁴⁸³ The CTBT is a multilateral treaty that was adopted by the United Nations General Assembly (UNGA) ban all nuclear explosions in all environments either for military or for civilian purposes.

The last episode of the nuclear arms race in the 1990s was the May 1998 India and Pakistan detonations of nuclear weapon tests. India conducted three underground tests, first of its kind after 24 years, one of which is a thermonuclear weapon. In response to the India tests, Pakistan also carried out six nuclear weapons subterranean explosions.⁴⁸⁴ In view of the global quest for nuclear disarmament, from the foregoing, the undercurrent is nuclear arms race which has also snowballed into the 21st century.

3.2.4 The Nuclear Arms Race of the 21st Century

As the world approach the 21st century, nuclear arms escalated with little progress on disarmament. However, the activities of the nuclear arms race in the 21st century

⁴⁷⁸ South East Asian Nuclear-Weapon-Free-Zone (SEAWFZ) Treaty (The Treaty of Bangkok), 15 December 1995

⁴⁷⁹ African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty, (Treaty of Pelindaba), 11 April 1996

⁴⁸⁰ Nuclear Disarmament Ukraine, Nuclear Threat Initiative (NTI) < [http:// www.nti.org](http://www.nti.org) >, accessed 9 February 2016

⁴⁸¹ Nuclear Disarmament Belarus, Nuclear Threat Initiative (NTI) < [http:// www.nti.org](http://www.nti.org) >, accessed 9 February 2016

⁴⁸² International Court of Justice (ICJ), Advisory Opinion on the Legality of the Threat or Use of nuclear Weapons, July 8 1996

⁴⁸³ Comprehensive Ban Test Treaty (CTBT), September 24 1996

⁴⁸⁴ Joseph P. Griffin and Dorothy J. Black, 'Development in U.S. Sanctions Policy Affect International Trade and Investment' [1998] ICCLR 9(7), 181-185

began with the Republic of North Korea conducting nuclear test in October 9 2006. The government of North Korea publicly announced its successful conduction of its first nuclear test and making it the total of 8 States that have detonated nuclear weapons as tests. On 25 May 2009, North Korea also exploded nuclear weapons as its second test.⁴⁸⁵ Following the same trend, in February 12 2013, North Korea exhibited its nuclear ambition and demonstration of nuclear weapon superiority by conducting a miniaturised hydrogen bomb test as its third nuclear weapon tests, aimed at intimidating other nations especially its South Korean neighbour.⁴⁸⁶ On 6 January 2016, North Korea repeated this same detonation as its fourth nuclear weapons test. All these four North Korea nuclear testing actions that elicited international condemnation and sanctions are conducted underground.

In defiance of international condemnations and the United Nations sanctions, North Korea government from October 2006 till September 2017 have successfully conducted six nuclear weapons tests including Intercontinental Ballistic Missile (ICBM) and Hydrogen bomb claiming of reaching the United States mainland.

3.2.5 Continuing Efforts of the 21st Century to Disarmament

Remarkably, on 30 April 2007, the International Campaign to Abolish Nuclear weapon (ICAN) was launched in Vienna, Austria. ICAN is an organised global campaign coalition advocating for the disarmament of nuclear weapons. Furthermore, in continuing efforts in finding lasting solution to nuclear arms race and nuclear disarmament, the government of Norway hosted the very first inter-governmental conference to examine the humanitarian impacts of nuclear weapons on 4-5 March 2013.⁴⁸⁷

This conference brought together about 128 States represented by their diplomats and they exploit core issues associated with nuclear disarmament in the light of humanitarianism. On 14 February 2014, the Mexican government hosted the second phase of the conference on the Humanitarian Impact of Nuclear weapons. This phase of the conference concluded that diplomatic process should be introduced in the nuclear weapon disarmament discourse. More so, the same conference on the Humanitarian Impact of Nuclear Weapons was hosted in Vienna, Austria on 9 December 2014. In this conference, Austria made a challenging pledge to promote efforts aimed at stigmatisation, prohibition and elimination of nuclear weapons.⁴⁸⁸

3.3 The Use and the Horrific Devastation of Nuclear Weapons in the Second World War

During the World War II (1939-45), The United States B-29 bomber named Enola Gay deployed and dropped the first atomic bomb code-named “Little Boy” on the Japanese

⁴⁸⁵ Lisa Tabassi, ‘The Nuclear Test Ban: Lex Lata or DeLege Ferenda?’ [2009] JC&SL 14(2), 309-352

⁴⁸⁶ North Korea’s Third Nuclear Test, Centre for Strategic & International studies (CSIS) - < <http://www.csis.org/publication/north-korea-third.nuclear-test>

⁴⁸⁷ Eric Wey, Don’t Bank on the Bomb: International Campaign to Abolish Nuclear Weapons, October 2013’ [2013] Journal of Arms Control Today 43 (10), 6

⁴⁸⁸ Eric Wey, Don’t Bank on the Bomb: International Campaign to Abolish Nuclear Weapons, October 2013’ [2013] Journal of Arms Control Today 43 (10), 6

city of Hiroshima at approximately 8:15am in August 6 1945, instantaneously killing about 80,000 inhabitants, wiping out 90% of the city and tens of thousands more afterward dying of radiation exposure. Three days later, on 9 August 1945, the U.S. B-29 named Block's Car dropped another plutonium implosion bomb code-named "Fat Man" on the city of Nagasaki that led to the death on estimated 40,000 citizens.⁴⁸⁹

The bombing of these two cities occasioned by the Executive Order of the American President Harry S. Truman not only compelled Emperor Hirohito to acquiesce Japan's unconditional surrender but remain the only usage of nuclear weapons in world history.⁴⁹⁰ President Truman's order of America to use nuclear weapons against the defenceless population of the Japanese cities of Hiroshima and Nagasaki remains one of the most disproportionated use of lethal weapons in the history of mankind.

The perennial question of moral and strategic ambiguity embedded in the use of the atomic bombs on Japan elicits contemporary controversies and debates associated with the inherent dangers of nuclear weapons and their proliferations. Central to the nuclear weapons discourse is the legal concern and the position of the law on the acquisition or the use of nuclear weapons. Nuclear weapons and their use are impliedly prohibited in belligerency and warfare under existing International Humanitarian law (IHL) and customary international law. IHL has specified an approach to the use of weapons in warfare. The use of weapons that cause widespread, long term and catastrophic damage to human and the natural environment is highly outlawed.⁴⁹¹

However, the carnage of incendiary bombing of Hiroshima and Nagasaki clearly violates the principles of IHL. The city of Hiroshima during the World War II was Japan's military headquarters and a major port, thereby made it a strategic target of the United States. The explosion of the "Little Boy" bomb was 1,900 feet above the city centre. The Crew members of the "Enola Gay" bomber jet used for the bombing of Hiroshima witnessed a thick fast rising smoke with intense spring of fires. The intensity of the temperature that covered the vicinity and the air, formed a fireball about 840 feet in diameter which was calculated to reach over a million degree Celsius.⁴⁹²

Within the duration of a second, the fireball which was seen more than five miles away was said to have exceeded the brightness of the sun tenfold. The wave of the explosion smashed windows for a distance as 10 miles and the impact was felt as long as 37 miles. Consequently, more than two-thirds (2/3) of the houses in Hiroshima were destroyed. Beyond the destruction of Hiroshima's houses, hundreds of fires lighted by the thermal pulse joined to generate firestorm that incinerated everything with a radion of 4.4 miles of ground zero. Hiroshima was covered under thick churning foam of

⁴⁸⁹ Mark Rhyn 'Hiroshima and Nagasaki Bombing of (August 6 and 9, 1945)' in *World War II: The Essential Reference Guide*, Priscilla Roberts (edt), (ABC-CLIO, LLC, 2012) 115 - 118

⁴⁹⁰ Ibid

⁴⁹¹ Protocol Additional to the Geneva Convention of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I 8 June 1977, art 35(3))

⁴⁹² Mark Rhyn 'Hiroshima and Nagasaki Bombing of (August 6 and 9, 1945)' in *World War II: The Essential Reference Guide*, Priscilla Roberts (edt), (ABC-CLIO, LLC, 2012) 115 - 118

flames and smoke that made Captain Robert Lewis, the co-pilot to exclaim “My God, what have we done?”⁴⁹³

The chaotic condition of Hiroshima was made worst 30 minutes after the bombing by a torrential rain fall. This “black rain” as it is termed was full of dust, dirt, and soot with very many radioactive elements that sucked up into the air by the explosion. This heavy “black rain” caused serious contamination even in places that were remote from the explosion. As a consequence of the Hiroshima’s bombing, radio and television stations, were off air, telegraph system stopped working, transportation services abruptly stopped functioning, and military installations were shattered.⁴⁹⁴

Like Hiroshima, the aftermath of the bombing of Nagasaki was horrific. About fifty percent of Nagasaki was destroyed. Hospitals were utterly demolished and as a result, care for the casualties was impossible. Schools, churches, homes, public buildings and transportation were flattened.⁴⁹⁵ The primary target for the bombing of Nagasaki was Kokura city arsenal but on reaching there, the American Air Men discovered it was covered by serious ground haze and smoke. Two years after the horrific bombing of Nagasaki, vegetation grew at ground zero, Sesame stalks produced 33% more seeds but about 90% of such seeds are sterile, human genetic aberrations occurred. Birth defects, rapid high rate of cancer and tumours affected the citizens of Nagasaki for decades.⁴⁹⁶

These devastating impacts which have adverse effects more on the civilian population of the cities of Hiroshima and Nagasaki are blatant violation of Rule 14 - proportionality in attack under the principle of distinction of International Humanitarian Law. The rule of proportionality in attack is codified in Article 51(5)(b) of the the Additional Protocol I to the Geneva Convention and reiterated in Article 57(2)(a)(iii).⁴⁹⁷ In the same vein, the rule of proportionality in attack is also contained in both Protocol II and Amended Protocol II to the Convention on Certain Conventional Weapons.⁴⁹⁸ The Rule of proportionality in attack of Additional Protocol I of the Geneva Convention is read thus:

“Launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or combination thereof, which would be excessive in relation to concrete and direct military advantage anticipated, is prohibited”⁴⁹⁹

⁴⁹³ Shoji Sawada, ‘Cover-up of the Effects of Internal Exposure of Residual Radiation from Atomic Bombing of Hiroshima and Nagasaki’ [2007] *Journal of Medicine, Conflict and Survival* 23 (1), 58 - 74

⁴⁹⁴ Ritsu Sakata et al, ‘Long-Term Effects of the Rain Exposure Shortly after the Atomic Bombings in Hiroshima and Nagasaki’ [2014] *Radiation Research* 182 (6), 599 -606

⁴⁹⁵ Ibid

⁴⁹⁶ Ibid

⁴⁹⁷ Protocol Additional to the Geneva Convention of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I 8 June 1977

⁴⁹⁸ The 1980 Convention on the Prohibition or Restriction on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or Have Indiscriminate Effects (Convention on Certain Conventional Weapons – CCW), Protocol II art (3)3, Amended Protocol II, art 3(8)

⁴⁹⁹ Protocol Additional to the Geneva Convention of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I 8 June 1977, art 51(5)(b)

International Humanitarian Law and Human Rights Law are applicable to nuclear weapons, as they are to chemical and biological weapons, Anti-personnel Landmines and cluster munitions. Applying International Humanitarian Law implies enforcing the result of disarmament mechanisms and demands highly effective outcomes that would compel the NWS and other nuclear weapon-possessing States to comply with dictates of the law.

The devastating bombings of Hiroshima and Nagasaki as well as any potential use of nuclear weapon clearly violate Rule 70 of the principle of distinction of International Humanitarian Law. Rule 70 says, “The use of means and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering is prohibited.”⁵⁰⁰ This prohibition is contained in numerous international treaties and instruments, including the St. Petersburg Declaration⁵⁰¹ and The Hague Declarations and Regulations.⁵⁰² The chemical and biological weapons prohibition stipulated in the Geneva Gas Protocol originally motivated this rule. The reaffirmation of this rule in more recent treaties such as the Additional Protocol I of the Convention of Certain Conventional Weapons and its Protocol II and Amended Protocol II,⁵⁰³ the Ottawa Convention Banning Anti-personnel Landmines⁵⁰⁴ and the Status of International Criminal Court⁵⁰⁵ all underscore its strong validity.

3.4 The Use of Nuclear Weapons in Warfare and the Principles of International Humanitarian Law (IHL)

Since the emergence of the nuclear arms race, the detonations of nuclear weapons has been denounced as contrary to humanitarian law and values. It is impossible to delineate how nuclear weapons would be compatible with the principles of International Humanitarian Law (IHL). International Humanitarian Law also known as Law of War or Law of Armed Conflicts, are rules rooted in treaties, customs and general principles of law. These international humanitarian principles of law, which are set out in multilateralism, contribute to military manual on the law of armed conflict and the wide range of States practice.⁵⁰⁶

Universally, there basic rules applicable as matters of customary international law and are consequently binding on all States irrespective of a State’s adherence to a particular treaty. IHL applies generally to all belligerent States, and aims to avoid cruelty, necessary to prevent suffering and destructions and ultimately to preserve the possibility of establishing an immediate and lasting peace.⁵⁰⁷

⁵⁰⁰ Ibid, art 35(2)

⁵⁰¹ 1868 Declaration of St Peterburg

⁵⁰² The 1899 Hague Declaration Concerning Asphyxiating Gases; Hague Regulations 1899, art 23(e) and Hague Regulations 1907

⁵⁰³ Preamble of the 1980 Convention on the Prohibition or Restriction on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or Have Indiscriminate Effects (Convention on Certain Conventional Weapons – CCW),

⁵⁰⁴ Preamble to the 1997 Ottawa Convention on Anti-Personnel Mines

⁵⁰⁵ 1998 International Criminal Court (ICC) Statute, art 8(2)(b)(xx)

⁵⁰⁶ Malcolm D. Evans, *International Law* (Oxford University Press, 5th edn, 203) 790

⁵⁰⁷ Malcolm D. Evans, *International Law* (Oxford University Press, 5th edn, 203) 790

Customarily, the law regulating warfare is categorised into twofold: the law on the use of force – when States are compelled to engage in warfare (*jus ad bellum*) and the law on armed conflict – how war is conducted (*jus in bello*).⁵⁰⁸ For States to engage in war, they must demonstrate there is necessity for such a war, meaning, all other means of peaceful settlement have been exhausted and war is the only option of last resort. Necessity in the engagement in war is analogous to the conduct of military necessity. As codified in the Lieber Code: military necessity is grasped by modern civilised nations as consistency in necessity of those measures which are indispensable for the securing the ends of war and which also are lawful according to the modern law and usage of war.⁵⁰⁹ The concepts of *jus ad bellum* and *jus in bello* run contrary to the doctrine of nuclear deterrence upheld by NWS to justify their rationale behind their nuclear armaments. The strategic aim of nuclear deterrence is to deter potential nuclear attacks for the prevention of at least a corresponding nuclear retaliation.

Following the concept of military necessity, the principle of proportionality is a *conditio-sine-qua-non* (necessary condition) in warfare. The principle of proportionality originates from an understanding of warfare as a catastrophic condition that requires the regulation of the law. Proportionality gauges the necessity of military action against the collateral damage, civilian objects and the environment caused by an attack. Not that it requires disproportionate action to the expected military advantage. Proportionality as a principle of IHL is codified in Article 51(5) (b) of Additional Protocol I and reaffirmed in Article 57.⁵¹⁰

In belligerency, proportionality can be evaluated in terms of both *jus ad bellum* (when countries can go to war) and *jus in bello* (how is war conducted). In their submission to the International Court of Justice (ICJ) in the *Nuclear Weapons case and Nuclear Weapons and World Health Organisation (WHO) case*,⁵¹¹ a good number of States, including States not, (or not at that time) party to the Additional Protocol I, invoked the principle of proportionality in their assessment of whether an attack with nuclear weapons would violate International Humanitarian Law. In its Advisory Opinion on the Legality of the use by a State of Nuclear Weapons in Armed Conflict, the ICJ acknowledged the applicability of the principle of proportionality, emphasising that “respect for the environment is one of the elements that go toward assessing whether an action is in conformity with the principles of necessity and proportionality”.⁵¹²

Also, the ICJ in this *Nuclear Weapons case* addressed the principle of proportionality with specific allusion to the question whether proportionality could be applied to proscribe the use of nuclear weapons in war. Granted that nuclear war is associated with catastrophic devastation, most commentators will subscribe to the fact that the

⁵⁰⁸ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 318

⁵⁰⁹ General Orders No. 100: The Lieber Code (Instruction for the Government of Armies of the United States in the Field) April 24 1863 [Prepared by Francis Lieber, promulgated as General Orders No. 100 by President Abraham Lincoln in April 24 1863]

⁵¹⁰ Protocol Additional to the Geneva Convention of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) June 8 1977

⁵¹¹ International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996

⁵¹² International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996

principle of proportionality will mostly prohibits any use of nuclear weapons. However, the International Court of Justices adopted and maintained a balanced and qualified position “The Proportionality principle may . . . not in itself exclude the use of nuclear weapons in self-defence in all circumstance”.⁵¹³

Nevertheless, the ICJ clearly stated that it could not certainly conclude whether the threat or use of nuclear weapons would be lawful or unlawful in the case of extreme necessity of self-defence, in which the very survival of a State would be at grave risk. Accordingly, Judge Fleischhauer of the ICJ succinctly expresses thus:

*Although recourse to nuclear weapons is scarcely reconcilable with humanitarian law applicable in armed conflict . . . recourse to such weapons would remain a justified legal option in an extreme situation of individual or collective self-defence in which the threat or use of nuclear weapons is the last resort against an attack with nuclear, chemical or bacteriological weapons or otherwise threatening the very existence of the victimized State.*⁵¹⁴

In the light of the judgement of this case, the ICJ exhaustively examined how proportionality can inhibit the right of States to self-defence in the case of *the United States and the Nicaragua*⁵¹⁵ as well as the case of *Congo V. Uganda*⁵¹⁶ and the *Oil Platforms case of Iran V. the United States*.⁵¹⁷ Article 51 of the United Nations (UN) Charter stipulates that States can act in self-defence if armed attack is taken against them.⁵¹⁸ To determine the lawfulness of self-defence, the ICJ examines whether a war conducted in self-defence is lawful when viewed in the reasons that caused it (*jus ad bellum*) and whether the rule of proportionality was observed during the conduct of the war (*jus in bello*).⁵¹⁹

With reference to an attack against a State with nuclear weapons, what other circumstances can warrant the use of nuclear weapons for self-defence of a State? The answer to this question seems to have been provided by Judge Higgins of the ICJ: a State must desire to prevent the infliction of vast and severe suffering on its own population and there is no other available way to prevent a military attack.⁵²⁰ In acknowledging the difficulty associated with the application of the principle of proportionality to the use of nuclear weapons, other judges of the ICJ considered certain practical applications of nuclear weapons in conformity with the principle of proportionality.

Judge Schwebel upheld that the application of the principle of proportionality to the use of nuclear weapons is difficult and the cases “at the extremes are relatively clear; cases closer to the centre of spectrum of possible uses are less so.”⁵²¹ Consequently,

⁵¹³ International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996

⁵¹⁴ Ibid, Separate Opinion of Judge Fleischhauer id 308, para 5

⁵¹⁵ *Military and paramilitary Activities in and Against Nicaragua (Nicaragua v U S)* [1986] ICJ Report 14

⁵¹⁶ *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v Uganda)* [2000] ICJ

⁵¹⁷ *The Case Concerning Oil Platforms (Islamic Republic of Iran v United States)* [2003] ICJ

⁵¹⁸ Charter of the United Nations, October 24, 1945, art 51

⁵¹⁹ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 328

⁵²⁰ International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996, Dissenting Opinion of Judge Higgins id 588, para 21

⁵²¹ *Weapons in Armed Conflict*, July 8 1996, Dissenting Opinion of Judge Schwebel, id 320

the use of nuclear weapons that will lead to “the death of many millions in indiscriminate inferno”⁵²² is against the law. Furthermore, “the use of the tactical nuclear weapons against discrete military or naval targets so situated that substantial civilian casualties would not ensue”⁵²³ and would not be against the law.

In the same vein, Judge Weeramantry dismissed any kind of proportionality in the use of nuclear weapons in armed conflict. In his dissenting opinion, he tenaciously opined that: with “nuclear war, the quality of measurability ceases. Total devastation admits of no scales of measurement. We are in territory where the principle of proportionality becomes devoid of meaning”.⁵²⁴

Arguably, the use of nuclear weapons in warfare should be *ispo facto* be unlawful since there is much efforts and emphasis to limit the killing and suffering in conventional warfare and to regulate conventional weaponry. More so, for an action of self-defence to be proportionate it necessary implies that it must be restricted to repelling an attack and this position appears to support restrain in engaging in self-defence with intuitive sense of proportionality.

The legitimacy of engaging in warfare in response to proportionality must be judged based on the requirement of symmetry between the mode of the attack and the reaction to the attack. *Jus ad bellum* and *jus in bello* are distinct facts and facets of warfare. The politics of *jus ad bellum* (why a State should engage in warfare) should not override the legitimacy of *jus in bello* (how war is conducted).⁵²⁵

In accordance with State practice, the prohibition on destroying or seizing property of adversary or attacking State unless required by imperative military necessity equally applies to the natural environment. The applicability of this rule to the natural environment is stipulated in the Guidelines on the Protection of the Enviroment in Times of Armed Conflict.⁵²⁶ This prohibition is adopted and supported by military manuals,⁵²⁷ national laws and official statements. The wanton destruction of the natural environment caused by the atomic bombings of Hiroshima and Nagasaki amounted the violation of this rule of “... imprerative military necessity.”

The 1996 International Court of Justice Advisory Opinion on the legality of the threat of use or otherwise of nuclear weapons posited that “respect for the environment is one of the elements that go to assessing whether an actions is in conformity with the principle of necessity.”⁵²⁸ Similarly, The Committee Established to Review the NATO Bombing Campaign against the Federal Republic of Yugoslavia concluded that the

⁵²² International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996, Dissenting Opinion of Judge Schwebel, id 320

⁵²³ Ibid

⁵²⁴ International Court of Justice (ICJ) Advisory Opinion on the Legality of the Use by a State of Nuclear Weapons in Armed Conflict, July 8 1996, Dissenting Opinion of Judge Weeramantry, id 515

⁵²⁵ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 336

⁵²⁶ Guidelines for Military Manuals and Instructions on the Protection of the Environment in Times of Armed Conflict – 30 April 1996 Article, International Review of the Red Cross, No 311

⁵²⁷ Military manuals of Australia, Nicaragua and the United States of America

⁵²⁸ International Court of Justice (ICJ) Advisory Opinion on the Legality of the threat of Use or Otherwise of Nuclear weapons 8 June 1996, para 62

environmental impact of the bombing was “best consider from the underlying principles of the law of armed conflicts such as necessity and proportionality.”⁵²⁹

Consequently, in the Fourth General Convention, extensive destruction of property “not justify by military necessity is regarded as a grave breach of the law.”⁵³⁰ In 1992, the United Nations General Assembly in a resolution on the protection of the environment in times of armed conflict emphasised that “destruction of the environment by military necessity and carried out wantonly is at variant with existing international law.”⁵³¹ Also, the 1993 International Conference for the Protection of War Victims encouraged States to reaffirm as well as to ensure that the norms for international humanitarian law protecting the natural environment are respected.⁵³² Therefore, this implies that any potential use of nuclear weapons either advertedly or inadertedly will grossly violate the principle of imperative military necessity.

International Humanitarian Law does not advocate for any violence, it prohibit infliction of unnecessary suffering and superfluous injury. Though the determination of these terms are not explicit in conventional warfare, the devastation of the use of nuclear weapons in warfare would unimaginably caused unecesary suffering and superfluous injury not only to combantants but also to the vast majority of the civilian population. The Principle of proportionality tends to protect potential harm to the cilivian population such that when harm occurs, it should be commensurate or proportional to the military advantage. However, given the catastrophic consequences associated with the use of nuclear weapons, it is virtually impossible that the principle can be applied to override protection or create an exception in nuclear conflict as proportionality is only applied when strike is launched against a lawful military target. The effective of nuclear weapons is indiscriminate and it does not delineate military target.

3.5 Nuclear Fallouts and the Incidence of Global Nuclear Accidents: Imperative for Disarmament.

One of the most likely factors that constitute nuclear fall out is through nuclear weapons testing. Also, in modern time, the most likely way for nuclear fall out to occur is through an attack by terrorist groups. The easiest way a militia group with unbridled inclinations for violence to unleash havoc in a society situated by nuclear power plant is to attack the nuclear installations for radiological fallouts and the contamination of the environment. After the Mumbai terrorist attacks in 2008 and 2011, the Indian government put in place extra security measures to safeguard its nuclear power plants. The Additional Protocol I to the Geneva Conventions made provision for the prohibition of attacks on nuclear power stations:

Works or installations containing dangerous forces, namely dams, dykes, and nuclear electrical generating stations, shall not be made the object of attack, even where these objects

⁵²⁹ Committee Establish to Review the NATO Bombing Campaign Against the Federal Republic of Yugoslavia, Final Report

⁵³⁰ The 1949 Geneva Convetion Relative to the Protection of Civilian Persons in Time of War (Fourth Geneva Convention) art 147

⁵³¹ United Nations General Assembly Resolution A/RES/47/37 – Protection of the Enviroment in Times of Armed Conclct, 9 Febuary 1993

⁵³² Final Declaration of the International Conference for the Protection of War Victims, Geneva, 30 August – 1 September, 1993

are military objectives, if such attack may cause the release of dangerous forces and consequent severe losses among the civilian population. Other military objective located at or in the vicinity of these works or installations shall not be made the object of attack if such attack may cause the release of dangerous forces from the works or installation and consequent severe losses among the civilian population.⁵³³

However, according to the International Atomic Energy Agency (IAEA), nuclear and radiation accident is clearly described as “an event that has led to significant consequences to people, the environment or the facility. Examples include lethal effects to individuals, large radioactivity release to the environment, or reactor core melt.”⁵³⁴

The consequence of nuclear accidents has been a subject of endless controversy ostensibly since the construction and operation of the first nuclear reactor known as Chicago Pile-1 (CP-1) in 1942 and dismantled in 1954.⁵³⁵

Historically, there have been 99 recorded global nuclear accidents at nuclear power plants. 56 out of the 99 nuclear accidents happened in the United States of America.⁵³⁶ Amongst the deadly global nuclear accidents are: the SL – 1 accident (1961),⁵³⁷ the Three Mile Island accident (TMI - 2) (1979),⁵³⁸ the Chernobyl disaster (1986),⁵³⁹ and the Fukushima Daiichi nuclear disaster (2011).⁵⁴⁰ Similarly, nuclear-power submarine core meltdown and mishaps include: the K – 19 (1961), K -11 (1965), K – 27 (1968), K -140 (1968), K – 429 (1970), K -222 (1980), K – 314 (1985) and K – 431 (1985).⁵⁴¹

Some of the serious radiation accidents across the world are: the Kyshtym disaster in Russia,⁵⁴² Windscale fire Northwest England,⁵⁴³ radiotherapy accident in Costa Rica,⁵⁴⁴ radiotherapy accident in Zaragoza, Spain,⁵⁴⁵ radiation accident in Morocco,⁵⁴⁶

⁵³³ Protocol Additional to the Geneva Convention of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) June 8 1977, art 56 (1)

⁵³⁴ International Atomic Energy Agency (IAEA) and Nuclear Energy Agency (NE), *International Nuclear and Radiological Events Scale Users' Manual* (2008 edn) 184

⁵³⁵ Anabal L. Taboas, 'Restoration of the Site of the First Nuclear Reactor' [1997] *Environmental International* 23 (4), 565 - 585

⁵³⁶ Michael Quinlan, 'Nuclear Tests in the Subcontinent: Protects and Significance for the World' [199] *Int.Rel.* 14 (4), 1 - 4

⁵³⁷ Karl-Heinz Neebs, *The Radiochemistry of Nuclear Power Plants with Light Water Reactor* (Walter de Gruyter, 1997) 686

⁵³⁸ J. Samuel Walker, *A Nuclear Crisis in Historical Perspective: Three Mile Island* (University of California Press, 2004) 3

⁵³⁹ W. Scoot Ingram, *The Chernobyl Nuclear Disaster* (Fact on File Inc, 2005) 77

⁵⁴⁰ Koichi Nasegawa, 'Facing Nuclear Risks: Lessons from the Fukushima Nuclear Disaster' [2012] *International Journal of Japanese Society* 21 (1), 84 -91

⁵⁴¹ Gordon B. Greer, *A Tale of Two Birds* (iuniverse Inc, 2008) 94

⁵⁴² Richard L. Miller, *Under the Cloud: The Decades of Nuclear Testing* (Two-Sixty Press, 1991) 521

⁵⁴³ Frank R. Spellman and Melissa L. Stoudt, *Nuclear Infrastructure Protection and Homeland Security* (Rowman & Littlefield Publisher Inc, 2011) 8

⁵⁴⁴ Michael L. Greenberg, *Encyclopaedia of Terrorist, Natural and Man-Made Disasters* (Jones and Bartlett Publishers, 2006) 135

⁵⁴⁵ Igor A. Gusev et al, *Medical Management of Radiation of Accidents* (CRS Press, 2nd 2001) 75

⁵⁴⁶ *Ibid*, 607

Goiania accident in Brazil,⁵⁴⁷ radiation accident in Mexico City,⁵⁴⁸ radiotherapy unit accident in Thailand⁵⁴⁹ and the Mayapuri radiological accident in India.⁵⁵⁰ According to the International Atomic Energy Agency, a nuclear and radiation accident can be described as any event that lead to significant consequences on people, environment or facilities⁵⁵¹. This may include lethal effects to individuals. However, radiotherapy accidents are errors or poor performance of radiotherapy which usually have severe consequences on patients. Thus, it is the effects of radiation accident that leads to radiotherapy.

Nevertheless, between the durational frame of 16 July 1945 and September 1992 (47 years) the United States of America continuously ran and maintained the programme of enthusiastic nuclear explosives testing,⁵⁵² with a unilateral moratorium exclusion of November 1958 to September 1961. This unilateral U.S moratorium was predicated on the US, UK, and the defunct USSR informal moratorium observance agreement.⁵⁵³ By official reckoning and documentation, the United States alone conducted a total of 1,054 nuclear tests⁵⁵⁴ and the launching of two nuclear attacks, (the atomic bombing of Hiroshima and Nagasaki).

More than 100 of the U.S nuclear detonations were carried out in the Pacific Ocean,⁵⁵⁵ over 900 nuclear explosions were conducted at the U. S. Nevada nuclear test site,⁵⁵⁶ 23 tests at Bikini Atoll⁵⁵⁷ and others on various sites in Alaska, Colorado, Mississippi, and New Mexico.⁵⁵⁸ Prior to November 1992, the bulk of the American nuclear tests were atmospherically conducted, (above the ground).⁵⁵⁹ Upon acceding to the Treaty Banning Nuclear Tests in the Atmosphere, in Outer Space and Under Water, abbreviated as the Partial Test Ban Treaty (PTBT), Limited Test Ban Treaty (LTBT) or Nuclear Test Ban Treaty (NTBT) in August 1963, all American nuclear testing were restrained to underground for the prevention of the dispersion of nuclear fallout.⁵⁶⁰

The continuous United States conduct of atmospheric nuclear testing during the aforementioned period hazardously exposed a vast majority of its population to nuclear fallout. The ascertainment of the exact estimate of people and the exact impacts has been fraught with medical uncertainty. Meanwhile, many Americans

⁵⁴⁷ Anthony B. Mickelson, *Medical Consequences of Radiological and Nuclear Weapons* (Borden Institute, 2012) 191

⁵⁴⁸ Andre Richard et al, *CBRN Protection: Managing the Threat of Chemical, Biological, Radioactive, and Nuclear Weapons* (Wiley-VCH Verlag & Co., 2013)

⁵⁴⁹ Igor A. Gusev et al, *Medical Management of Radiation of Accidents* (CRS Press, 2nd 2001) 292

⁵⁵⁰ Ashton Q. Action, *Issues in Applied Physics* (Scholarly Edition Publishers, 2013)

⁵⁵¹ AO Adede, *The IAEA Notification and Assistance Conventions in Cases of a Nuclear accidents: Landmarks in the Multilateral Treaty-Making Proces* (Graham & Trotman Limited 1987) 203

⁵⁵² Wayne LeBaron, *America's Nuclear Legacy* (Nova Science Publishers Inc., 1998) 24

⁵⁵³ April Carter, *Success and Failure in Arms Control Negotiations* (Oxford University Press, 1989) 51

⁵⁵⁴ Sarah J. Diehl and James Clay Moltz, *Nuclear Weapons and Non-proliferation* (ABC-CLIO, 2002) 208

⁵⁵⁵ Wayne LeBaron, *America's Nuclear Legacy* (Nova Science Publishers Inc., 1998) 24

⁵⁵⁶ Wayne LeBaron, *America's Nuclear Legacy* (Nova Science Publishers Inc., 1998) 37

⁵⁵⁷ Ibid, 24

⁵⁵⁸ Jose Collazo, *God Does Exist No More Nuclear Test and More* (Xlibris Corporation) 56

⁵⁵⁹ Charles S. Shapiro, *Atmospheric Nuclear Tests: Environmental and Human Consequences* (Springer, 1994) 11

⁵⁶⁰ Jozef Goldblat and David Cox, *Nuclear Weapon Tests: Prohibition or Limitation?* (oxford University Press, 1989) 132

especially the farmers and the citizens' residence in the downwind cities of Nevada Test Site as well as U.S. military workers at miscellaneous tests, sued the American government for compensation and recognition of their exposure to the hazards of nuclear fallout.⁵⁶¹

Consequently, this led to the successful passage of the Radiation Exposure Compensation Act (RECA) of 1990 that provides for a procedural filing of compensation claims in respect to nuclear testing and for the employers of nuclear weapons facilities.⁵⁶² According to official record of the Civil Division of the United States Department of Justice, over \$1.4 billion has been paid in compensation with over \$600 million was allocated to the downwind dwellers.⁵⁶³

In the same vein, The United States government appropriated funds in 1964 to compensate the Marshall Islands victims who were exposed to the most disastrous nuclear fallout incident from the America nuclear testing programme of March 1 1954 code-named "Castle Bravo" at the Bikini Atoll in Marshall Islands. Following this episode, the Marshallese government created the Marshall Islands Nuclear Claims Tribunal in 1988 to represent the interest of the affected Marshallese people claiming compensation from the American government.⁵⁶⁴

The "Castle Bravo" an operation of American nuclear tests designed to develop deliverable thermonuclear weapons led to the detonation two and a half times magnitude than expected, reaching a yield of 15 magatons as result of technical error. The radioactive fallout seriously polluted the Japanese fishing vessel known as "Lucky Dragon", which was sailing a long distance away of 145 kilometres downwind from ground zero. The 23 Japanese fishermen aboard the "Lucky Dragon" suffered from serious radiation poisoning that led the death of one crew member.⁵⁶⁵

This incident of the "Castle Bravo" which is the largest nuclear weapon test ever conducted by the United States resulted in a deep diplomatic row between the United States and Japan that elicited international criticism of nuclear testing. The radioactive fallout from the test spread wider than 11,000 square kilometres. The traces of the radioactive materials were identified in Australia, India, Japan, the United States, and Europe.⁵⁶⁶

The United States was one of the countries that quickly signed the Partial Test Ban Treaty (PTBT) in 1963 and the very first nation to sign the Comprehensive Nuclear Ban Treaty (CBTB) in 1996. Ironically, as 2017 at the time of writing this thesis it has yet to ratify the treaty, a pre-condition that is required for the CTBT to become enforceable international law.⁵⁶⁷

⁵⁶¹ Philip L. Fradtkim, *Fallout: An American Nuclear Tragedy* (Johnson Books Boulder)

⁵⁶² The United States Department of Justice – Radiation Compensation Act, 1990

⁵⁶³ Civil Division, United States Department of Justice FY 2009 Performance Budget Congressional Submission – February 2008

⁵⁶⁴ Preparatory Commission for the Comprehensive Nuclear Test Ban Treaty Organisation (CTBTO Preparatory Commission), Castle Bravo - 1 March 1954 <[http: www.ctbto.org](http://www.ctbto.org) > accessed 8 March 2016

⁵⁶⁵ Ibid

⁵⁶⁶ Ibid

⁵⁶⁷ Ibid

Given the potential of the legal validity of the CBTB and the global aspiration of total nuclear disarmament, there would be no need for any NWS or States with weapons programme to embark on nuclear testing. Therefore, the CBTB is both globally desirable and a prelude to nuclear disarmament. The aforementioned nuclear fallouts and the incidences of nuclear accidents are logically strong and valid arguments for nuclear disarmament as evidence exist that the vast majority of the global population are hazardously exposed to the consequences of such nuclear fallouts.

3.6 The Nexus between Nuclear Energy and Nuclear Weapons

The phrase nuclear energy which is interchangeably used as nuclear power has symbiotic interpretation with nuclear weapons since the beginning of the nuclear age. Globally, there are increasing numbers of people campaigning for nuclear weapons disarmament and at the same time these same people are in support of nuclear energy as a source of electricity generation. Ironically, protest demonstrations against nuclear weapons have occurred in the front yards of nuclear power plants and campaigns against nuclear industry and technology have been misdirected as campaigns against nuclear weapons.⁵⁶⁸

Nuclear technology uses the energy released by gashing the atoms of certain elements. The world produces as much electricity from nuclear energy today in comparison with the early years of nuclear power. Any State that has nuclear power plant has the potentiality of producing nuclear weapons. The nexus between nuclear energy and nuclear weapons dates back to the 1940s prior to the Second World War when nuclear technology was first developed in the famous “Manhattan Project”.⁵⁶⁹

The Non-proliferation Treaty (NPT) allows the transfer of nuclear technology and materials to State parties for the peaceful development of civilian nuclear energy programmes among signatories’ nations, in as much such nation(s) can prove beyond all reasonable doubt that their nuclear technology is not meant for the purpose of developing nuclear weapons. Article IV of the NPT stipulates that all the parties have the right to fully participate in the best possible exchange of equipment, materials, and scientific and technological information for the peaceful use of nuclear energy.⁵⁷⁰

Factually, the technology for producing nuclear energy is the same as the technology for producing nuclear weapons. The conversion from peaceful to non-peaceful use only entails enriching the Uranium or simply reprocessing the fuel rods into plutonium.⁵⁷¹ Uranium ore contains infinitesimally small (0.7%) of the fissile U235. Weapon grade uranium has to be enriched up to 90% of U235 (Highly Enriched Uranium – HEU), usually done through enrichment process.

There are up to Thirty-eight (38) uranium working facilities in sixteen (16) nations in the world today. However, plutonium is a product of the chain reaction in nuclear reactors. It is separated by reprocessing the “spent” fuel that is highly radioactive but

⁵⁶⁸ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 78

⁵⁶⁹ Ibid

⁵⁷⁰ Treaty on the Non-Proliferation on Nuclear Weapons, July 1, 1968, art IV

⁵⁷¹ Masahiko Asada, ‘The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

no longer usable in the reactor in the fuel rods. The United Kingdom as at 2013 had the estimated stockpile of 112 tonnes of civil plutonium, the biggest in the entire world and only 2 – 10 kg of plutonium is needed to produce a nuclear bomb. In terms of global security, nuclear energy and nuclear weapons are the epicentre of military and political angst.⁵⁷² One of the key challenges to nuclear disarmament is the NPT Provision of Article IV that allows nuclear energy for peaceful purpose. States tagged as Rogue or “Axis of Evil” clandestinely use nuclear energy to develop nuclear weapons.

3.7 The Institutional Perspective, Structure and Functions of the International Atomic Energy Agency (IAEA)

The IAEA is an autonomous global organisation and the United Nations official nuclear watchdog that reports annually to the United Nations General Assembly (UNGA). When the need arises, the IAEA reports to the United Nations Security Council (UNSC) in nuclear energy safeguards and security obligations in respect of instances of States’ non-compliance. The agency, which was established in July 29 1957,⁵⁷³ has its Secretariat in its headquarters in Vienna, Austria. Its regional offices are located in New York, United States; Toronto, Canada; Geneva, Switzerland; and Tokyo, Japan. The IAEA research laboratories are situated in Vienna and Seibersdorf, Austria; Trieste, Italy and the Principality of Monaco.⁵⁷⁴

The IAEA operational safeguards system is principally enshrined in Article XII of the IAEA Statute,⁵⁷⁵ as well as in the Information Circular (INFCIRC/66)⁵⁷⁶ applicable to any State that has concluded Safeguards Agreement. Also, Information Circular (INFCIRC/153) is the framework for: The Structure and Content of Agreements between the IAEA and States requirements in connection with the Treaty on the Non-proliferation of Nuclear Weapons (NPT)⁵⁷⁷ and the various nuclear weapons zones multilateral treaties, which are:

The treaty for the Prohibition of Nuclear Weapons in Latin American and the Caribbean (Treaty of Tlatelolco);⁵⁷⁸ the Southeast Asia Nuclear Weapon Free Zone Treaty (Treaty of Bangkok);⁵⁷⁹ the Africa Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba);⁵⁸⁰ the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga);⁵⁸¹ and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).⁵⁸²

⁵⁷² Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 81

⁵⁷³ TM Marini, ‘International Atomic Energy Agency’ [2011] Choice 48 (12), 2344

⁵⁷⁴ International Atomic Energy Agency (IAEA) – Secretariat <<https://www.iaea.org/about>>

⁵⁷⁵ The Status of the International Atomic Energy Agency (IAEA), art XII

⁵⁷⁶ International Atomic Energy Agency (IAEA) Information Circular (INFCIRC/66/Rev 2, 16 September 1968

⁵⁷⁷ International Atomic Energy Agency (IAEA) Information Circular (INFCIRC/153) on the Structure and Content of Agreements Between the Agency and States Required in Connection with the Treaty on the Non-proliferation of Nuclear Weapon (NPT), June 1 1972

⁵⁷⁸ The Treaty Prohibiting Nuclear Weapons in Latin America and the Caribbean (The Treaty of Tlatelolco, LANWFZ), 14 February 1967

⁵⁷⁹ South East Asian Nuclear-Weapon-Free-Zone (SEANWFZ) Treaty (The Treaty of Bangkok), 15 December 1995

⁵⁸⁰ African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty, (Treaty of Pelindaba), 11 April 1996

⁵⁸¹ The South Pacific Nuclear-Free-Zone (SPNFZ) Treaty of Rarotonga, 6 August 1985

⁵⁸² The Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABCC) 18 July 1991

“With respect to any Agency Project, or other arrangement where the Agency is requested by the parties concerned to apply safeguards, the Agency shall have following rights and responsibilities to the extent relevant to the project or arrangement: (1) To examine the design of specialized equipment and facilities, including nuclear reactors, and to approve it only from the view-point of assuring that it will not further any military purpose, that it complies with applicable health and safety standards and that it will permit effective application of the safeguards provided for in this article; (2) To require the observance of any health and safety measures prescribed by the Agency.”⁵⁸³

Functionally, it is only the IAEA that regulates civil nuclear installations and materials in the world. Its ultimate priority is the promotion of nuclear energy for peaceful purposes through developmental research and global practical application. Subsequently, the IAEA create and administer safeguards designs to ensure that such designs are not used to enhance military activities or actions.⁵⁸⁴

Upon the request of any Member State of the Nuclear Non-proliferation Treaty (NPT) and other international treaties on nuclear weapons, the IAEA apply safeguards to all consequential and miscellaneous activities; as well as mandatory comprehensive safeguards in Non-Nuclear Weapon States (NNWS) signatories to the NPT and sundry treaties on nuclear weapons.⁵⁸⁵

In the discharge of its functions, the IAEA carries out its responsibilities in accordance with the purpose and principles of the United Nations (UN) Charter to promote peace and international cooperation, in conformity with policies of the UN for spreading the awareness of global disarmament through safeguards.⁵⁸⁶

Under Safeguards Agreements, the IAEA has the mandate of verification. The agency inspectors customarily and regularly inspect nuclear facilities and records kept by States on the whereabouts of nuclear materials under their control; to monitor the IAEA installed instruments and surveillance equipment and ultimately to confirm the inventories of physical nuclear materials. These verification measures which are formal Safeguards Agreements between the IAEA and States ensure both the independent and international abiding commitments by governments towards the peaceful use of nuclear technology.⁵⁸⁷

With the awareness of nuclear technological capability, the Non-proliferation Treaty (NPT) negotiators relied on the cooperation of States with nuclear technology to allow the IAEA verify their nuclear facilities to ensure compliance. But this possibility has been under strain after the 1991 Gulf War. For example, the UN mandated IAEA team of inspectors discovered that Iraq had clandestinely worked on the development of nuclear weapons in undeclared facilities, located adjacent to the facilities that had been declared to the IAEA under the Comprehensive Safeguards Agreement

⁵⁸³ The Statute of the International Atomic Energy Agency (IAEA), art XII

⁵⁸⁴ Jorge Molales Pedra, ‘A New Organisation Structure for the International Atomic Energy Agency (IAEA): A Proposal for the Future’ [2015] Public Organisation Review 15(3), 353 - 364

⁵⁸⁵ The International Atomic Energy Agency (IAEA) NPT Comprehensive Safeguards Agreements, Current Status, 30 April 2015

⁵⁸⁶ The Status of the International Atomic Energy Agency (IAEA), art 3(5)

⁵⁸⁷ Tom Copper ‘Developing IAEA Safeguards: An Institutional Perspective on the State-Level Concept’ [2015] JC&SL 20(2), 169 - 193

(CSA).⁵⁸⁸ This is an obvious challenge not only to the IAEA but also to nuclear non-proliferation and disarmament.

There are four kinds and stages of inspection by the IAEA, they are: *Ad Hoc* inspection – this is initial nuclear report verification. Routine inspection – this is the common and regular routinely nuclear facilities verification. Special inspection – this is a supplementary IAEA inspections undertaken in the case of extreme necessity and the last is the safeguard inspection. The safeguard inspection is a verification visit to ensure, declare and confirm that nuclear facilities are in conformity with the safeguards design information.⁵⁸⁹

However, the IAEA Additional Protocol is more elaborate and has a well developed structure of safeguarding, that permits expanded inspections with the most developed and contemporaneous practice. As a legally binding document, the Additional Protocol provides assurances for both declared and undeclared nuclear sites. There is a Board of Governors (BOGs) of the IAEA saddled with the responsibility of approving procedural Safeguards Agreements and the supervision of safeguards activities.⁵⁹⁰

In practical procedure terms, when there is a case of non-compliance with safeguards commitment, the BOGs prevail upon the State in question to rectify the contentious issues. The process is not litigious. As a consequence, the Board decides on its referral on such issues to either or both the United Nations General Assembly (UNGA) or the United Nations Security Council (UNSC).⁵⁹¹ As at 2014, the IAEA Board of Governor have discovered and declared six States: Iran, Iraq, Romania, North Korea, Libya and Syria wanting in non-compliance with their Safeguards Agreement.⁵⁹²

Nevertheless, the IAEA has fundamental functional limitations. The IAEA is not obliged by the Non-proliferation Treaty (NPT) to safeguard the five officially recognised Nuclear Weapon States (NWS): China, France, Russia, United Kingdom and the United States of America;⁵⁹³ which are also permanent members of the UN Security Council. This obviously elicits irrefutable criticism of the right on nuclear entitlement, sovereign inequality rational and the democratic deficit in the UN structure. The fact that the preponderance of nuclear installations and fissionable nuclear materials are in abundance in these five States further calls into question the IAEA lack of mandate to safeguards in the NWS.

⁵⁸⁸ Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

⁵⁸⁹ Report, *Nuclear Safeguards and the International Atomic Energy Agency* (U.S. Government Printing Office, 1995) 80

⁵⁹⁰ Johanne Grondahl Glavind 'Bureaucratic Power at Play? The Performance of EU in the International Atomic Energy Agency' [2015] *European Security* 24(1), 19 - 35

⁵⁹¹ Daniel Joyner, *Interpreting the Nuclear Non-proliferation Treaty* (Oxford University Press, 2011) 90

⁵⁹² Jonathan Black-Branch and Dieter Fleck, *Nuclear Non-Proliferation in International Law* (Asser Press, Vol. 1, 2014) 97

⁵⁹³ Gabriela Kutting, *Conventions, Treaties and Other Responses to Global Issues – Volume 2* (EOLSS Publications, 2009) 69

Moreover, for more than two decades the IAEA did not discover the clandestine production of nuclear weapons by South Africa, Iraq and North Korea.⁵⁹⁴ Iraq and North Korea were Member States of both the NPT and IAEA; the inability of the IAEA to unravel their unbridled nuclear ambitions and nuclear facilities shrouded in secrecy, reveals the shortcomings of the Safeguards Agreements and the IAEA operational procedures. In European safeguards practice, the IAEA solely relied on the data and documentation of the European Atomic Energy Community (EAEC or Euratom).⁵⁹⁵ Thus, Euratom may have undue advantage of safeguarding their own territory with possibility of compromise. On the other, the Euratom has an expanded mandate relied upon by the IAEA.

The dual functional responsibility of the promotion of commercial use of nuclear energy and the safeguarding of peaceful use of nuclear energy of the IAEA generally known as “Atom for Peace”⁵⁹⁶ prioritises the Nuclear Weapon States (NWS) over the NNWS. There is no civil nuclear industrial trade without the IAEA/NPT safeguards requirement. The IAEA exclusion by the NPT not to safeguard the five Nuclear Weapon States (NWS) supports the view of many developing nations over the years that the NPT is an attempt of the nuclear ‘haves’ to subjugate the nuclear ‘have-nots.’ A notable deficiency of the IAEA is the lack of its role to nuclear disarmament. The IAEA ought to have had an expanded mandate on nuclear disarmament and duly enshrined in its Statute.

3.8 The Obstacles Pose by Nuclear-Proliferation to the Disarmament

The challenge and concern of nuclear proliferation is global and as such, an effective response to ensure nuclear non-proliferation must have multilateral approach. The formation of the various universally recognised nuclear-weapon-free-zones in the various regions of both the southern and northern hemispheres stemmed from the codification of Article VII of the Non-Proliferation Treaty (NPT).⁵⁹⁷ The NPT is a multilateral legal agreement aimed at de-nuclearising and de-legitimizing the spread of nuclear weapons through non-proliferation, disarmament and the peaceful use of nuclear energy. These three fundamental elements constitute the basis of negotiations between the NWS and the NNWS.

Article IX (3) of the NPT defines Nuclear Weapon States (NWS) as States that have “manufactured and exploded nuclear weapons or other nuclear explosive device prior to 1 January 1967.”⁵⁹⁸ Therefore, all other States regardless of their nuclear technological capabilities or nuclear weapon possession are considered as NNWS.

Regardless of the effect of the provisions of Article IX of the NPT which arguably polarise the nations of the world by legitimizing the status quo of five States: France, China, Russia, United Kingdom and the United States into the nuclear “haves” and the

⁵⁹⁴ Mohamed Elbaradei, *The Age of Deception: Nuclear Diplomacy in Treacherous Time* (Bloomsbury Publishing Plc, 2011) 170

⁵⁹⁵ Patricia D Park, *Energy Law and the Environment* (Taylor and Francis Inc, 2002) 154

⁵⁹⁶ Jeffrey R Fields, *State Behaviour and the Nuclear Non-proliferation Regime* (University of Georgia Press, 2014) 47

⁵⁹⁷ Treaty on the Non-proliferation of Nuclear Weapons (NPT), 1 July 1968, art VII

⁵⁹⁸ Ibid, art VII art IX (3)

rest of the world into nuclear “have nots”; the need to arrest the spread of nuclear fissionable materials and processes for nuclear disarmament was made possible in the contexts of the NPT. The aforementioned three fundamental elements of the NPT generally known as the three pillars explicitly explain the concept of the non-proliferation order.

Articles I, II, and III stipulate that the NWS are not allowed to transfer any nuclear weapon or material to any recipient, neither to assist, encourage, nor induce any NNWS to manufacture or acquire them.⁵⁹⁹ NNWS are prohibited from receive nuclear weapons from any transferor and are not allowed to manufacture nuclear weapons or acquire them.⁶⁰⁰ Also, NNWS are required to accept the IAEA Safeguards on all nuclear materials on their territory.⁶⁰¹

However, Article VI stipulates that all parties must pursue negotiations in good faith on effective measures towards the cessation of the nuclear arms race and to promote nuclear disarmament, and on a treaty on general and complete disarmament under strict international control.⁶⁰² However, the NPT does provide for the right of States to develop, produce and use nuclear energy for peaceful purposes in Article IV, in as much as such activities are in conformity with Articles I and II.⁶⁰³

Prior to the existence and the ratification of the NPT, the concept of non-proliferation and disarmament was envisaged in January 1946 by the very first United Nations General Assembly (UNGA) Resolution on the elimination of atomic weapons from national armaments.⁶⁰⁴ Non-proliferation as a global matter has received deserved attention in the recent past. In September 2009, the United Nations Security Council (UNSC) unanimously adopted Resolution 1887 that called for speedy efforts towards total nuclear disarmament.⁶⁰⁵ The facts that there are good numbers of existing UN resolutions on nuclear disarmament is in itself systematic of the limited effect of the law on nuclear disarmament.

In a joint effort to consolidate the non-proliferation of nuclear weapons, President Barack Obama of the United States of America and Dmitry Medvedev, the Prime Minister of Russia signed a legally binding New Strategic Arms Reduction Treaty in April 2010 as a replacement of the Strategic Arms Reduction Treaty I (START I) and the Strategic Offensive Reduction Treaty (SORT) also known as Moscow Treaty that were moribund in December 2009. The New START which became forcefully operational in February 2011 is organised in three tiers and has additional rights and obligations to the basic rights that were contained in the two expired treaties.

The global nuclear non-proliferation order witnesses the emergence of the Comprehensive Nuclear Ban Treaty (CTBT) of 1996 which has been signed by 183

⁵⁹⁹ Ibid, art I

⁶⁰⁰ Ibid, art II

⁶⁰¹ Ibid, art III

⁶⁰² Ibid, art VI

⁶⁰³ Ibid, art IV

⁶⁰⁴ The United Nations General Assembly (UNGA) Resolution I(I) – Establishment of a Commission to Deal with the Problem Raised by the Discovery of Atomic Energy, 24 January 1946

⁶⁰⁵ The United Nations Security Council (UNSC) Resolution 1887 – Non-Proliferation, 24 September 2009

countries but yet to be operational until all 44 States with substantial military and civilian nuclear technological capabilities ratify it. As at 2017, States that have yet to ratify the CTBT include: The United States, China, Israel, India, and Pakistan.

The CTBT is an expanded multilateral treaty aimed to replace the Treaty Banning Nuclear Weapon Test In The Atmosphere, In Outer Space And Under Water (the Partial Test Ban Treaty – PTBT or the Limited Test Ban Treaty – LTBT) of August 5 1963, a tri-lateral agreement (tripartite pact) by the U.S., U.S.S.R. and the UK;⁶⁰⁶ and the Treaty on the Limitation of Underground Nuclear Weapon (Threshold Test Ban Treaty - TTBT), a bilateral agreement between the U.S. and the U.S.S.R. in July 31 1974.⁶⁰⁷

To curtail the proliferation of unnamed nuclear weapons delivery system, the Missile Technology Control Regime (MTCR) was formed in April 1987 by the G7 States of Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.⁶⁰⁸ The MTCR whose membership later grew to 34 countries in 2001 was supplemented in 2002 by the International Code of Conduct against Ballistic Missile Proliferation (ICOC) which later became known as The Hague Code of Conduct against Ballistic Missile Proliferation (HOCOC).⁶⁰⁹

Some of the named nuclear weapons delivery system available to the Nuclear Weapon State (NWS) and other nuclear weapon possessing State since after the Second World War include: Intercontinental Ballistic Missiles (ICBMs); Multiple Independently Targetable Re-entry Vehicles (MIRVs); Sea Launched Cruise Missiles (SLCMs); and Submarine Launched Ballistic Missiles (SLBMs).⁶¹⁰

In the light of the existence of the aforementioned nuclear weapons delivery vehicles and the intent to curb the ballistic missiles, the United States and the former Soviet Union signed the bilateral Treaty on the Limitation of Anti-Ballistic Missile System (ABM Treaty or ABMT) in May 26 1972.⁶¹¹ The treaty was terminated in 2002 following the withdrawal of the United States due to its National Security Council decision and the hitherto dissolution of the Soviet Union in 1991. By and large, the non-proliferation order in itself is an obstacle to disarmament.

3.9 The Indirect Contributions of the Five Nuclear-Weapon-Free-Zones (NWFZs) to Disarmament

Practically, the willingness of many States especially the non-nuclear ones to continuously renounce the production and deployment of nuclear weapons that resonates in an ongoing effort in creating alternative security strategies in terms of regional and global policies is exemplified in the various nuclear-weapon-free-zones.

⁶⁰⁶ Treaty Banning Nuclear Weapons Test in the Atmosphere, in Outer Space and Under Water (The Limited Test Ban Treaty), 5 August 1963

⁶⁰⁷ Treaty Between the United States of America and The Union of Soviet Socialist Republic on the Limitation of Underground Nuclear Weapon (Threshold Test Ban Treaty – TTBT), 31 July 1974

⁶⁰⁸ Missile Technology Control Regime (MTCR), April 1987

⁶⁰⁹ Hague Code of Conduct against Ballistic Missile Proliferation (HOCOC), 22 – 26 November 2002

⁶¹⁰ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 17

⁶¹¹ Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty), 26 May 1972

Nuclear-Weapon-Free-Zone (NWFZ) according United Nations is based on as agreement, which a group of States has freely established by treaty, or convention that bans the use, development or deployment of nuclear weapons in a given area that has mechanism of verification and control to enforce its obligations. Any zone recognised by the United Nations General Assembly (UNGA), which any group of States, in the exercises of their sovereignty has established by virtue of treaty or convention whereby: (a) the status of total absence of nuclear weapons to which the zone shall be subject, including the procedure for delimitation of the Zone; (b) an international system of verification and control is established to guarantee compliance with the obligations of deriving from that Statute.⁶¹²

In the same vein, UNGA in 1975 recommended the following principles guiding the establishment of NWFZ: “(a) obligations concerning the establishment of NWFZs may be assumed not only by groups of States, including entire continents or large geographical regions, but also by smaller groups of States and even individual countries; (b) NWFZ arrangements must guarantee that the zone stay effectively free of all nuclear weapons; (c) the proposal for the establishment of a NWFZ must emerge from the States within the region and involvement should be of free will; (d) whenever a zone (NWFZ) desired to accept a region, the involvement of all militarily important States and preferably all States, in that region would enhance the effectiveness of the zone; (e) the zone arrangement must include an effective system of verification to ensure full compliance with the stipulated obligations; (f) the arrangements should promote the economic, scientific and technological development of the members of the zone through international cooperation on all peaceful uses of nuclear energy; and (g) the NWFZ treaty should have limitless duration.”⁶¹³

As a reiteration, Article VII of the Non-Proliferation Treaty (NPT) affirms the right of States to create Nuclear-Weapon-Free-Zone (NWFZ) in their respective territory.⁶¹⁴ Pragmatically, in the 1995 Non-Proliferation Treaty Review and Extension Conference (NPTREC), the State parties’ participants reaffirmed that regional de-nuclearisation measures enhance global and regional peace and security.⁶¹⁵ Consequent upon this re-affirmation, the NWFZs have become *conditio-sine-qua-non* (necessary condition) for the nuclear non-proliferation order. Nuclear free zone means a zone that is free from nuclear weapons - bombs and nuclear warheads.⁶¹⁶ How freely effective is a nuclear weapon free zone when it requires the free will of the States within its region to its formation?

The universal recognition of the NWFZs will invariably or somewhat require the nuclear threshold States of India, Pakistan and Israel to establish de-nuclearised zones in the

⁶¹² The United Nations General Assembly (UNGA) Resolution 3476 B (XXX) –Definition of Nuclear-Weapon-Free-zone (NWFZ), 11 December 1975

⁶¹³ The United Nations General Assembly (UNGA) Resolution 3476 B (XXX) –Definition of Nuclear-Weapon-Free-zone (NWFZ), 11 December 1975 – Obligations Concerning the Establishment of Nuclear-Weapon-Free-zone (NWFZ)

⁶¹⁴ Treaty on the Non-proliferation of Nuclear Weapons (NPT), July 1 1968, art VII

⁶¹⁵ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) Review Extension Conference Document – NPT/CONF 1995/32/DEC 2

⁶¹⁶ P Moorthy, *Nuclear Weapons Free Zone* (Concept Publishing Company, 2006) 139

South Asia region and the Middle East. There are presently five existing Nuclear-Weapon-Free-Zones across the world (as at 2017). They are: The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco);⁶¹⁷ the South Pacific Nuclear-Free-Zone Treaty (Treaty of Rarotonga);⁶¹⁸ the Southeast Asia Nuclear-Weapon-Free-Zone (Treaty of Bangkok);⁶¹⁹ the African Nuclear-Weapon-Free-Zone (Treaty of Pelindaba);⁶²⁰ and the Central Asian Nuclear Free Zone (Treaty of Semipalatinsk).⁶²¹

The Treaty of Tlatelolco is a multilateral agreement for the Prohibition of Nuclear Weapons in Latin American and the Caribbean. Latin American States except Cuba at Tlatelolco, a district of Mexico City, signed it on 14 Februar 1967. The treaty clearly provides for a comprehensive control and verification mechanism, regulated by the Agency for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (OPANAL), headquartered in Mexico City. The treaty is annexed with two Additional Protocols. Protocol I binds all (overseas) nations (U.S., U.K., France and the Netherlands) to the terms and conditions of the treaty. Protocol II obliges all the NWS to desist from any form of undermining the nuclear-free-status of the region.⁶²²

Does the exclusion of Cuba from the Tlatelolco NWFZ Treaty still make the Latin American and the Caribbean a nuclear Free Zone? Are there no enforceable mechanisms in place to ensure effective compliance? Do NWFZs exclude nuclear weapons in transit and their delivery vehicles such as nuclear submarines? These are pertinent questions seeking answers to ensure the Treaty of Tlatelolco is a NWFZ instrument in the Latin American and the Caribbean.

In Article I, this treaty prevents and prohibits “testing, use, manufacture, production or acquisition by any means whatsoever of any nuclear weapons” as well as the receipt, storage, installation, deployment and any form of possession of any nuclear weapon” in Latin America and the Caribbean.⁶²³ For the purposes of clarity, Article 5 defines nuclear weapon as a device capable of releasing nuclear energy in an uncontrollable fashion and possessing the characteristic suitable for warfare.⁶²⁴

However, Article 18 allows, specifies, and provides for the procedures of testings of nuclear devices for peaceful purposes⁶²⁵ in as much such procedures are in conformity with the provisions of Article I.⁶²⁶

The South Pacific Nuclear-Weapon-Free-zone (SPNFZ) Treaty generally known as the Treaty of Rarotonga is the second NWFZ treaty in the World. This treaty is a

⁶¹⁷ Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), 14 February 1967

⁶¹⁸ South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), 6 August 1985

⁶¹⁹ Southeast Asia Nuclear Weapon Free Zone (Treaty of Bangkok), 15 December 1995

⁶²⁰ African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba), 11 April 1996

⁶²¹ Central Asian Nuclear Weapon Free Zone (Treaty of Semipalatinsk), 8 Septembe 2006

⁶²² Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), 14 February 1967, pro I

⁶²³ Ibid, art I

⁶²⁴ Ibid, art 5

⁶²⁵ Ibid, art 18

⁶²⁶ Ibid, art I

multilateral pact and an official formalisation of Nuclear-Free-Zone in the South Pacific. The treaty was signed in April 6 1985 in Rarotonga, the capital city of the Cook Islands by the South Pacific States of Australia, the Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Solomon Island, Tonga, Tuvalu, Vanuatu and Western Samoa. The treaty has been ratified by all the State parties and has been in force since 1986 and these three States: the Federated States of Micronesia, Marshall Islands and Palau are eligible to accede to the treaty since 1987 but yet to join ⁶²⁷(as at 2017).

This Treaty of Rarotonga whose duration is permanent in nature in line with the 1975 UNGA guideline for NWFZ,⁶²⁸ remains in force indefinitely and has three Protocols signed by the five NWS with the exclusion of Russia which has no territory in the Zone. It is worth noting that China has not signed the Protocol I of this treaty. This South Pacific Nuclear-Free-Zone Treaty is more stringent than the Treaty of Tlatelolco. In Protocol 3, the Treaty of Rarotonga prohibits possession, testing and the use of nuclear weapons within the borders of the zone.⁶²⁹ Similarly, in its Article 3, the treaty also prohibits receiving or requesting assistance in the manufacture or acquisition of nuclear explosive devices.⁶³⁰

Furtherance to the prohibition of nuclear explosive devices in the region of the South Pacific, Article 1 (C) of the Treaty of Rarotonga defines a “nuclear explosive device” as “any nuclear weapon or other explosive device capable of releasing nuclear energy, irrespective of the purpose for which it could be used.”⁶³¹ Article 7 stipulates a ban on the dumping of radioactive materials at sea or anywhere within the South Pacific Zone.⁶³² In line with this specific provision, the South Pacific NWFZ Treaty is appraised as “Nuclear-Free”, a notional connotation wider than “Nuclear-Weapon-Free-Zone” (it goes beyond banning nuclear weapons) that reflect the frequently advocated United Nations and other global organisations views on the complete nuclear disarmament.

Another emergence of regional de-nuclearisation is the Southeast Asian Nuclear-Weapon-Free Zone (NWFZ) Treaty, simply known as the Treaty of Bangkok. The Treaty of Bangkok was signed on 15 December 1995 at a nuclear weapons conference in Bangkok, the capital city of Thailand by ten Southeast Asian member-state of the Association of Southeast Asian Nations (ASEAN). The State signatories to the treaty are: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.⁶³³ The treaty entered into force on 28 March 1997 upon ratification⁶³⁴ and is to remain legally binding indefinitely.⁶³⁵ With the absence of China and North Korea, does the Southeast Asian still stand as a nuclear

⁶²⁷ Wade Huntley et al (eds) *Nuclear Disarmament in the Twenty-First Century* (Hiroshima Peace Institute, 2004) 311

⁶²⁸ The United Nations General Assembly (UNGA) Resolution 3476 B (XXX) –Definition of Nuclear-Weapon-Free-zone (NWFZ), 11 December 1975

⁶²⁹ South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga), 6 August 1985, pro I

⁶³⁰ Ibid, art 3

⁶³¹ Ibid, art 1 (c)

⁶³² Ibid, art 7

⁶³³ Southeast Asia Nuclear Weapon Free Zone (Treaty of Bangkok), 15 December 1995, arts 1 (a) and 2.1

⁶³⁴ Ibid, art 16.2

⁶³⁵ Ibid, art 22.1

free zone? Bearing in mind that China is a nuclear weapon state and North Korea has an open nuclear programme ambition resulting in its numerous nuclear tests.

The Southeast Asian NWFZ Treaty includes the territories, continental exclusive shelves and the Executive Economic Zone (EEZ).⁶³⁶ The inclusion of the continental shelves and the EEZ is relatively novel concept introduced to this treaty. By “territories” the treaty implies: “land territory, internal waters, territorial sea, archipelagic waters, the seabed and the subsoil thereof and the airspace above them.”⁶³⁷ There is a protocol annexed to this Treaty of Bangkok upon which the five NWS officially recognised by the NPT accept the legal obligations to abide by the treaty and to avoid any contribution to the violation of its provisions; as well as not to use nuclear weapons or any threat of nuclear weapons against any member of treaty in particular and the zone in general.

Like the treaty, the Protocol is permanently durational and each member of the Protocol, that is, the five the NWS: China, France, Russia, United Kingdom, and the United States or the treaty Member-States may withdraw from it. In the case of the Protocol, a party may withdraw if it feels that unusual events pertaining to the core subject matter of the protocol is detrimental to its best national interests. For the treaty, Article 22.2 provides for the right of withdrawal of any party with the giving of twelve months’ notice, consequent upon a breach by any other party at the expense of the objectives of the treaty.⁶³⁸

The operation of the Southeast Asian Nuclear-Weapon-Free Zone Treaty is reviewed 10 years after its entry into force at a meeting of a Commission for the Southeast Asia Nuclear-Weapon-Free-Zone.⁶³⁹ “Amendments to this treaty and its protocol” ... can “be adopted by a consensus decision of the Commission”.⁶⁴⁰

Based on the aforementioned provisions, any dispute arising from the interpretation of the Treaty should be amicably settled by the States party to the dispute. Within a month, if the parties to the dispute cannot “achieve a peaceful settlement to the dispute by negotiation, mediation, enquiry or conciliation” ... the dispute can be referred to arbitration or to the International Court of Justice.⁶⁴¹ Judging from this scenario, if there is immanent danger of nuclear conflict or war would the States involve and their allies have the time to be patient enough to exhaust the mediation processes of negotiation and peace?

The treaty ultimately prohibits the development, testing, manufacturing or acquisition, possession or having control over nuclear weapons both within and outside the Southeast Asian zone by its signatories. However, a party to the treaty may use nuclear energy for their economic advancement and social progression. Such usage including the use of nuclear weapon is not permitted by other States in the zone. According to the treaty, “nuclear weapon” is simply defined as “any explosive device

⁶³⁶ Ibid

⁶³⁷ Ibid, art 1 (b)

⁶³⁸ Ibid, art 22.2

⁶³⁹ Ibid, art 20

⁶⁴⁰ Ibid, art 19

⁶⁴¹ Southeast Asia Nuclear Weapon Free Zone (Treaty of Bangkok), 15 December 1995, art 21

that is capable of releasing nuclear energy in an uncontrolled manner but does not include the means of transport or delivery of such device if separable from and not an indivisible part thereof.”⁶⁴²

Before engaging in any peaceful nuclear energy programme in conformity with Article 4.1, each State party as a matter of necessity must undergo the thorough nuclear safety evaluation in line with the safeguard requirements of the International Atomic Energy Agency (IAEA) for the minimisation of danger and health protection.⁶⁴³

As a super-power who alongside with the rest of the Nuclear Weapon States (NWS) double as permanent members of the United Nations Security Council (UNSC), the United State of America had shown concern (subscribed to) by other NWS that the extent of the Southeast Asian geographical zone is incoherent with the Law of the Sea Convention. That is, the normal movement of nuclear-powered and nuclear-armed naval vessels and aircraft through the Southeast Asian region will be constrained and regional security arrangement obstructed. China, had hitherto specifically objected to the inclusion of South China Sea in the geographical delineation of the Southeast Asian NWFZ. Given this China’s objection is the Southeast Asian region still viable is a NWFZ in its strict sense?

The fourth globally recognised NWFZ is the African Nuclear-Weapon-Free Zone (ANWFZ) Treaty, generally referred to as the Treaty of Pelindaba. Pelindaba is the major Nuclear Research Centre in South Africa under the operation of the South Africa Nuclear Energy Corporation. It was in Pelindaba where South Africa manufactured and kept its Atomic Bomb in the 1970s. The ANWFZ Treaty was signed in Cairo, Egypt on 11 April 1996 and in July 15 2009 it became legally effective upon the ratification of 28 Party States. The African Nuclear-Weapon-Free Zone (ANWFZ) Treaty covers the whole of the African continent as well as the island States and Archipelagos that are under the Africa Union.⁶⁴⁴

The Treaty of Pelindaba like the Treaties of Tlatelolco and Rarontoga followed the procedure of NWFZ arrangements and its proposal was acknowledged by the United Nations on 12 December 1995. The ANWFZ Treaty bans the conduct of research, development, manufacture, stockpiling, acquisition, possession, control or stationing of nuclear explosive devices⁶⁴⁵ and the dumping of radioactive waste material within the territories of the respective African States that are signatories to the Treaty.⁶⁴⁶

In Articles 3 and 5, the Treaty prohibits requesting, acceptance, encouragement or assistance of the aforementioned activities relating to nuclear explosive devices.⁶⁴⁷ Article 1 (c) defines nuclear explosive device clearly in the same fashion, defined in the South Pacific Nuclear-Free-Zone Treaty (Treaty of Rarotonga). That is, any

⁶⁴² Ibid, art 1 (C)

⁶⁴³ Ibid, art 4 (b)

⁶⁴⁴ African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba), 11 April 1996, art 1 (a) and (b)

⁶⁴⁵ Ibid, art 3 (a)

⁶⁴⁶ Ibid, art 7 (b)

⁶⁴⁷ Ibid, arts 3 and 5

nuclear weapon or other explosive device capable of releasing nuclear energy, regardless of the purpose of its uses.⁶⁴⁸

With specific reference to the verification of the International Atomic Energy Agency (IAEA), Article 6 of the ANWFZ Treaty requires the dismantlement and the disarmament of any nuclear device manufactured before the emergence and the coming into force of the treaty. Furthermore, all nuclear installations and facilities as well as their conversion to peaceful use should also be destroyed. All of these dismantlement, disarmament and destruction must be under the supervision of the International Atomic Energy Agency (IAEA).⁶⁴⁹

This operation is to dismiss all persisting doubts about some hidden nuclear materials and clandestine nuclear activities are still in operation in South Africa. This provision of Article 6 of Treaty of Pelindaba stands as a precedence or yardstick of measurement for future nuclear-weapon-free-zone agreements involving the participation of nuclear threshold States for disarmament. In view of Article 6 cited above, nuclear instatallation may have been situated in an African country which is not a signatory to the treaty and this may an obstacle to such a country as its nuclear facility is not allowed to be used for peaceful purposes.

Article 12 obligates the African Commission on Nuclear Energy (AFCONe), headquartered in South Africa to ensure compliance of the verification of the uses of nuclear energy which are to be carried out by the IAEA as enshrined in Annex II;⁶⁵⁰ and in conformity with the provisions of Article 9 (C) that require Parties to the treaty may supply nuclear materials or equipment to Non-Nuclear Weapon States (NNWS) in as much the parties must adhere to full scale safeguards.⁶⁵¹ More so, Article 10 obliges the parties to the treaty to adhere to international law regulating the security and physical protection of nuclear materials and facilities for the prevention of theft for unlawful purposes.⁶⁵² In the same vein, Article 11 out rightly forbids any calculated action of conventional armed attack or otherwise aimed at nuclear installation in the African Zone.⁶⁵³

The de-nuclearisation provisions in Article 3 to 10 of the African Nuclear-Weapon-Free-Zone (ANWFZ) Treaty, the inspection mechanisms of the African Commission on Nuclear Energy (AFCONe) in collaboration with the IAEA, and the recognition of archipelagos under the African Union (AU) by the treaty make Africa as a continent to stand out against nuclear proliferation. The Treaty of Pelindaba has unlimited life span⁶⁵⁴ and is not subject to reservation. A party to the treaty may withdraw its membership at 12 months notice, upon unexpected occurrence(s) that may endanger its ultimate interest.⁶⁵⁵ The withdrawal clause in the ANWFZ treaty is less cumbersome

⁶⁴⁸ Ibid, art 1 (c)

⁶⁴⁹ Ibid, art 6

⁶⁵⁰ African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba), 11 April 1996, art 12 (c)

⁶⁵¹ Ibid, art 9 (c)

⁶⁵² Ibid, art 10

⁶⁵³ Ibid, art 11

⁶⁵⁴ African Nuclear Weapon Free Zone Treaty (Treaty of Pelindaba), April 11 1996, art 17

⁶⁵⁵ Ibid, art 20.1

compare to the Treaty of Rarotonga which allows withdrawal only in the case of material violation of the treaty.

The fifth and the most recent NWFZ in the world was put in place in the Central Asian Nuclear Weapon Free Zone Treaty, also known as the Treaty of Semipalatinsk. The treaty was signed in Semipalatinsk Test Site, Kazakhstan, in September 8 2006 by Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan⁶⁵⁶ and it was ratified by all the five member-States in March 21 2009.

Under the basic obligations of this treaty, the member-States legally undertake in Article 3 (1b) not to conduct research, develop, manufacture, stockpile, acquire, possess, or have any control over any nuclear weapon or other nuclear device by any means anywhere.⁶⁵⁷ Article 3 extensively highlights the provisions of the basic obligations of the Central Asian Nuclear Weapon Free Zone Treaty. The treaty prohibits Member States from seeking, receiving, assisting or encouraging the aforementioned actions in Article 3 (1b). Essentially, every member-State solemnly declares not to conduct nuclear weapon tests or any other nuclear detonation at any place under its jurisdiction.⁶⁵⁸

Consequently, the Central Asian State parties of the Treaty of Semipalatinsk equally pledge to conclude arrangements with the International Atomic Energy Agency (IAEA) and ensure the enforcement of a Safeguard Agreement and Additional Protocol within a year and six months of the treaty entering into force.⁶⁵⁹ Parties to the treaty are required to exercise export control not to provide or be a source of any fissionable material or associated equipment to any NNWS that has not finalised comprehensive safeguards agreement and Additional Protocol with the IAEA.⁶⁶⁰

In Article 9, the Treaty provides for the member-States to maintain physical protection of nuclear material, facilities and equipment that are outlined in the IAEA recommendations and guidelines by the Convention on Physical Protection of Nuclear Material (CPPNM).⁶⁶¹ The Central Asian Nuclear Weapon Free Zone Treaty in its entirety lends credence to the non-proliferation order. However, the treaty does not have provision for the establishment of a regional Commission or Organisation to enforce implementation on compliance or oversee verification as provided for in the Treaties of Tlatelolco, Bangkok and Pelindaba.

Remarkably, the Treaty of Semipalatinsk provides for consultative meeting to review compliance in Article 10.⁶⁶² In this provision, there is no interface between the responsibility of the consultative meeting and the function of the IAEA on safeguards. The Central Asian Nuclear Weapon Free Zone Treaty is the first NWFZ agreement that require its member-State full compliance with the Comprehensive Nuclear Test Ban Treaty.

⁶⁵⁶ Central Asian Nuclear Weapon Free Zone (Treaty of Semipalatinsk), 8 September 2006, art 1 (a)

⁶⁵⁷ Ibid, art 3 (1a)

⁶⁵⁸ Central Asian Nuclear Weapon Free Zone (Treaty of Semipalatinsk) 8 September 2006, art 3

⁶⁵⁹ Ibid, art 8 (b)

⁶⁶⁰ Ibid, art 8 (C)

⁶⁶¹ Ibid, art 9

⁶⁶² Ibid, art 10

The above five nuclear Weapon Free Zone (NWFZ) treaties encompass the entire territories of Latin America and the Caribbean (Treaty of Tlatelolco, 1967); the South Pacific (Treaty of Rarotonga, 1985); Southeast Asia (Treaty of Bangkok, 1995); Africa (Treaty of Pelindaba, 1996); and Central Asia (Treaty of Semipalatinsk, 2006). All these regions combined amount to 115 full fledge sovereign States, comprising of 60% of the entire United Nations Member States and a large covering of the southern hemisphere.⁶⁶³



Source: United Nations office for Disarmament Research
www.un.org/disarmament/wmd/nuclear/nwzf

The various NWFZ treaties, albeit structured and drafted differently, all have the fundamental characteristic of banning nuclear weapons in their respective regions with a strong emphasis as strong basis for the development and out right international prohibition of nuclear weapons. Divergently, they are deficient in the convergence of non-proliferation obligations in respect of verification, compliance, time, space, and implementation. The following are the lacuna associated with the various regional denuclearisation postures:

- (1) None of the NWFZ treaties has provision or indicates its validity or invalidity in the time or situation of war. This brings to question what if a member state comes under nuclear or conventional war attacks what would NWFZs do. This underscore the need for self defence or nuclear deterrence within the NWFZs. And at best, the NWFZs should have exception in times of nuclear threats or attacks
- (2) Apart from the African Nuclear Weapon Zone Treaty (ANWFZ), no other NWFZ treaty categorically prohibit attacks on nuclear facilities.

⁶⁶³ Wade L. Huntley et al (eds), *Nuclear Disarmament in the Twenty-First Century* (Hiroshima Peace Institute, 2004) 315

- (3) It is only the ANWFZ and the SPNFZ that explicitly prohibit nuclear explosive devices both in assembled and partially assembled forms.
- (4) None of the NWFZ treaties outlaws nuclear weapon installations or nuclear weapon related support facilities such as nuclear weapons delivery vehicles.
- (5) Of all the five NWFZ treaties, only the treaties of Tlatelolco and Bangkok have the provision for denuclearisation of maritime zones adjacent to territorial waters of coastal States.
- (6) The membership withdrawal clause: the “Supreme Interest” provision contained in the treaties of Tlatelolco and Pelindaba are too flexible and permissive in comparison to the treaties of Rarotonga and Bangkok that allow for the withdrawal of member States upon a material breach of parties’ obligations.
- (7) The obligation of the NWS to respect the treaties of the Nuclear Weapon Free Zones (NWFZs) has not codification or provision for effective verification.
- (8) Assurances of the NWS not to use nuclear weapons against any member of the different NWFZs are not unconditional.
- (9) It is only the Treaty of Bangkok that seems to prescribe an action for the violation of obligation assumed by the Nuclear Weapon States (NWS)
- (10) Unlike the New Zealand Single-State Nuclear Weapon Free Zone (SS – NWFZ) that proscribe transit of nuclear weapons through its territory, all the NWFZ treaties overlook the transit of nuclear weapons through their respective territories including sailing of foreign warships and aircraft conveying nuclear weapons.

3.10 The Single-State Nuclear-Weapon-Free-Zones (SS - NWFZs) in the Context of Disarmament Debate

Besides the aforementioned Nuclear Weapon Free Zone Treaties spreading across 115 States, individual States like New Zealand and Mongolia have enacted their autonomous Nuclear Free Weapon Zones (NWFZ) Acts. This is in conformity with UNGA Resolution 3261 F adopted on 9 December 1974 which emphasises that “obligations relating to the establishment of Nuclear-Weapon-Free Zones may be assumed not only by groups of States including entire continents or large geographical regions, but also by small groups of States and even individual countries.”⁶⁶⁴

Following the above UNGA Resolution, the parliament of New of Zealand in 1987 passed the New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act.⁶⁶⁵ This stipulate that the territorial sea, inland waters, internal waters, land, and airspace within the territorial boundaries of New Zealand became a nuclear Free Zone since 1987. In addition to the Act prohibiting the acquisition, stationing and testing of nuclear

⁶⁶⁴ The United Nations General Assembly (UNGA) Resolution 3261 F (XXIX) –Comprehensive Study of Nuclear-Weapon-Free-zone (NWFZ) In All Its Aspect, 9 December 1974

⁶⁶⁵ New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act, 8 June 1987, Public Act No.86 1987

explosive devices on New Zealand territory, ships entering into the internal waters of New Zealand within 12 nautical miles (22.2 km/13 – 13/16 status miles) radius and whose propulsion is wholly or partly dependent on nuclear power are banned.⁶⁶⁶

Notably, the New Zealand Nuclear Free Zone, Disarmament and Arms Control Act does not proscribe nuclear power plants, nuclear research facilities, radioactive isotopes use and other land related nuclear activities. Also, the Act gives the Prime Minister the prerogative to permit foreign warship into New Zealand's territorial waters upon satisfaction that such a warship does not carry any nuclear explosive devices.⁶⁶⁷ In the same vein, the Prime Minister may allow foreign military aircraft when satisfied that such aircraft is not carrying nuclear explosive devices into New Zealand's territory.⁶⁶⁸

Meanwhile, this New Zealand de-nuclearisation posture appeared unreceptive and unacceptable to the United States of America. As a consequence, the American government abandoned its naval activities with New Zealand, suspended its security undertakings and abrogated its long terms intelligence cooperation. The reason put forward by the United States government for these actions is that New Zealand has jeopardised the collective capacity of the 1952 Australia-New-Zealand-United States (ANZUS) Treaty to resist armed attacks in the pacific area.⁶⁶⁹ The New Zealand's SS-NWFZ is a commendable Act of a sovereign State determination to ensure the abolition of nuclear weapons at least in its territory. This SS-NWFZ should be viewed as a means and method of nuclear disarmament especially in the context of emergence of many States with nuclear capabilities.

In September 1992, the Mongolian President, Punsalmaagiin Ochirbat in his address to the United Nations General Assembly (UNGA) declared Mongolia a-Single-State Nuclear Weapon Free Zone (SS –NWFZ). Mongolian is a republican State conterminous with the Russian Federation and the People's Republic of China (both of which are Nuclear Weapon States and Permanent UN Security Members).⁶⁷⁰

Mongolia became globally recognised as a Nuclear Weapon Free Zone State by the UNGA Resolution 53/70 adopted on 4 December 1998.⁶⁷¹ This recognition was consolidated by the presentation of the document detailing the Mongolian de-nuclearisation status to the United Nations by Mongolian Ambassador to the United Nations Jargalsaikhan Enkhsaikhan in February 28, 2000.

Mongolia's anti-nuclear posture entered into force on 3 February 2000 and covers the entirety of Mongolian territory. This include: airspace, land, waters and the sub-soil. The obligations of the Mongolia Single State Nuclear Weapon Free Zone (SS – NWFZ)

⁶⁶⁶ New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act, June 8 1987, Public Act arts 5, 6 and 7

⁶⁶⁷ Ibid art 9 (1) and (2)

⁶⁶⁸ Ibid art, 10 (1), (2) and (3)

⁶⁶⁹ Amy L. Catalinac, 'Why New Zealand Took Itself Out of ANZUS: Observing "Opposition for Autonomy" in Asymmetric Alliances' [2010] Foreign Policy Analysis 6, 317 - 338

⁶⁷⁰ J. Enkhsaikhan 'Mongolia's Nuclear-Weapon-Free Status: Concept and Practice' [2010] Asian Survey 40 (2), 342 - 359

⁶⁷¹ The United Nations General Assembly (UNGA) Resolutions and Decision of the Fifty-Fifty Session, December 4, 1998 Resolution 53/77

Act has tripartite dimensions as it pertains to any individual, legal person, or foreign States prohibited in committing, initiating, or participating in the following activities relating to nuclear weapons: (I) developing, manufacturing, acquiring, possessing or having control over nuclear weapons; (II) stationing or conveyance of nuclear weapons by any means; and (III) dumping or disposing of nuclear weapons radioactive waste material.⁶⁷²

In ensuring substantial compliance and verification, the Mongolian government shall implement the relevant law in conjunction with international organisations such as the IAEA. In the case of violation or suspected violation, the individual or State shall be held liable in accordance with Criminal Code (in the case of individuals) as well as relevant legislation of Mongolian government in conformity with the appropriate international treaty and the precepts of international law.⁶⁷³ A pertinent question here is: why is Mongolia not a State party or signatory to the Treaty of Bangkok? For whatever reason Mongolia chose not to be a signatory to the Southeast Asia NWFZ, it could be deduced that Mongolia set the pace for the emergence of the treaty of Bangkok as Mongolia's SS-NWFZ was declared by its President in the UNGA in 1992, 3 years before the existence of the Treaty of Bangkok.

Essentially, the establishment of the SS-NWFZs of New Zealand and Mongolia is a practical means of promoting nuclear non-proliferation and disarmament. These SS-NWFZs are institutionalised global legal frameworks on nuclear weapons aimed at a more secure and safe world, particularly in the sovereignties of these two States. More States are encouraged to independently adopt the Single State Nuclear Weapons Free Zone to demonstrate their sovereign commitments to nuclear disarmament.

3.11 The Contemporary Global Threats and the Challenges of Nuclear Terrorism: A Rationale for Disarmament

The fall of the Soviet Union precipitated an international apprehension of possibly available "loose nukes" from different nuclear weapon facilities, nuclear reactors, and radioactive waste sites scattered all over the defunct Soviet Union territory. To install radiation detection equipment across the borders of the States which formerly comprised of the Soviet Union was the initial global challenge. Globally, there is a genuine concern that nuclear materials and equipment can possibly fall into the hands of terrorist groups.⁶⁷⁴ Terrorist groups like Al Qaeda have repeatedly demonstrated that they seek to acquire nuclear weapons.⁶⁷⁵ Such demonstrations have mainly taken the form of attempts to acquire radioactive materials to produce dirty bombs or Improvised Explosive Devices (IED).

There are two major access ways terrorist groups can acquire nuclear weapons: either acquiring them directly through Nuclear Weapons State(s) (NWS) especially through the defunct Soviet Union's old stockpiles⁶⁷⁶ or by illicitly procuring nuclear materials to

⁶⁷² Nuclear-Weapon-Free Status of Mongolia, September 1992

⁶⁷³ Ibid

⁶⁷⁴ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 231

⁶⁷⁵ Alan J Kuperman, (ed) *Nuclear Terrorism and Global Security: The Challenges of Phasing Out Highly Enriched Uranium* (Routledge, 2013)

⁶⁷⁶ James M. Lutz and Brenda J. Lutz, *Global Terrorism* (Routledge Taylor & Francis Group, 2004) 29

manufacture improvised nuclear devices.⁶⁷⁷ The danger associated with these possibilities is more real than imagined. A successful explosion of an improvised nuclear device by a terrorist group in city will definitely result in thousands of deaths besides unfathomable economic, social and political consequences. Fundamentally, the major global responsibility is to by all means prevent terrorist groups from have access to nuclear weapons or the fissile material that is infused into nuclear weapons. With no access to fissile material, which terrorists on their own cannot produce,⁶⁷⁸ the threat of nuclear terrorism is minimal.

As a consequence of this danger, the IAEA has been monitoring since 1995 an Illicit Trafficking Database (ITDB). This database contained 336 incidents of unauthorised acquisition, possession, and transfer of nuclear materials involving 15 illegal trades and criminal activities around Highly Enriched Uranium (HEU) and plutonium from January 1993 to December 2008. The ITDB also contained 421 cases of theft of nuclear materials and 724 incidents of unauthorised disposal of radioactive materials. Presently, nuclear materials which can be used to manufacture nuclear a bomb are located in many countries power plants and nuclear reactors.⁶⁷⁹

Obviously, the combination of clandestine nuclear network and the potential availability of loose nukes is literally fatal. Since the 1980s there has been in existence an illegal network of nuclear materials that crucially aided the development of the clandestine nuclear programmes of Libya, Iran and North Korea. This network was officially destroyed in 2004. However, there are fears that other illicit networks can easily be created in replacement of the hitherto dismantled clandestine one. Clandestine nuclear networks have been largely successful because their operators quickly take on new techniques suitable to their needs.⁶⁸⁰

The emergence of illegal nuclear networks used in clandestine nuclear programmes has formidable ideological origins. For instance, the Cold War politics categorised the world into States that have nuclear capability and States that did have them.⁶⁸¹ Some leaders of the Arab countries were concern about acquiring bombs that will serve as deterrent against any attack from the West and the State of Israel and as such they condoned the manufacturing of the first Islamic bomb in Pakistan in the 1970s.⁶⁸² Pakistan firmly believes that its nuclear programme stands for national pride and also

⁶⁷⁷ Gary Ackerman and Jeremy Tamsett, *Jihadists and Weapons of Mass Destruction* (Routledge Taylor & Francis Group, 2009) 289

⁶⁷⁸ Peter Katona et al, *Countering Terrorism and WMD: Creating a Global Counter-Terrorism Network* (Routledge Taylor & Francis Group, 2006) 121

⁶⁷⁹ James E. Doyle, *Nuclear Safeguards, Security and Non-proliferation: Achieving Security with Technology and Policy* (Elsevier Inc, 2008) 418)

⁶⁸⁰ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 232

⁶⁸¹ Ibid

⁶⁸² Samina Yasmeen, 'Is Pakistan's Nuclear Bomb an Islamic Bomb? [2001] Asian Studies Review 25(2), 201 - 215

an attainment of global prominence.⁶⁸³ The main personality of Pakistan's nuclear programme is Abdul Qadeer Khan.⁶⁸⁴

Khan masterminded illicit nuclear network in the late 1980s with the connivance of some top Pakistani military and bureaucratic elites.⁶⁸⁵ In 2008 there was revelation about Abdul Qadeer Khan Network with a Swiss family – the Tinnars, who have been in contact with this nuclear network since its inception.⁶⁸⁶ In a chain of supply, the Tinnars purportedly sold illegal nuclear equipment to a Malaysian firm that produced parts for sale in Libya. Following an investigation, the Swiss government destroyed the weapon plans, emphasising that doing so was to prevent such nuclear weapons plans from falling into the terrorists hands.⁶⁸⁷ However, there was a classified speculation that the U.S. Central Intelligence Agency (CIA) clandestinely used the Swiss family as informants to elicit all the secrets of Abdul Qadeer Khan illicit nuclear network.⁶⁸⁸

Meanwhile, after the terrorists' attacks of 11 September 2001 in the United States, the United Nations Security Council (UNSC) adopted Resolution 1373 on 28 September 2001⁶⁸⁹ commonly called "Counter-Terrorism Code". The term is a derivative of the fact that the resolution establishes legal obligations for the 192 Member States of the United Nations.⁶⁹⁰ The resolution is predicated on Chapter VII of the United Nations Charter entitled: "Action with Respect to the Threat of Peace, Breaches of Peace and Acts of Aggression";⁶⁹¹ and as such all decisions reflected on this Resolution 1373 are legally binding on all UN Member States.

In the same vein, the UNSC passed Resolution 1540 in April 2004 to prevent terrorists and criminal organisations from obtaining Weapons of Mass Destruction (WMD). That is, Biological, Chemical, and nuclear weapons. The resolution obligates all States to ensure effective measures to reduce vulnerability of many legitimate activities to misuse in ways that would foster proliferation of WMD and means of delivery to non-state actors.⁶⁹²

In its continuous on counter-terrorism efforts, the UNSC unanimously in its 5609th meeting on 22 December 2006 adopted Resolution 1735⁶⁹³. This was in solidarity with the mandate of the Analytical Support and Sanctions Monitoring Team (ASSMT) of the UNSC (Resolution 1267) Committee on Al-Qaida/Taliban Sanctions,⁶⁹⁴ for

⁶⁸³ P.R. Chari et al, *Perception, Politics and Security in South Asia: The Compound Crisis of 1990* (RoutledgeCurzon Taylor & Francis Group, 2003) 117

⁶⁸⁴ Mark Fitzpatrick, *Nuclear Black Market: Pakistan, A.Q. Khan and the Rise of Proliferation Networks: A Net Assessment* (The International Institute for Strategic Studies, 2007) 7

⁶⁸⁵ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 233

⁶⁸⁶ Ibid

⁶⁸⁷ Ibid

⁶⁸⁸ Ibid

⁶⁸⁹ United Nations Security Council (UNSC) Resolution 1373, Adopted at its 4385th Meeting on 28 September 2001

⁶⁹⁰ Ibid

⁶⁹¹ Charter of the United Nations, 26 June 1945, Chapter VII

⁶⁹² United Nations Security Council (UNSC) Resolution 1540, Adopted at its 4956th Meeting on 28 April 2004

⁶⁹³ Ibid, Resolution 1735, Adopted at its 5609th Meeting on 22 December 2006

⁶⁹⁴ Ibid, Resolution 1267, 15 October 1999

additional durational extension of 18 months. This resolution held and substantiated the hitherto existing sanctions against members of Al-Qaida, the Taliban and all amorphous entities and individuals associated with them, as documented in the relevant sanctions list of the United Nations Security Council (UNSC).⁶⁹⁵ Consequently, all UN Member-States were obliged to comply in forging international cooperation mechanism in activities related to terrorism such as nuclear terrorism against these terrorist groups.

Within the expanded global legal framework in tackling nuclear terrorism, the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) is a fundamental universal legal instrument adopted by the United Nations General Assembly (UNGA) in April 2005 to counter terrorists' threats.⁶⁹⁶ The Convention reaffirms the United Nations unequivocal condemnations of nuclear terrorism with provisions for a broader coverage of possible terrorist targets such as nuclear power plants and nuclear reactors. It encourages States to cooperate in preventing terrorist attacks by sharing information and assisting each other in connection with investigations and extradition proceedings. Under its provisions, the alleged offenders must either be prosecuted or extradited. Furthermore, the Act stipulates that any confiscated nuclear or radiological material is kept in accordance with International Atomic Energy Atomic (IAEA) safeguards.⁶⁹⁷

Similarly, the International Convention for the Suppression of Terrorist Bombing (ICSTB) signed in New York on 15 December 1997 and entered into force in May 23 2001 is an international treaty designed to enhance international cooperation amongst States in devising and adopting effective and practical measures for the prevention of the acts of terrorism (especially nuclear terrorism) and for the prosecution and punishment of their perpetrators.⁶⁹⁸

Prior to the aforementioned International Conventions to suppress nuclear terrorism and bombing, the Convention on the Physical Protection of Nuclear Material (CPPNM) was signed in Vienna and New York respectively on 3 March 1980. This Convention is the only international legally binding agreement in regard to physical protection of nuclear material. It provides for measures related to the prevention, detection and punishment of nuclear material related offenses.⁶⁹⁹ To amend and strengthen the provisions of this Convention, a diplomatic conference was convened in July 2005.

The Amended version of the Convention makes it a legal obligation for States to protect nuclear facilities and material during peaceful domestic use, storage and conveyance. Essentially, it provides for expanded cooperation between and among States with quick measures to locate and recover stolen or smuggled nuclear materials, mitigate any radiological consequence of sabotage for the prevention of terrorist related offenses.⁷⁰⁰

⁶⁹⁵ Ibid, Resolution 1735, 22 2006

⁶⁹⁶ International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), 2005

⁶⁹⁷ International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), 2005

⁶⁹⁸ International Convention for the Suppression of Terrorist Bombing (ICSTB) December 15 1997

⁶⁹⁹ Convention on Physical Protection of Nuclear Material (CPPNM) March 3 1980

⁷⁰⁰ The 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM)

As an existing mechanism of counter-terrorism, the Terrorism Prevention Branch (TPB) of the United Nations Office on Drugs and Crime (UNDOC)⁷⁰¹ collaborates with States in need of legislative guidance in drafting of statute that reflect the obligations of the UNSC Resolution 1373 against terrorism.⁷⁰² States are required to implement feasible measures in their national laws in preventing and countering nuclear terrorism. Nuclear terrorism is complex to fight against especially with States that have no technical measures to tackle hazardous and radioactive materials.⁷⁰³

With the recognition of the complexity of the fight against nuclear terrorism, the Global Threat Reduction Initiative (GTRI) was initiated on 26 May 2014 by the United States in a consultative meeting with officials of the IAEA as a comprehensive global framework to consolidate nuclear security all over the world. The GTRI is devised to reduce the threat of nuclear terrorism by tackling the problem of loose nukes and proliferation posed by increasing numbers of nuclear facilities spread across the world.⁷⁰⁴ Substantially, the rationale behind the initiative is practically to “minimise as quickly as possible the amount of nuclear material that could be used for nuclear weapons. It also seeks to put into place mechanisms to ensure that nuclear materials and related equipment – wherever they may be in the world – are not used for malicious purposes.”⁷⁰⁵

In consolidation of the GTRI, the Global Initiative to Combat Nuclear Terrorism (GICNT) was launched on 15 July 2006 in St. Petersburg, Russia by President George Bush Jnr. of the United States of America and Vladimir Putin of Russia. The aim of the GICNT is to “expand and accelerate the development of partnership capacity to combat the global threat of nuclear terrorism.” Presently, more than 80 States together with the (IAEA) are involved in the partnership of the GICNT.⁷⁰⁶ Consequently, all Partner States of this initiative have adopted a “Statement of Principles” and “Terms of Reference for Implementation and Assessment” as well as the creation of Points of Contact (POC) for facilitation and coordination among themselves.⁷⁰⁷

In continuity of the fight against the global threat and challenges of nuclear terrorism, President, Barack Obama in his 2009 Prague speech unequivocally made the prevention of nuclear terrorism a top foreign policy priority of the United States. Credence to the U.S. foreign policy priority against the challenges of nuclear terrorism is the Nuclear Security Summit Process.⁷⁰⁸ This include: the summit event of head-

⁷⁰¹ Input of the Terrorism Prevention Branch of the United Nations Office on Drugs and Crime into the Report of the Secretary-General on the Implementation of the UN General Assembly Resolution 66/50 entitled “Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction

⁷⁰² United Nations Security Council (UNSC) Resolution 1373, Adopted at its 4385th Meeting on 28 September 2001

⁷⁰³ Input of the Terrorism Prevention Branch of the United Nations Office on Drugs and Crime into the Report of the Secretary-General on the Implementation of the UN General Assembly Resolution 66/50 entitled “Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction

⁷⁰⁴ Sharon A. Squassoni and Amy F. Woolf, *Global Threat Reduction* (Novinka Books, 2006) 14

⁷⁰⁵ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 240

⁷⁰⁶ Igor Khripunov and Dmitriy Nikonov, *Legal Framework for Strengthening Nuclear Security and Combating Nuclear Terrorism* (IOS Press, 2010) 145

⁷⁰⁷ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 240

⁷⁰⁸ Aiden Warren, *Prevention, Pre-emption and the Nuclear Option: From Bush to Obama* (Routledge Taylor & Francis Group, 2012) 153

of-State, where over 50 world leaders and international organisations convened to brain storm on the threats of nuclear terrorism with the commitment of addressing them. As at the time of writing this thesis (2017) four Nuclear Security Summits have been held in Washington DC (2010), Seoul (2012), The Hague (2014), and in Washington DC (2016). These summits have achieved commendable progress in safeguarding against nuclear materials and enhancing stronger international institutions in the area of nuclear security.

However, there is an identifiable gap between the UNSC resolutions to prevent the occurrence of nuclear terrorism and some of the global initiatives adopted against international terrorist attacks. These global initiatives which addressed aspects of the problem are driven with the overlapping goal of ensuring global nuclear security. The measures taken thus far to address nuclear security is lopsided because it has not considered insider threats. Illicit transfer or theft of fissile or nuclear materials is possible with the cooperation and coordination of staff working at nuclear facilities.

However, breaching of security abound in the nuclear world as well as both in the national and international security agencies against the background of trust and betrayal. If Mordechai Vanunu the former Israeli nuclear technician can reveal Israel nuclear weapon programme and Edward Snowden a former American Central Intelligence Agency (CIA) personnel can leak classified information, invariably, it necessarily follows that there is the possibility that any corrupt nuclear facility personnel with or without lucrative offer from terrorist organisation can do away with weapon-usage-nuclear-material without authorisation. This possibility is very worrisome especially with the existence of the so called “rogue States.” What is the motivation of rogue States nuclear ambitious programmes? Where does North Korea get their nuclear materials from? Which State(s) is aiding and abating North Korea on its nuclear programmes? These questions speak volumes about the complexities and inter-state alliances associated with nuclear weapons ambitions.

The threat of nuclear terrorism is a rationale for nuclear disarmament. It is important for the international community to be alertive to the existing growing threat of nuclear terrorism, in whatever potential form it may take, ranging from explosion or detonation of ‘dirty’ bomb by terrorists to the destruction of nuclear installations or full-fledged attacks on nuclear facilities. Therefore, the constant awareness of the threats of nuclear terrorism reinforces the need for nuclear weapons disarmament.

3.12 Global Advocacy and Campaign for Nuclear Disarmament

Nuclear weapons proliferation both by States and their potential acquisition by non-State actors remain a global security threat. Besides the five nations of China, France, Russia, United Kingdom and the United States recognised by the NPT as NWS, States like India, Israel, North Korea, and Pakistan are strongly believed to possess nuclear weapons. In addition, more than 35 countries including Germany, Japan, and South Korea have the technological capability to produce them.⁷⁰⁹

In recent past, campaigns founded on global political and diplomatic consensus in view of substantial nuclear arms reduction toward the realisation of complete disarmament

⁷⁰⁹ David Krierger (edt), *The Challenge of Abolishing Nuclear Weapons* (Transaction Publishers, 2011) 6

has increasingly taken place. In the light of this, the UNSC in September 2009 unanimously adopted Resolution 1887, which called for States and International Organisations to make concerted and accelerated efforts toward total nuclear disarmament.⁷¹⁰

In the same vein, the UNGA in December 2015 re-established the Open-Ended Working Group (OEWG) with a special mandate to develop “legal measures, legal provisions and norms for achieving a nuclear-weapon-free world”.⁷¹¹ The OEWG’s special mandate is aimed at developing the findings and conclusions of the “Humanitarian Impact” of the Nuclear Weapons conferences in Oslo, Norway 2013 and Nayarit, Mexico 2014⁷¹² alongside with the “Humanitarian Pledge” adopted on 7 December 2015 by the United Nations General Assembly in Resolution 70/48.⁷¹³ The “Humanitarian Pledge”⁷¹⁴ is a commitment by 120 Member-States of the United Nations to fill the obvious legal gap of nuclear weapons as the only weapons of Mass Destruction (WMD) not explicitly prohibited under international law.⁷¹⁵

The emergence and mandate of the OEWG is an indication that decade of international debates on nuclear disarmament legal frameworks and measures are not yielding the expected results. There would be no need for the OEWG if the NPT, NWFZ treaties and the the UN resolutions on disarmament and multilateral arms control negotiations and treaties are comprehensively allowed to work without States political, diplomatic and military reservations.

In the continuous quest for nuclear disarmament under international law, the International Association of Lawyers against Nuclear Arms (IALANA) works for the elimination of nuclear arms through the strengthening of international law and the development of effective mechanisms toward total nuclear disarmament. The IALANA was founded in Stockholm, Sweden in 1988 and has grown to be an international professional’s organisation with consultative status with the United Nations.⁷¹⁶

As a consultative organ of the United Nations, the IALANA had formed collaborative alliances with other reliable non-state actors committed to the idea of criminalising nuclear weapons threat or use under any guise.⁷¹⁷ Consequently, the IALANA affirms

⁷¹⁰ United Nations Security Council (UNSC) Resolution 1887 on Non-proliferation, Adopted on its 6191st Meeting, September 24 2009

⁷¹¹ The United Nations General Assembly (UNGA) Resolution L.13/REV.1 of the Seventieth Session of the First Committee on General and Complete Disarmament: Taking Forward Multilateral Nuclear Disarmament Negotiations, October 29 2015

⁷¹² Heather Williams et al, “The Humanitarian Impacts of Nuclear Weapons Initiative: The ‘Big Tent’ in Disarmament” Research Paper in International Security March 2015

⁷¹³ United Nations General Assembly (UNGA) 70/48 on Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons, Adopted on the Report of the First Committee (A/70/460), December 7 2015

⁷¹⁴ Ibid

⁷¹⁵ John Kierulf, *Disarmament Under International Law* (Mc Gill-Queens’s Press, 2017) 112

⁷¹⁶ International Association of Lawyers Against Nuclear Arms (IALANA) <http://www.en.ialana.de> accessed 8 May 2016

⁷¹⁷ Siddharth Mallavarapu, *Banning the Bomb: The Politics of Norm Creation* (Pearson Longman, 2007) 43

and emphasises that the use of nuclear weapons violates international law and constitutes as both crime against humanity and crime against peace.⁷¹⁸

Crime against peace was first declared at the 1946 Nuremberg International Military Tribunal as “planning, initiating, or waging of aggressive wars. This according to the tribunal constitute ‘the supreme international crime.’⁷¹⁹ Meanwhile, similar to the crime against peace is being considered today at the international Criminal Court as ‘crime of aggression.’⁷²⁰ Therefore, in the view of the IALANA, any form of nuclear weapons explosion either in testing or actual use would amount to ‘crime against peace’ or ‘crime of aggression’.

The non-state actors which have affiliation with the International Association of Lawyers’ Against Nuclear Arms (IALANA) include: the Australian Lawyers for Nuclear Disarmament (ALND),

Bangladesh Lawyers Association Against Nuclear Arms (BLAANA);

India Lawyers Against Nuclear Arms (ILANA), Movement of Lawyers for the Elimination of Nuclear Weapons (MLENW) in Japan;

New Zealand Lawyers for Nuclear Disarmament (NZLND);

Swedish Lawyers Against Nuclear Arms (SLANR);

Lawyers for Nuclear Disarmament (LND) in the United Kingdom, and the

Lawyers Committee on Nuclear Policy (LCNP) in the United States⁷²¹ amongst others countries.

Significantly, the doggedness of the International Association of Lawyers Against Nuclear Arms (IALANA) in its advocacy for nuclear disarmament led to the historic July 1996 Advisory Opinion of the International Court of Justice (ICJ) on the Legality of the Threat or Use of Nuclear Weapons. The ICJ Advisory Opinion was precipitated by the “World Court Project”. The IALANA in conjunction with the International Peace Bureau (IPB) and the International Physicians for the Prevention of Nuclear War (IPPNW) forged a united cause in 1992 known as the “World Court Project” aimed at bringing nuclear weapon to the international legal arena. Thus, Lawyers, Peace Activists and Health Professionals influenced the World Court through the UNGA request on the legality and use of nuclear weapons.⁷²² The ICJ Advisory Opinion on nuclear weapons is analysed in details in **Chapter 4, section 4.7**

In advancing their collective supports for global advocacy and campaign for nuclear disarmament, four leading international organisations in the health sector: the [World Medical Association (WMA)], the [World Federation of Public Health Associations

⁷¹⁸ Ibid

⁷¹⁹ Kevin Jon Heller, *The Nuremberg Military Tribunal and the Origins of International Criminal Law* (Oxford University Press, 2012)

⁷²⁰ Maura Politi and Giuseppe Nesi, *The International Criminal Court and Crime of Aggression* (Routledge, 2017)

⁷²¹ Siddharth Mallavarapu, *Banning the Bomb: The Politics of Norm Creation* (Pearson Longman, 2007) 43

⁷²² International Court of Justice (ICJ) Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, July 8 1996

(WFPHA)], the [International Council of Nurses (ICN)] and the [International Physicians for the Prevention of Nuclear War (IPPNW)] jointly submitted their contributions on 2 March 2016, in a document entitled “The Health and Humanitarian Case for Banning and Eliminating Nuclear Weapons” to the United Nations. The documents called for the establishment of the Open-Ended Working Group (OEWG) designated with the mandate for legal measures for nuclear disarmament.⁷²³

This health professionals’ document on nuclear disarmament emphasised that the possibility of nuclear war with the existing nuclear armaments would kill more people in few hours than were killed during the entire Second World War. Furthermore, this document is the first international federation of health professionals’ contributions to the dangers of nuclear weapons as a common voice and it allured to the fact the thousands of nuclear weapons in the world largest arsenals could trigger a global ecological collapse.⁷²⁴

Still on the contributions of professional’s advocacy and campaigns for nuclear disarmament, the International Network of Engineers and Scientists Against Proliferation (INESAP) is a global non-governmental association established in 1993 and driven by critical analysis of technical, scientific, and political issues associated with nuclear disarmament and other Weapons of Mass Destruction (WMD) for disarmament. The core objective of the INESAP is the promotion of non-proliferation and disarmament.⁷²⁵

Arguably, engineers and scientists’ contributions to nuclear disarmament debate are crucial in view of the fact that science and technology are the intertwined forces behind the manufacturing and existence of nuclear weapons and as such, their continuing contributions should be held in high esteem. The INESAP utilises an integrated, interdisciplinary and international approach to combine research and actions in establishing a closer interface between nuclear science and disarmament policy⁷²⁶ and expanding the horizons of the international community and policy makers of its networks.

The International Network of Engineers and Scientists Against Proliferation (INESAP) has implemented a project known as: The Independent Group of Scientific Experts (iGSE) on the detection of clandestine nuclear-weapons-usable materials production in May 2006. This project concentrates on the most significant gap and the largest challenges for the verification of non-proliferation. Extensively, the iGSE has developed and demonstrated novel technologies and procedure controls for

⁷²³ International Physician for the Prevention of Nuclear War – The Health and Humanitarian Case for Banning and Eliminating Nuclear Weapons www.ippnw.org/resources-abolition-nuclear-weapons.html accessed 9 May 2016

⁷²⁴ International Physician for the Prevention of Nuclear War – The Health and Humanitarian Case for Banning and Eliminating Nuclear Weapons www.ippnw.org/resources-abolition-nuclear-weapons.html accessed 10 2006

⁷²⁵ International Network of Engineers and Scientists Against Proliferation < <http://www.inesap.org/what-inesap>> accessed 10 May 2016

⁷²⁶ International Network of Engineers and Scientists Against Proliferation < <http://www.inesap.org/what-inesap>> accessed 10 May 2016

environmental sampling methodologies for the detection of clandestine nuclear activities.⁷²⁷

From 1995, two years after its inception, the INESAP has been participating and contributing as a non-state in the Non-proliferation Treaty Preparatory Committee and Review Conferences. In 1996, the INESAP alongside with the IALANA and the IPPNW orchestrated and drafted the model for the proposed Nuclear Weapons Convention (NWC).⁷²⁸ The aforementioned international noble professional bodies of Engineers and Scientists, Lawyers, and Doctors clearly outlined the Model Nuclear Weapon Convention (MNWC) with the potentiality of ascertaining a nuclear-weapons-free world. Thus, their professional contributions to the legal framework on nuclear disarmament is not only worthwhile but also influential and imperative.

In 1997, the government of Costa Rica in appreciative obsession forwarded the draft of the MNWC to the United Nations Secretary General (UNSG) and it is gazetted as UN Doc. A/C.1/52/7.⁷²⁹ As a reiteration, the governments of Costa Rica and Malaysia jointly submitted a revised version of the MNWC to the United Nations General Assembly (UNGA) on 17 December 2007 and it is documented as UN Doc. A/62/650.⁷³⁰ The revised version takes into cognizance relevant technical, political and legal developments surrounding nuclear weapons.

Essentially, the global concern for nuclear disarmament is exemplified in two significant publications: “Global Publications” and “Against Proliferation – Towards General Disarmament” made the International Network of Engineers and Scientists Against Proliferation (INESAP) to stand out in its global campaign for nuclear disarmament. There are also two other international groups: the Global Network Against Weapons and Nuclear Power in Space founded in 1992 in the United States and the International Network of Engineers and Scientists for Global Responsibility (INES) who are also campaigning and advocating for the prevention of nuclear weaponisation in the globally and outer space.⁷³¹

There are international organisations specifically concerned with nuclear disarmament campaign. These include the International Campaign to Abolish Nuclear Weapon Weapons (ICAN), the Nuclear Age Peace Foundation and the Campaign for Nuclear Disarmament (CND). The International Campaign to Abolish Nuclear Weapons (ICAN) is a coalition of global campaigners with the aim of inspiring, persuading and pressurising their governments to initiate and support negotiations for a treaty banning

⁷²⁷ International Network of Engineers and Scientists Against Proliferation < <http://www.inesap.org/what-inesap> > accessed 10 May 2016

⁷²⁸ Edward C. Luke and Michael W. Doyle (eds), *International Law and Organization: Closing the Compliance Gap* (Rowman & Littlefield Publishers INC, 2004) 289

⁷²⁹ Securing Our Survival (SOS): The Case for Nuclear Weapons Convention, Submitted by Costa Rica to the United Nations Secretary-General as a discussion draft, UN Doc A/C 1/52/7, 1997

⁷³⁰ United Nations General Assembly (UNGA) 62nd Session, Agenda Item 98, General and Complete Disarmament: Letter Dated 17 December 2007 from the Permanent Representatives of Costa Rica and Malaysia to the United Nations Address to the Secretary-General, January 18 2008, UN Doc. A/62/650

⁷³¹ Marion Hersh (edt), *Ethical Engineering for International Development and Environmental Sustainability* (Springer, 2015) 134

nuclear weapons. The ICAN was launched in 2007 with more than 400 collaborating partners in 95 countries.⁷³²

Similarly, the Nuclear Age Peace Foundation is a nonpartisan and non-profit international organisation founded in 1982 and committed to a world free of nuclear weapons through its mission of education and advocacy for peace and empowering peaceful leaders. Like the IALANA, the Nuclear Age Peace Foundation also has a consultative status with the United Nations. It has a horizontal organogram comprising of more than 750,000 individuals and groups across the globe that have a vision of the imperative for peace in this Nuclear Age. Through its education programmes, the Nuclear Age Peace Foundation explores the instrumentality of international law to challenge the rationale of countries that justify their reliance upon nuclear deterrence at the expense of potential war of mass annihilation.⁷³³

The Campaign for Nuclear Disarmament (CND) was founded in February 1958 on the advocacy of unilateral nuclear disarmament – the proposal that British should take the initiative and get rid of its own nuclear weapons, irrespective of the actions of other countries. The CND is a United Kingdom based organisation, committed to a non-violent achievement of British nuclear disarmament. Its mission includes calling for the abolition of the Trident nuclear weapon system and the prevention of its replacement. The CND also vehemently opposes the North Atlantic Treaty Organisation (NATO) nuclear policies and nuclear power. The CND firmly stands for the prevention and cessation of wars in which nuclear weapons may be used.⁷³⁴

As the only country that has experienced nuclear bombings in the cities of Hiroshima and Nagasaki, Japan⁷³⁵ is calling for a nuclear-weapon-free world. Addressing a cosmopolitan crowd in the commemoration of the 70th anniversary of the first atomic bombing in the Japanese city of Hiroshima, Japan's Prime Minister Shinzo Abe succinctly states that: "we have to continue our effort to achieve a world without nuclear weapons, it our responsibility and it is our duty".⁷³⁶ Japan's advocacy for nuclear disarmament is predicated on humanitarian value and security principles. The Humanitarian and security dimensions have equal importance to the Japanese government. Japanese public opinion expects the government to take initiatives to promote humanitarian goal through disarmament and as such, the government have made disarmament one of the pillars of Japanese diplomacy since the end of the Second World War.⁷³⁷

From the foregoing, global advocacy and campaigns for nuclear disarmament have immersely contributed to the debate for nuclear disarmament by sensitisation and by creating the awareness for the need for disarmament. The various professional bodies

⁷³² International Campaign to Abolish Nuclear Weapons (ICAN) <https://www.icanw.org> accessed May 10 2016

⁷³³ Nuclear Age Peace Foundation <https://www.wagingpeace.org> accessed May 10 2016

⁷³⁴ Peter Barberis et al, *Encyclopaedia of British and Irish Political Organizations* (Pinter, 2000) 1157

⁷³⁵ Laurence Boisson De Chazournes Philippe Sands (edt), *International Law, the International Court of Justice and Nuclear Weapons* (Cambridge University Press, 1999) 25

⁷³⁶ Maja Zehfuss, '(Nuclear) War and the Memory of Nagasaki: Thinking at the (Impossible) Limit' [2015] Sage Journals 129(1), 57 - 71

⁷³⁷ Yakiya Amano, 'A Japanese View on Nuclear Disarmament' [2002] The Non-proliferation Review 9(10), 132 - 145

have clearly posited that nuclear weapons pose unimaginable global dangers to humanity and as such, the best solution to the disastrous impacts of nuclear weapons is disarmament through the total commitment and political willingness of all States to comply with existing international legal framework on nuclear disarmament.

3.13 The Legal and Humanitarian Imperatives for Nuclear Disarmament

The legal imperative for nuclear disarmament revolves around the legal instruments that both explicitly and implicitly regulate the activities concerning nuclear weapons. On the one hand, the explicit legal instruments include: the newly emerged Treaty on the Prohibition of Nuclear Weapons (TPNW), the Non-proliferation Treaty (NPT), the various Nuclear-Weapon-Free Zone (NWFZ), Treaties, the Partial Nuclear-Test-Ban Treaty (PNTBT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT), Nuclear Terrorism Convention, the United Nation Security Council (UNSC) Resolution 1540, amongst other United Nations (UN) resolutions and multilateral treaties on nuclear disarmament. On the other hand, the implicit instruments are: International Humanitarian Law (IHL), International Human Rights Law, International Environmental Law, and International Criminal Law.

International Humanitarian Law (IHL) which has emphasis and specific regulations on the conduct of hostilities, armed conflicts, or belligerency is consequentially applicable to the use of nuclear weapons. Notably, the IHL does not categorically outlaw nuclear weapons but their use in warfare is prohibited by the IHL rules on distinction, proportionality,⁷³⁸ precaution in attacks and protection of the natural environment⁷³⁹. IHL also prohibits the cause of superfluous injury and unnecessary suffering to combatants.⁷⁴⁰

From the foregoing, there is no legal vacuum or legal gap in view of nuclear disarmament as exponentially upheld by the concept of “Humanitarian Pledge”;⁷⁴¹ rather, there is a gap in the absence of substantive law and a gap in compliance⁷⁴² with the provisions of the various nuclear weapons treaties. The devastation and scale of casualties arising from any use of nuclear weapon stretches the compatibility and codification of International Humanitarian Law (IHL) also known as the Law of War on nuclear weapons into the most conceivable circumstances.⁷⁴³ Therefore, in consolidating the humanitarian principles in International Humanitarian Law (IHL) on

⁷³⁸ Robert Arnold and Noele Quenivet, *International Humanitarian Law and Human Rights Law: Towards New Merger in International Law* (Martinus NIJHOFF Publishers, 2008) 342

⁷³⁹ Francoise Bouchet-Saulnier, *The Practical Guide to Humanitarian Law* (Rowman & Littlefield, 2014) 523

⁷⁴⁰ Yoram Dinstein, *The Conduct of Hostilities Under the Law of International Armed Conflict* (Cambridge University Press, 3rd edn, 2016) 74

⁷⁴¹ Nik Hynek and Michal Smetana, *Global Nuclear Disarmament: Strategic, Political and Regional Perspectives* (Routledge Taylor & Francis Group, 2016) 306

⁷⁴² Gro Nystuen and Kjolv Egeland, ‘A ‘Legal Gap’? Nuclear Weapons Under International Law’ (Arms Control Association, 21 March 2016) www.armscontrol.org/ACT/2016_03?Features/A-Legal-Gap-Nuclear-Weapons-Under-International-Law accessed 13 May 2016

⁷⁴³ Gro Nystuen, ‘Legal Perspectives on Effective Measures, Provisions and Norms Relating to Nuclear Disarmament’ (International Law and Policy Institute (ILPI) Weapons of Mass Destruction Project, 24 February 2016) www.nwp.ilpi.org/?p=5091 accessed 13 May 2016

armed conflicts in the light of nuclear weapons, emergences the concept of “Humanitarian Initiative.”⁷⁴⁴

The emergence of the “Humanitarian Initiative”⁷⁴⁵ – is an intensified global discourse of the unacceptable and unmanageable humanitarian consequences of nuclear weapons debacle, in terms of the bombings of Hiroshima and Nagasaki, as well as the posing potential dangers associated with the present nuclear armaments in the world; the NNWS and non-state actors have continually and unequivocally stood for delegitimization, de-nuclearization, and disarmament of nuclear weapons. The proceeding Section of this Chapter: “Global Advocacy and Campaign for Nuclear Disarmament” underscores this truism against the backdrop of the legitimacy of nuclear weapons deterrence politics upheld by the Nuclear Weapon State (NWS).

The “Humanitarian Initiative” implies the lens of analysis focusing on the humanitarian consequences of nuclear weapons in view of reframing nuclear disarmament and non-proliferation agenda.⁷⁴⁶ The current focus on the humanitarian consequences of nuclear weapons is a derivative of the 2010 Non-proliferation Treaty Review Conference Final Document which legally underpin the humanitarian nuclear doctrine. This conference document specifically emphasises on the “Catastrophic Humanitarian Consequences that would result from the use of nuclear weapons.”⁷⁴⁷

From 2010 to the time of the writing-up of this thesis, four joint statements on the humanitarian dimension of nuclear disarmament with significant universal support were officially submitted in organised international fora: two submissions were made to the UNGA and the other two were submitted at consecutive sessions of the Preparatory Committee (Pre/Comm) of the 2015 Non-proliferation Treaty Review Conference (NPTRC) at the United Nations Headquarters in New York.⁷⁴⁸

Attestations to the support of humanitarian nuclear doctrine were the enormous participations at the Humanitarian Impact of Nuclear Weapon (HINW) conferences. The HINW conference held in March 2013 in Oslo, Norway has 127⁷⁴⁹ countries besides civil society organisations (non-state actors) in attendance. The February 2014 Mexico hosted Humanitarian Impact of Nuclear Weapon (HINW) conference⁷⁵⁰ in Nayariit recorded 146 participations of States and broad spectrum of non-state

⁷⁴⁴ Zeynep Sezgin and Dennis Dijkzeul, *The New Humanitarians in International Practice: Emerging Actors and Contested Principles* (Routledge Taylor & Francis Group, 2016) 288

⁷⁴⁵ Ibid

⁷⁴⁶ Lars Jorgen Roed, ‘The Humanitarian Initiative’ (International Law and Policy Institute (ILPI) Weapons of Mass Destruction Project, 24 February 2016)< www.nwp.ilpi.org/?p=2394> accessed 13 May 2016

⁷⁴⁷ 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 3 - 28 May 2010 (United Nations, Final Document – Volume II(NPT/CONF.2010/50 Vol.II)www.un.org/en/conf/npt/2010 accessed 13 May 2016

⁷⁴⁸ May 2010 (United Nations, Final Document – Volume II(NPT/CONF.2010/50 Vol.II)www.un.org/en/conf/npt/2010 accessed 13 May 2016

⁷⁴⁹ Ramesh Thakur, *Nuclear Weapons and International Security: Collected Essays* (Routledge, 2015) 227

⁷⁵⁰ John Scale Avery, *Collected Essays Volume 2* (Irene Publishing, 2016) 9

actors. While the Vienna, Austria December 2014 HINW conference was attended by 158 States⁷⁵¹ as well as various international organisations.

The legal and humanitarian imperatives for nuclear disarmament are embedded in the deep concern on non-compliance with applicable international law, such as International Humanitarian Law and international treaties on nuclear weapons as well as the catastrophic humanitarian consequences of any use of nuclear weapons. However, States especially the NWS have officially reaffirmed the necessity to comply with all laws applicable to nuclear weapons but progress on nuclear disarmament has been so slow despite their commitments. Consequently, more proactive and pragmatic efforts are required to achieve the goal of nuclear disarmament.

The table below explain some key humanitarian concepts relating to nuclear disarmament:

<i>Humanitarian Concepts Relating to Nuclear Weapons and Disarmament</i>	<i>Meaning</i>
Catastrophic Humanitarian Consequences of Nuclear Weapons	The Catastrophic Humanitarian Consequences of Nuclear Weapons was acknowledged in the 2010 document of the NPT Review conference that any use of nuclear weapons would result in catastrophic humanitarian consequences, stressing that States have the obligations to comply with international humanitarian law.
Humanitarian Pledge	Humanitarian Pledge is a commitment by States to fill the unacceptable “legal gap” associated with nuclear weapons. The Humanitarian Pledge was launched on 9 December 2014 at the conclusion of the Vienna Conference on the Humanitarian Impact of Nuclear Weapons and it offers a platform from which States can and must launch negotiations on a treaty prohibiting nuclear weapons.
Humanitarian Impact of Nuclear Weapons	The Humanitarian Impact of Nuclear Weapons was the theme of the nuclear weapons conferences which began in Oslo, Norway from 4-5 March 2013 attended by 128 States, UN agencies, international organisations, and civil society groups to address the immediate catastrophic effects of nuclear weapons on human societies, environment and health as well as the wider impact and long-term consequences, tending to outweigh the humanitarian preparedness and response capacity.
Humanitarian Initiative	Humanitarian Initiative is a commitment by group of governments and non-government organisations working within the framework of the

⁷⁵¹ Stockholm International Peace Research Institute, *SIPRI Yearbook 2015: Armaments, Disarmament and International Security* (Oxford University Press, 2015) 551

	Non-proliferation Treaty to reframe the debate on nuclear disarmament that gave rise to the negotiating process and the emergence of the Treaty Prohibiting Nuclear Weapons.
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3.14 Conclusion

Multilateral humanitarian discourse associated with nuclear weapons began as soon as nuclear weapons were used on Hiroshima and Nagasaki in Japan. The usage of this weapons on these cities, on two separate occasions during final stages of the Second World War in 1945, as well as nuclear detonations in form of testing by all the NWS and other States with nuclear capabilities form the basis of the humanitarian consequences encapsulated in the concept of humanitarian initiative. Obviously, nuclear weapons do not maim, kill people and wantonly destroy the environment on a daily basis, albeit the subsisting cases of victims of explosions of nuclear radiation. However, from humanitarian point of view, the argument for nuclear disarmament is compelling on the devastating impacts of the use of nuclear weapons. Disarmament may be precautionary and anticipatory measure.

Unarguably, the nuclear disarmament posture which has hidden complexities seems to have been overridden by the optimism of global disarmament campaign mechanisms and the conglomeration of multilateral and international conferences, strategies, and statutory codifications. On the other hand, nuclear disarmament is more problematic especially with views of the NWS.

In supporting the argument and the need for nuclear disarmament, the principles of International Humanitarian Law (IHL) hold sway. Nuclear weapons cannot be used without violating all the principles of IHL. This is not only as a result of collateral damage beyond proportion and military necessity but also on the principle of humanity which implies respect and care for human life. Consequently, many States and regions are determined in promoting nuclear disarmament. This determination resonates in the various Nuclear Weapons Free Zones as regional legal instruments banning nuclear weapons.

In ensuring nuclear disarmament, the nuclear non-proliferation framework provides for States to use nuclear energy for peaceful purposes and to negotiate for complete disarmament. The non-proliferation as a multilateral concern has received deserved global attention for disarmament. Based on the potential devastating effects of nuclear weapons and the nuclear era heralded by the use of atomic bombs in Hiroshima and Nagasaki, nuclear disarmament is not only globally desirable but also achievable.

CHAPTER FOUR

POLITICAL IMPLICATIONS AND DIPLOMATIC INFLUENCES ON THE LEGAL FRAMEWORK FOR NUCLEAR DISARMAMENT

4.1 Introduction

The nuclear age heralded with the atomic bombings of the Japanese cities of Hiroshima and Nagasaki in 1945⁷⁵² have spurred many States to conduct their international affairs with cautious diplomacy. The political implications of the nuclear revolution indicate how nuclear weapons have fundamentally changed the strategic pattern of international politics.⁷⁵³ There is no concurrence or consensus view on sovereign equality of States or States entitlement to possess nuclear weapons as well as the rationale for the doctrine of nuclear deterrence. On the one hand, proponents of nuclear deterrence and the Nuclear Weapon States (NWS) unanimously concurred that nuclear weapons have made the world safer. On the other hand, opponents vehemently differ by upholding that nuclear weapons pose unacceptable dangers of planetary cataclysm.

The history of nuclear diplomacy analogously elicits these divergent opinions. During the devastating Korean fratricidal war (1950 -1953) and there are arguments and counter arguments about the United States as a principal force, making nuclear threats as way to achieve diplomatic aims. Consequently, the efficiency of explicit or implicit nuclear threats becomes both politically and diplomatically controversial.⁷⁵⁴ More recently, North Korea has employ similar strategy in its nuclear weapons programme. With the passage of time, the South and the North Korean countries in 1992 bilaterally established the Joint Declaration on Denuclearization on the Korea Peninsular⁷⁵⁵ as a diplomatic collaboration to minimise nuclear threat.

In the light of this background, this chapter is strategically designed to analyse the political implications and explore the diplomatic influences on the legal framework for nuclear disarmament. Prominent amongst its aims are: the question of sovereign equality, including the rationale for the dichotomous classification of Nuclear Weapons States (NWS) and the Non-Nuclear Weapon States (NNWS) by the NPT, an appraisal of the doctrine of nuclear deterrence – is it a military military illusion or does it provide political solution?

In order to provide effective answers to the controversies raised by the disarmament debate, this chapter equally examines the 1969 Vienna Convention on the Law of Treaties in the light of a framework for nuclear weapons treaties especially the new emerged Treaty on the Prohibition of Nuclear weapons (TPNW). In undertaking this task, the 1996 International Court of Justice (ICJ) Advisory Opinion on the Legality of

⁷⁵² J Poolos, *The Atomic Bombings of Hiroshima and Nagasaki*, (Chelsea House Publishers, 2008) 88

⁷⁵³ Sean M. Lynn-Jones et al, *Nuclear Diplomacy and Crisis Management: An International Security Reader* (The MIT Press, 1990) ix

⁷⁵⁴ Sean M. Lynn-Jones et al, *Nuclear Diplomacy and Crisis Management: An International Security Reader* (MIT Press, 1990) ix

⁷⁵⁵ Marcus Naland, *Avoiding the Apocalypse: The Future of the Two Koreas* (Institute for International Economics, 2000) 418

the Threat or Otherwise of the Use of Nuclear Weapons as well as both the UNGA and UNSC Resolutions on nuclear disarmament will be viewed as yardsticks of measurement on nuclear disarmament mechanisms.

Consequently, this chapter also examines the achievements of the legal framework and the campaign for disarmament, strategies for nuclear disarmament and enforcement of non-proliferation, the United Nations disarmament institutions and resolutions on nuclear disarmament as well as the challenges and hindrances of nuclear disarmament. This chapter addresses the first research objective in connection with the third research question in section 4.4: the doctrine of nuclear deterrence. Military illusion or political solution? Rationale for nuclear disarmament. In the same vein, this chapter equally examines part of the third research objective linked to the first research question in **section 4.11: Strategies for nuclear disarmament and enforcement of nuclear non-proliferation**. The bane of nuclear disarmament is the interface of international politics on the enforcement of the legal framework on nuclear disarmament.

4.2 Nuclear Weapon States (NWS) and their Positions on Nuclear Disarmament from the Perspective of International Politics

Categorically, there are nine subsisting States⁷⁵⁶ that are universally known to possess nuclear weapons by virtue of their productions and detonations and five of these States are officially recognised and legitimised in Article IX (3) of the 1968 NPT as Nuclear Weapon States (NWS).⁷⁵⁷ The nine States that have manufactured, tested, and possess nuclear weapons in order of their year of detonation are:

The United States of America (1945);

The defunct Union of Soviet Socialist Republics [now fully acquired by Russia] (1949),

The United Kingdom 1954;

Israel (Israel initiated its nuclear programme in the 1950s but still concealing its nuclear status through the policy of opacity or strategic nuclear ambiguity),

France (1960), China (1964),

Pakistan (1972), India 1974, and

The Democratic People's Republic of Korea (formerly and commonly known as North Korea) (2006).⁷⁵⁸

The five States recognised by the NPT as NWS which are concomitantly the five permanent members of the UNSC are: China, France, Russia, United Kingdom and the United States. Israel, Pakistan, India, and North Korea are the four *de facto* States possessing nuclear weapons not recognised by the NPT.⁷⁵⁹ South Africa the 10th

⁷⁵⁶ David Hafemeister, *Nuclear Proliferation and Terrorism in the Post-9/11 World* (Springer, 2016)

⁷⁵⁷ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968, art ix (3)

⁷⁵⁸ Martin Griffiths, (edt) *Encyclopaedia of International Relation and Global Politics* (Routledge Taylor & Francis Group, 2005) 606

⁷⁵⁹ Nicholas Zarimpas, *Transparency in Nuclear Warheads and Materials: The Political and Technical Dimensions* (Oxford University Press, 2003) 6

nuclear possessing State eliminated its nuclear armaments in 1991 but did not publicise it until 1993. Similarly, Belarus, Kazakhstan, and Ukraine all former republics of the defunct Soviet Union ceded their nuclear weapons to the Russia Republic after the official dissolution of the USSR in December 31 1991.⁷⁶⁰ There are 183 Non-nuclear Weapon States (NNWS) in the world today,⁷⁶¹ including countries with nuclear ambitions and nuclear capabilities most notably the Islamic Republic of Iran, Iraq, and Libya.⁷⁶²

There is a long history of the all the five *de jure* NWS and the four *de facto* nuclear possessing States commitment in principle to nuclear disarmament. Article VI of the NPT obliges the five NWS as a matter of public international law: “to negotiate in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament.”⁷⁶³ As a corollary, the 1996 ICJ Advisory Opinion on the on the Legality of Threat or Otherwise of the Use of Nuclear Weapons, interpreted the obligation of the NPT Article VI as a requirement to actualise the negotiation on nuclear disarmament to a successful conclusion.⁷⁶⁴

The principles and perspectives of commitment of all nuclear weapons or nuclear possessing States are predicated on national and foreign policy statements.⁷⁶⁵ In reality, nuclear possessing States have not yet seriously and conscientiously focused on practical procedural steps required for negotiation of complete nuclear disarmament as a unified policy goal.

Nevertheless, there is an extensive and appreciative precedent of the United States of America and Russia (the former USSR) in bilateralism regarding arms control since 1969. Both the USA and Russia have been strategically limiting their nuclear capabilities by reducing their nuclear armaments through bilateral treaties. These mutual agreements began with the Strategic Arms Limitations Talks (SALT), held from 1969 to 1972⁷⁶⁶ which characteristically limited only Intercontinental Ballistic Missiles (ICBMs) and Submarine-Launched Ballistic Missiles (SLBMs)⁷⁶⁷ and resonated in the Anti-Ballistic Missile (ABM) Treaty of 1972 that prohibited nationwide strategic missile defence.⁷⁶⁸ However, for reasons of its homeland security, America eventually

⁷⁶⁰ Ibid

⁷⁶¹ ⁷⁶¹ Nicholas Zarimpas, *Transparency in Nuclear Warheads and Materials: The Political and Technical Dimensions* (Oxford University Press, 2003) 6

⁷⁶² Robert S. Litwak, *Rogue State and U.S. Foreign Policy: Containment After Cold War* (The Johns Hopkins University Press, 2000) 52

⁷⁶³ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968, art VI

⁷⁶⁴ International Court of Justice (ICJ) Legality of the Threat or Use of Nuclear Weapons: Advisory Opinion of 8 July 1996, Obligation to Nuclear Disarmament, para 98 - 103

⁷⁶⁵ International Panel on Fissile Materials (IPFM), *Reducing and Eliminating Nuclear Weapons: Country Perspectives on the Challenges to Nuclear Disarmament* (IPFM Report, 2010) 2

⁷⁶⁶ Jeffrey A. Larsen and James M. Smith, *Historical Dictionary of Arms Control and Disarmament* (Scarecrow Press Inc, 2005) 203

⁷⁶⁷ Edmund Jan Ozmanczyk and Anthony Mango (edt) *Encyclopaedia of the United Nations and International Agreements* (Routledge, 3rd edn: N to S, 2003) 2238

⁷⁶⁸ Treaty Between the United States of America and the Union of Soviet Socialist Republic on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty), May 26 1972

withdrew from the AMB Treaty on 13 June 2002 and thus consequently abrogated the treaty.⁷⁶⁹

In the course of the Cold War and the attendant increase of warheads and the limitations on the numbers of deployed launchers associated with START I, II and III, the United States and Russia negotiated and enacted the Strategic Offensive Reductions Treaty (SORT) in 2002. The SORT under its Obligations provides for significant reduction of deployed strategic nuclear warheads to a range of up to 1,700 – to the maximum of 2,200.⁷⁷⁰ Conversely, the SORT has suffered from the deficiencies on verification and compliance reminiscence of the START I regime. The absence of verification and inefficiency in its compliance consequently led to the signing of the New START Treaty on 8 April 2010 which subsequently entered into force on 5 February 2011.⁷⁷¹ This New START Treaty limits the United States and Russia to no more than 1,550⁷⁷² deployments of warheads and 700 launchers by 2018.⁷⁷³

The United States and Russia which still hold over 95% of the world's nuclear weapons amounting to a total of 19,000 units⁷⁷⁴ are consciously reducing the size of their nuclear armaments. However, the general view among other nuclear and non-nuclear states alike is that these two nuclear super powers should still reduce the deployment of their nuclear warheads from thousands to hundreds to demonstrate the seriousness of disarmament process. Consequently, other states will equally take significant steps toward nuclear disarmament.⁷⁷⁵

The United States Nuclear Posture

On 5 April 2009, in Prague, Czech Republic President Barack Obama of the United States publicly declared that the United States was committed to seeking “the peace and security of a world without nuclear weapons. He specified this commitment by stating clearly, “this goal will not be reached quickly – perhaps not in my life lifetime”⁷⁷⁶. Essentially, he underscored the America position on nuclear weapons thus: “as long

⁷⁶⁹ Sean D. Murphy, *United States Practice in International Law: 2002 -2004* (Cambridge University Press, 2005) 365

⁷⁷⁰ Treaty Between the United States of America and Russian Federation on Strategic Offensive Reductions (SORT or The Moscow Treaty), May 24 2002

⁷⁷¹ Treaty Between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (NEW START), April 8 2010

⁷⁷² Stephen J. Cimbala, *The Nuclear Disorder: Challenges to Deterrence and Strategy* (Routledge Taylor & Francis Group, 2015) 112

⁷⁷³ Ibid, p 5

⁷⁷⁴ Stein Braten, *Roots and Collapse of Empathy: Human Nature at its Best and at its Worst* (John Benjamins Publishing Company, 2013) 230

⁷⁷⁵ Micah Zenko, *Towards Deeper Reduction in U.S. and Russian Nuclear Weapons* (Council on Foreign Relations: Centre for Preventive Action, Council Special Report No.57, November 2010) 3

⁷⁷⁶ Therese Delpech, *Nuclear Deterrence in the 21st Century: Lessons from the Cold War for a New Era of Strategic Piracy* (RAND Corporation, 2012) 11

as nuclear weapons exist, the United States will maintain a safe, secure and effective arsenal.⁷⁷⁷

The report of the Nuclear Posture Review (NPR) of the Obama Administration was officially released in April 2010, formalising this perspective by establishing a goal of nuclear disarmament, but contradictorily with a commitment to retain the U.S. triad of nuclear-weapon delivery system. This implies a life extension for more than one thousand nuclear warheads and the modernisation of the U.S. nuclear weapon production complex.⁷⁷⁸

In its specific direct reference to nuclear disarmament, the Nuclear Posture Review (NPR) provide for “initiating a comprehensive national research and development program to support continued progress towards a world free of nuclear weapons, including works on verification technologies and the development of transparency measures.”⁷⁷⁹ Significantly, the Obama Administration’s NPR posits that the United States will not use or threaten to use nuclear weapons against NNWS that are party to the NPT and in compliance with nuclear non-proliferation obligation.⁷⁸⁰

Russia Nuclear Posture

On 1 April 2009, Russian President Dmitry Medvedev joined President Obama in a meeting of mutual interest ahead of the G20 summit in London on nuclear disarmament in expressing support for “a nuclear weapon free world.” However, in principle Russia tenaciously holds that “the prevailing view in Russia’s political-military leadership is that nuclear weapons play a key role in ensuring Russia’s security.”⁷⁸¹

Practically, Russia is presently replacing its aging strategic nuclear weapon delivery system by the process of modernising and recapitalising its entire arsenal.⁷⁸² In February 2011, Vladimir Popovkin, Russia’s First Deputy Minister of Defense announced that Moscow would spend about \$70 billion on Russia’s Strategic nuclear force between 2011 and 2020.⁷⁸³ The former President Medvedev reaffirmed that the process will continue and Russia’s national shield will always be effective and sufficient for protecting its national interest.⁷⁸⁴

⁷⁷⁷ Therese Delpech, *Nuclear Deterrence in the 21st Century: Lessons from the Cold War for a New Era of Strategic Piracy* (RAND Corporation, 2012) 11

⁷⁷⁸ Department of Defense United States of America, *Nuclear Posture Review Report* (Secretary of Defense 1000 Defense Pentagon Washington, DC 2030 1 – 1000, 2010) 1

⁷⁷⁹ Ibid

⁷⁸⁰ Ibid

⁷⁸¹ David Santoro, *Treating Weapons Proliferation: An Oncological Approach to the Spread of Nuclear Biological and Chemical Technology* (Palgrave Macmillan, 2010) 235

⁷⁸² Muthiah Alagappa, *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia* (Stanford University Press, 2008) 128

⁷⁸³ Russian Strategic Nuclear Forces, Russia to Spend \$70 Billion on Strategic Forces by 2020 (24 February 2011) www.russianforces.org/blog/2011/02/russia_to_spend_70_billion_on.shtml accessed 9 June 2016

⁷⁸⁴ IPFM – International Panel on Fissile Material, *Reducing and Elimination Nuclear Weapons: Country Perspectives on the Challenges to Nuclear Disarmament* (International Panel on Fissile Material, 2010) www.fissilematerials.org accessed 9 June 2016

The United Kingdom Nuclear Posture

The United Kingdom's relationship with nuclear weapons dates back to June 1942 when British scientists collaborated with American and Canadian scientists in the famous Manhattan Project.⁷⁸⁵ The current United Kingdom's nuclear forces are entirely sea-based, consisting of four Vanguard-classed ballistic missile submarines (SSBNs), each carrying up to 16 Trident II D-5 Submarine-Launched Ballistic Missile (SLBM).⁷⁸⁶ The UK's strategic submarine fleet is domiciled at Her Majesty's Naval Base in the Clyde, Scotland, and its operational nuclear warheads are store in Coulport Ammunition Base.⁷⁸⁷

In December 2006, the UK parliament through the former Prime Minister Tony Blair presented a White Paper entitled: *Future of the United Kingdom Nuclear Deterrent*. The White Paper estimated replacing all four submarines would amount to a cost of between GBP 15 – 20 billion and the current Vanguard-class SSBNs will most likely be leaving service in 2024.⁷⁸⁸

In March 2007, the United Kingdom in a parliamentary decision adopted the twin track strategy of laying the ground-work for replacing its Trident nuclear weapon system while committing to foster positive conditions for global abolition of nuclear weapons. However, there is the existence of deep-seated opposition to nuclear weapons in Scotland and in the Labour Party in Britain; in challenging the cost and rationale associated with the building of ballistic missiles and submarine-based nuclear system to replace the Trident.⁷⁸⁹

In February 2009 David Miliband (the then UK foreign and Commonwealth Secretary) issued an official study entitled: *Lifting the Nuclear Shadow: Creating the Conditions for Abolishing Nuclear Weapons*. This study laid out a perspective on moving towards disarmament.⁷⁹⁰ Antithetically, the UK continues to invest in upgrading its nuclear warhead R&D and production complex. In 2016, the "Main Gate" spending decision on the replacement of the UK Trident was delayed to 2019 and upon approval, the new submarine-based nuclear system is expected to enter into service in 2028.⁷⁹¹

The UK nuclear armaments are purely sea based. They include the four Vanguard – class ballistic missile submarines (SSBN) and the four submarine launched ballistic

⁷⁸⁵ John Herd Thompson and Stephen J. Randall, *Canada and the United States: Ambivalent Allies* (University of Georgia Press, 4th edn, 2008) 115

⁷⁸⁶ House of Commons Public Account Committee, *The United Kingdom's Future Nuclear Deterrent Capability* (Eleventh Report of Session 2008 -09, Ordered by the House of Commons 9 February 2009) 7

⁷⁸⁷ Jenifer Mackby and Paul Cornish (eds), *U.S. – UK Nuclear Cooperation After 50 Years* (The Centre for Strategic and International Studies (CSIS) Press, 2008) 129

⁷⁸⁸ House of Common Defence Committee, *The Future of the United UK's Strategic Nuclear Deterrent* (The White Paper Ninth Report of Session 2006 – 07, Vol II, Ordered by the House of Commons 27 February 2007) 18

⁷⁸⁹ House of Commons Foreign Affairs Committee, *Global Security: UK – US Relations* (Sixth Report of Session 2009 -10,) 93

⁷⁹⁰ Nick Ritchie, *A Nuclear Weapons Free World? Britain, Trident and the Challenges Ahead* (Pgrave Milcmillan, 2012) 29

⁷⁹¹ Nuclear Threat Initiative (NTI), 'United Kingdom: Nuclear' (Official Document Analysis, August 2015) www.nti.org/learn/countries/united-kingdom/nuclear accessed 11 June 2016

missiles (SLMB). Various factors most likely⁷⁹² influenced the UK government resolution to pursue an autonomous nuclear weapons programme. These include the perceived diminish military and economic strength after the world wars and as well as the cold war. Ultimately, the UK considered nuclear weapons as a means of maintaining the status of world power and as self-defence and deterrent against possible nuclear attack.

France Nuclear Posture

France has been a strong supporter of an early start of negotiations on the Fissile Material Cut-off Treaty (FMCT).⁷⁹³ Between 1990 and 2008, France completed a 50-percent unilateral reduction of its nuclear armaments to less than 300 warheads.⁷⁹⁴ Consequently, France combines a significant and exemplary disarmament record and a reluctance to subscribe to total elimination as the ultimate objective of the disarmament process. Therefore, French policy on disarmament tends to create mixed perception if not misperception⁷⁹⁵ vis à vis the genuineness to the commitments to nuclear disarmament.

The unique nuclear history and policy developed in the last 50 years by France has an established robust “French Nuclear Exception” characteristic of strong political and public support for continuation of current nuclear policy. It is a nuclear policy deeply rooted in history emphasising nuclear independence and the relevance of deterrence; and an ambivalent but evolving approach to nuclear disarmament, combined with a perceived proactive commitment to non-proliferation.⁷⁹⁶

In July 2009, France joined the United States, the United Kingdom, Russia and other G8 nations in a joint statement declaring, “We are all committed to seeking a safer world for all and to create the conditions for a world without nuclear weapons.”⁷⁹⁷ In April 2013, France’s White Paper on *Defence and National Security* statement that France must maintain its nuclear deterrent to prevent any state from infringing on its national vital interest.⁷⁹⁸

China Nuclear Posture

China has long history of involvement negotiating an international legal instrument on complete prohibition and destruction of nuclear weapons with a view of achieving a nuclear free world. China holds that “Nuclear disarmament should be a just and

⁷⁹² Nik Hynek and Michal Smetana, *Global Nuclear Disarmament: Strategic, Political and Regional Perspectives* (Routledge, 2015) 226

⁷⁹³ Camille Grand et al, *U.S. – Europe Non-proliferation Perspective: A Transatlantic Conversation* (Center for Strategic & International Studies (CSIS), 2009) 10

⁷⁹⁴ Camille Grand et al, *U.S. – Europe Non-proliferation Perspective: A Transatlantic Conversation* (Center for Strategic & International Studies (CSIS), 2009) 10 9

⁷⁹⁵ IPFM – International Panel on Fissile Material, *Reducing and Elimination Nuclear Weapons: Country Perspectives on the Challenges to Nuclear Disarmament* (International Panel on Fissile Material, 2010) www.fissilematerials.org accessed 11 June 2016

⁷⁹⁶ IPFM – International Panel on Fissile Material, *Reducing and Elimination Nuclear Weapons: Country Perspectives on the Challenges to Nuclear Disarmament* (International Panel on Fissile Material, 2010) www.fissilematerials.org accessed 11 June 2016

⁷⁹⁷ Ibid

⁷⁹⁸ French Government, *Defence and National Security* (White Paper, 2013) ch 6 Implementing the Strategy

reasonable process of gradual reduction towards a downward balance such that any measure of nuclear disarmament should follow the guidelines of promoting global strategic balance and stability, upholding the principle of undiminished security for all".⁷⁹⁹

In 2006, China stated in its White Paper: *The Fundamental Goal of China's Nuclear Strategy* that its purpose for developing nuclear weapons was to guard itself against nuclear coercion and blackmail.⁸⁰⁰ In 2009, Beijing's White Paper on *National Defence* called on all NWS to make an unequivocal commitment to the effective destruction of nuclear weapons, undertake to stop research and develop new types of nuclear weapons and reduce the role of nuclear weapons in their national security policies.⁸⁰¹ In the same vein, China joined the other Permanent members of the UNSC on 24 September 2009 in Security Council Resolution 1887 on Non-proliferation commitment to seek safer world for all and to create the condition for world without nuclear weapons.⁸⁰²

China is the first NWS to adopt a nuclear No First Use (NFU) – a policy and an official pledged not to use nuclear weapon against NNWS.⁸⁰³ In May 2004, China joined the Nuclear Supplier Group (NSG).⁸⁰⁴ Also, China became the first NWS to ratify the Additional Protocol of the International Atomic Energy Agency (IAEA) in March 2002.⁸⁰⁵ In its 2013 White paper on Defence, China reaffirms its commitment on its current nuclear posture that focuses on survivability and maintaining second-strike capability.⁸⁰⁶

China nuclear posture is quite clear, it promised not to use nuclear weapons unless nuclear weapons are used against it. This seems to be the most advanced nuclear weapons deterrence policy and its worth commending.

Israel, India and Pakistan, the trio nuclear possessing states that are not party to the NPT⁸⁰⁷ and North Korea which withdrew its membership from the Treaty in 2003⁸⁰⁸, have directly or indirectly indicated support for the attainment of total nuclear disarmament. Israel, the only nuclear weapons possessing State in the Middle East

⁷⁹⁹ IPFM – International Panel on Fissile Material, *Reducing and Elimination Nuclear Weapons: Country Perspectives on the Challenges to Nuclear Disarmament* (International Panel on Fissile Material, 2010) www.fissilematerials.org accessed 13 June 2016

⁸⁰⁰ David C. Gompert and Philip C. Saunders, *The Paradox of Power: Sino-American Strategic Restraint in an Age of Vulnerability* (NDU Press, 2011) 52

⁸⁰¹ Evan S. Medeiros, *China's International Behavior: Activism, Opportunism and Diversification* (RAND Corporation, 2009) 20

⁸⁰² United Nations Security Council (UNSC) Resolution 1887 on Non-proliferation and Nuclear Disarmament, 24 September, 2009

⁸⁰³ Baohui Zhang, *China's Assertive Nuclear Posture: State Security in an Anarchic International Order* (Routledge Taylor & Francis Group, 2015) 5

⁸⁰⁴ Nan Li Chinese Civil-Military Relation: *The Transformation of the People's Liberation Army* (Routledge Taylor & Francis Group, 2010) 38

⁸⁰⁵ Luciano Maiani et al, *International Cooperation for Enhancing Nuclear Safety, Security, Safeguards and Non-proliferation* (Springer International Publishing, 2016) 55

⁸⁰⁶ Fiona S. Cunningham and Taylor M. Fravel, 'Assuring Assured Retaliation: China's Nuclear Posture and U.S.-China Strategic Stability [2015] *International Security* 24(1), 7 - 50

⁸⁰⁷ Marie Isabelle Chevrier, *Arms Control Policy* (ABC-CLIO, 2012) 88

⁸⁰⁸ James D. Fry, *Legal Resolution of Nuclear Non-Proliferation Disputes* (Cambridge University Press, 2013) 148

views nuclear weapons elimination in regional security terms, as a vision of the Middle East evolving into a zone free of nuclear weapons as well as ballistic missiles.⁸⁰⁹ In 2003, Israel deployed submarine launched nuclear armed cruise missiles together with land-based missiles and nuclear capable fighter jet delivery system, creating its own nuclear triad.⁸¹⁰ From the regional perspective, Israel has no basis of having nuclear weapons as the only nations that possess nuclear weapons in the Middle East.

Indian and Pakistan Nuclear Posture

India, in spite of an earlier clear position for a time-bound process for nuclear disarmament, India has chosen to maintain a nuclear armament until there is universal global disarmament.⁸¹¹ Also, Pakistan has clamoured for total disarmament of nuclear weapons with a specified time frame, but with the reservation it will retain its nuclear weapons as long as India does. Both India and Pakistan are still in the process of producing fissile material for additional nuclear weapons and the developing of longer-range delivery systems such as ballistic missiles and cruise missiles.⁸¹²

North Korea Nuclear Posture

North Korea's position on nuclear disarmament has been wrapped up in its relationship with the United States of America. Since 2003, North Korea has established a six-party dialogue with South Korea, Japan, China, Russia and the United States on the denuclearisation of the Korean Peninsula. This dialogue was suspended in April 2009. The perceived uncertainties about North Korea's nuclear programme after the death of Kim Jong Il and its dispute with the US over the long range missile tests have been ongoing. North Korea launch of a rocket in April 2012, and declared all hitherto agreements with the US void and conducted a nuclear test in February 2013. Thus far, North Korea has conducted multiple missiles and nuclear weapons tests including in 2006, 2009, 2013, 2016 and 2017. In September 2015, North Korea publicly announced that all its nuclear facilities were in normal operation with ongoing mission to improve the quality and quantity of its nuclear stockpile.⁸¹³

4.3 The Dichotomy between the Nuclear Weapon States (NWS) and Non-Nuclear Weapon States (NNWS): The Question of Sovereign Equality

The dichotomous differentiation of NWS and NNWS is codified in Article IX(3) of the Non-Proliferation Treaty (NPT) thus: ...“For the purposes of this Treaty, a nuclear weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.”⁸¹⁴ The five States that have met this provisional conditionality by virtue of their manufacturing and years of testing of

⁸⁰⁹ Chen Kane and Egle Murauskaite, *Regional Security Dialogue in the Middle East: Changes, Challenges and Opportunities* (Routledge Taylor & Francis Group, 2014) 79

⁸¹⁰ Etel Solingen, *Nuclear Logics: Contrasting Paths in East Asia and Middle East* (Princeton University Press, 2007) 187

⁸¹¹ VR Raghavan, *Nuclear Disarmament: India EU Perspectives* (VIJ books India Pvt Ltd, 2011) 2

⁸¹² Martin B. Kalinowski, *International Control of Tritium for Nuclear Non-proliferation and Disarmament* (CRS Press, 2004)

⁸¹³ Stockholm International Peace Research Institute (SIPRI), *Armaments, Disarmament and International Security* (Oxford University Press, 2007) 478

⁸¹⁴ The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), 1 July 1968, art IX (3)

nuclear weapons are: The United States of America (1945), Russia – the former Soviet Union (1949), the United Kingdom (1954), France (1960) and China (1964).⁸¹⁵ Although, the NPT legitimizes these nations as NWS, it also establishes in Article VI that they are to:

“Pursue negotiations in good faith on effective measures relating to cessation of nuclear arms race at an early date and to nuclear disarmament”.⁸¹⁶ This presupposes that they are not required to build and maintain their nuclear armaments in perpetuity.

By virtue of the NPT, official recognition of the above five States as NWS, all the other 159 States of the NPT⁸¹⁷ and the rest of the world regardless of their nuclear capabilities, ambition and possession after 1 January 1967, are classified as NNWS. The classification of the rest world as NNWS against the backdrop of the five NWS resonates in the dual concepts of “Positive Security Assurance” (PSA) and Negative Security Assurance” (NSA). On the one hand, Positive Security Assurance is a guarantee by a NWS that it will come to the aid of a NNWS if it is attacked by another State with nuclear weapons.⁸¹⁸ On the other hand, Negative Security Assurance is an undertaking by a NWS not use or threatens to use nuclear weapons against a Non-Nuclear Weapon State NNWS.⁸¹⁹

Fully aware of the effects of the dichotomy between NWS States and NNWS, the UNSC in 1968 adopted resolution 255: “Question Relating to Measures to Safeguard Non-Nuclear Weapon States” parties to the NPT”.⁸²⁰ This resolution underscores the PSA to the NNWS that were concerned that by joining the NPT which prohibits their acquisition of nuclear weapons, such membership would put them at risk of possible nuclear attack.

The Resolution 255 and its PSA posture was designed to encourage NNWS to joined the NPT. In the same vein, the UNSC in 1995 adopted Resolution 984 which reaffirms that NNWS would receive assurance that “the Security Council, and above all its NWS permanent members will act immediately in accordance with relevant provisions of the Charter of the United Nations” to protect NNWS against attacks or threats of aggression relating to use or potential use of nuclear weapons.⁸²¹ As a result of the collaborative security benefits attached to these resolutions, other NNWS who are not State party members of the NPT began to lobby for international legally binding instrument(s) supporting Negative Security Assurance which they considered as more encompassing.

⁸¹⁵ Alexander Nikitin and Morten Bremer Maerli, *Turning Priorities in Nuclear Arms Control and Non-Proliferation: Comparing Approaches of the Russia and the West* (IOS Press, 2008) 46

⁸¹⁶ The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), July 1 1968 no 57, art VI

⁸¹⁷ Tariq Rauf, ‘The 2015 NPT Review Conference: Setting the Record Straight (Stockholm International Peace Research Institute [SIPRI], 24 June 2015) www.sipri.org/node/384 accessed 17 June 2016

⁸¹⁸ James J. Wirtz and Peter R. Lavoy, *Over the Horizon Proliferation Threats* (Stanford University Press, 2012) 257

⁸¹⁹ Ibid, 256

⁸²⁰ United Nations Security Council (UNSC) Resolution 255, Question Relating to Measures to Safeguard Non-Nuclear-Weapon States Parties to the Treaty on the Non Proliferation of Nuclear Weapons, 19 June 1968

⁸²¹ Ibid, Resolution 984, On Security Assurance against the Use of Nuclear Weapon to Non-Nuclear Weapon States that are Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, 11 April 1995

The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) Additional Protocol of 1968 was the first legally binding instrument that lends credence to NSA. This Treaty covering Latin America and the Caribbean as a Nuclear Weapon Free Zone (NWFZ) was strongly supported by the United States of America. The U.S. signed an undertaking, promising not to use, or threatened to use nuclear weapons against signatories to the Treaty with the conditional exemption that, if any signatory of the Treaty is working in conjunction with any other Weapon NWS.⁸²² This exemption is applied when a signatory of the treaty enter into an alliance with any other NWS.

In recognition of the quest for NSA, the 1978 Final Document of the First Special Session of the UNGA on Disarmament, made representations unbehalf of the NNWS by asking the NWS to “pursue efforts to conclude appropriate, effective arrangements to assure non-nuclear weapon states against the use or threat of use of nuclear weapons”.⁸²³

The sharp disparity created by the NPT between the five Nuclear Weapon States NWS who are concomitantly the five Permanent Members of the UNSC and the rest of the world as NNWS, raised the fundamental research question of, what is the sovereign equality implications of this classification? Sovereign equality is a concept under positive law embedded in the UN charter which every independent State (member of the UN) posses the same rights and obligations as any other independent State in international law.⁸²⁴

Based on this legal truism, many developing countries who are of course NNWS, perceived the NPT as promoting hegemony of the States NWS to the NNWS. This assertion is exacerbated by the perceived reluctance and the insignificant progress made on nuclear disarmament by the NWS; with the obvious absence of proscriptive sanctions contained in the NPT. Thus, undermining the principle of sovereign equality.

Fundamentally, a group of 120 countries of Non-Aligned Movement (NAM), NNWS and mostly from the Asia and Africa continents, representing political, economic and cultural interest of the developing countries, made a proposal of an action plan to the NWS in the 2010 NPT Review Conference, for the elimination of all nuclear weapons in an irreversible and verifiable procedure in tripartite successive phrases: first phase 2015 – 2020; second phase 2020 - 2025; and third phase 2025 - 2030.⁸²⁵

It could be argued, if the five NWS have right of entitlement to possess nuclear weapon, under the concept of sovereign equality, inferentially, it necessarily follows that every other nation in the world should also have the same right of entitlement to possess nuclear weapons. Consequently, the reality of the five NWS as concomitant

⁸²² Additional Protocol II to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco), April 1 1968, art III

⁸²³ First Special Session of the United Nations General Assembly (UNGA) on Disarmament, Held at the United Nations Headquarters New York, 23 May to 1 July 1978, Final Document

⁸²⁴ Michael Byers and George Nolte, *United States Hegemony and the Foundation of International Law* (Cambridge University Press, 2003) 118

⁸²⁵ Tariq Rauf, ‘The 2015 NPT Review Conference: Setting the Record Straight (Stockholm International Peace Research Institute [SIPRI], 24 June 2015) www.sipri.org/node/384 accessed 17 June 2016

Permanent Members of the UN Security with decisive veto power on global security matters is contrary to the legal maxim: *Nemo iudex in causa sua* (no one should be a judge in his own cause). This further re-emphasise the democratic deficit in world governance and of the UNSC, security architectural structure. The whole idea of sovereign equality under the UN charter seems to be an illusion

4.4 The Doctrine of Nuclear Deterrence: Military Illusion or Political Solution? Rationale for Disarmament

Prior to the fall of the Berlin Wall,⁸²⁶ the dissolution of the defunct USSR⁸²⁷ and the appearance of asymmetric warfare and nuclear terrorism⁸²⁸ as prototypes of armed conflict, nuclear deterrence was not a fashionable and contemporaneous public discourse. The concept of nuclear deterrence which is paramount to the nuclear age⁸²⁹ follows the rationale of the first use principle: States reserve the right to use nuclear weapons in self-defence against an armed attack threatening their vital security interests.⁸³⁰ Intrinsically, it implies that the role of nuclear weapons and nuclear deterrence is neither limited nor principally intended to deter the use of nuclear weapons, rather it deters nuclear war itself.⁸³¹

Nuclear deterrence is the rationale used by the NWS to justify their possession and maintenance of their nuclear warheads and armaments.⁸³² Their argument holds that if a nation has nuclear capability to launch a nuclear attack by inflicting catastrophic and collateral damage on another, the later will be deterred from doing so by refraining from attacking the former. Consequently, proponents of nuclear deterrence claim that it is responsible for the fact that there has been no nuclear war between the NWS.⁸³³

Due to the strategic nature of nuclear deterrence, the whole global population is unwittingly subject to the abeyance of a tense peace fraught with danger. Any peace perceived to have been created by the doctrine of nuclear deterrence is analogous to a peace existing between two people, holding guns to each other's heads with their fingers on the triggers. The fact remains that since there has been no nuclear war for more than seventy years after the use of nuclear weapons in Hiroshima and Nagasaki, there is no guarantee that nuclear war cannot happen before the next fifty or one hundred years in spite of the persuasive arguments in favour of nuclear deterrence. Only a single failure of deterrence theory is enough to ignite nuclear war and obliterate

⁸²⁶ Mirjam Van Reinsen, *Windom of Opportunity: EU Development Co-operation Policy After the End of the Cold War* (Africa World Press, 2009) 178

⁸²⁷ James Hughes and Gwendolyn Sasse, *Ethnicity and Territory in the Former Soviet Union: Regions in Conflict* (Routledge Taylor & Francis Group, 2002) 148

⁸²⁸ Ramesh Chandra, *Global Terrorism: Global Crime Trends* (Kalpaz Publications, 2003) 92

⁸²⁹ Sidney D. Drell, *Facing the Treat of Nuclear Weapons* (University of Washington Press, 1989) 13

⁸³⁰ Avner Cohen and Steven Lee, *Nuclear Weapons and the Future of Humanity: The Fundamental Question* (Rowman & Allnheld Publishers) 15

⁸³¹ Par Olivier Debouzy, 'Nuclear Deterrence – The Permanent and the Changing' (26 November, 2009) <www.diploweb.com/Nuclear-deterrence-the-permanent.html> accessed 22 June 2016

⁸³² Nick Ritchie, *A Nuclear Weapons – Free World? Britain, Trident and the Challenges Ahead* (Palgrave Macmillan, 2012) 71

⁸³³ Patric M. Morgan, *Deterrence Now* (Cambridge University Press, 2013) 36

hundreds of millions of people with unimaginable economic and environmental damage to planet earth.

For nuclear deterrence to continue work effectively, NWS and States with nuclear capabilities have to engage in rational behaviour. Successful deterrence requires rational opponents who dread the devastating effects of nuclear war and therefore act to prevent nuclear war which could end humanity.⁸³⁴

Throughout the period of the Cold War, the whole of humanity lived with the palpable threat of Mutually Assured Destruction (MAD). Today, after decades of the Cold War, humanity is living in another dimension of MAD – Mutually Assured Delusions.⁸³⁵ The dimension of fear embedded in the delusion of deterrence doctrine, that nuclear weapons provide protection against nuclear attacks and the reliance on nuclear armaments for security in the 21st century. Certainly, nuclear deterrence cannot work for the NWS and the rest of the world against terrorist organisations that could come into the possession of nuclear weapons. The concept of Mutually Assured Delusions is what give rise to the military illusion of nuclear deterrence doctrine.

Reciprocating the exercise of nuclear deterrence is not enough to deter nuclear conflict for two reasons. First, nuclear deterrence must be proportional to the contention of a given conflict, as nuclear deterrence is not credible without the contemplation of the actual use of nuclear weapons.⁸³⁶ This consequently raises the second reason of possible circumvention of nuclear deterrence.⁸³⁷

The later reason was a subject of intense and protracted debate in NATO (North Atlantic Treaty Organisation) military doctrine and resulted in the change in Alliance Military Doctrine from massive retaliation to flexible response. The doctrine of flexible response was formalised at the 1962 Athens Summit and became official doctrine of MC 14/3 by the (Military Committee) in 1967.⁸³⁸ Its effective basic principle held that NATO's deterrent posture has to put a potential aggressor in the position to determine whether to escalate conventional weapon aggression to nuclear attack.⁸³⁹

To avoid any nuclear war, NATO has to put in place sufficient and efficient conventional forces capable of resisting any aggressor of the 1955 Warsaw Pact. Obviously, Western nuclear deterrence is an amount to an encouragement of prudence on the side of countries desiring to upset regional or global balance through the use or threat of military might.⁸⁴⁰

⁸³⁴ Par Olivier Debouzy, 'Nuclear Deterrence – The Permanent and the Changing' (26 November, 2009) <www.diploweb.com/Nuclear-deterrence-the-permanent.html> accessed 22 June 2016

⁸³⁵ David Krierger, *The Challenge of Abolishing Nuclear Weapons* (Transaction Publisher, 2011) 13

⁸³⁶ Therese Delpech, *Nuclear Deterrence in the 21st Century: Lesson from the Cold War for a New Era of strategic Piracy* (RAND Corporation, 2012) 12

⁸³⁷ *Ibid*

⁸³⁸ Phil H. Gordon, *NATO's Transformation: The Changing Shape of the Atlantic Alliance* (Rowman & Littlefield Publishers, Inc) 36

⁸³⁹ Phil H. Gordon, *NATO's Transformation: The Changing Shape of the Atlantic Alliance* (Rowman & Littlefield Publishers, Inc) 35

⁸⁴⁰ Julian Lindley-French and Yves Boyer, *The Oxford Handbook of War* (Oxford University Press, 2012,) 170

There is new order of military might or an extended nuclear deterrence which expresses or implies a promise made by the NWS to other NNWS to bring their deterrent forces to bear in order to guarantee their security against blackmail, threat or aggression from third parties.⁸⁴¹

This extended order underpins the military and political dimensions of the entire gamut of the doctrine of nuclear deterrence. The deterrence dynamism of a political nature and its military role of the use of nuclear weapons is a puzzling and serious problem. Rhetorically, what sort of advice would a political leader get from a military authority or adviser experienced in nuclear defence system in a nuclear crisis? The ultimate determination of nuclear deterrence happens in crisis situation. Nuclear deterrence is a complex political process involving nations ruled by democracy,⁸⁴² not a military confrontation between two States. History shows that during crisis situations, opponents often misunderstands each other's intention, despite clear messages been conveyed.⁸⁴³

Arguably, nuclear deterrence strategies are deeply rooted on socio-political and psychological dimensions in ways global security issues are perceived and solved. From a scientific perspective, it buttresses military Research and Development (R&D). The interface between a military establishment sustaining military R&D and political bureaucracy constitute the driving force behind the doctrine of nuclear deterrence, contemporary global consequences for peace and war.⁸⁴⁴

From the foregoing, is obvious that deterrence is predicated upon a nation being able to dissuade its adversary from possible nuclear attack by the corresponding threat of overwhelming retaliatory counter-attack. Reliance on nuclear deterrence to prevent strategic attack is not only dangerous in creating a gap in trust the middle of an escalating crisis but also undermines nuclear disarmament in its entirety. It encourages nations to reserve the right to use their nuclear weapons pre-emptively, either in the case of 'First Strike' or 'Second Strike' capability.

It could be argued, nuclear deterrence is not a recognised legal norm in international law; and nuclear weapons and nuclear deterrence are not effective instruments of State policy.⁸⁴⁵ Viewed from the perspective of International Humanitarian Law, both nuclear weapons and nuclear deterrence constitute instrumentalities of international lawlessness⁸⁴⁶ and ambitious global political hegemony of the Nuclear Weapon States (NWS). In the Advisory Opinion of the International Court of Justice (ICJ) on Nuclear

⁸⁴¹ Enrico Fels et al, *Power in the 21st Century: International Security and International Political Economy in a Changing World* (Springer, 2012) 86

⁸⁴² Therese Delpech, *Nuclear Deterrence in the 21st Century: Lesson from the Cold War for a New Era of strategic Piracy* (RAND Corporation, 2012) 12

⁸⁴³ Ibid

⁸⁴⁴ Yoshikazu Sakamoto, *Strategic Doctrine and Their Alternatives* (Gordon and Breach Science Publishers, 1987) 83

⁸⁴⁵ Francis Anthony Boyle, *The Criminality of Nuclear Deterrence* (Clarity Press, 2002) 73

⁸⁴⁶ Ibid 74

Weapon, the ICJ ruled that the threat stands or falls on the same legal grounds as actual use.⁸⁴⁷

Unambiguously, the World Court unanimously upheld that: “a threat of the use of force by means of nuclear weapons that is contrary to Article 2, paragraph 4, of the UN Charter and fails to meet all requirement of Article 51 is unlawful.”⁸⁴⁸ Similarly, the threat or use of nuclear weapons must be in conformity with the principles of applicable international humanitarian law with specific obligations under international and multilateral treaties which out rightly deal with the undertakings on nuclear weapons.⁸⁴⁹

Therefore, the combinations of military and political elements embedded in nuclear deterrence contravene the legal conditionality on nuclear disarmament. There is no circumstance, not even retaliation, upon which the use of nuclear weapons would be prudent, moral or legal under international law. The only prudently, morally, legally and politically acceptable policy on nuclear weapons would be a concerted effort to achieve their universal and total elimination.

Nuclear deterrence doctrine obviously promotes nuclear proliferation with the justification of national defense system against nuclear attacks. States with nuclear ambitions and capabilities such as India, Pakistan and North Korea are justifying their nuclear programmes on the basis of deterrence and self-defence.

4.5 The United Nations Disarmament Institutions and Resolutions on Nuclear Disarmament

The UNGA in 1952 by Resolution 502 (VI) established the United Nations Disarmament Commission (UNDC) subsumed under the United Nations Security Council UNSC with a general mandate on nuclear disarmament discourse and questions.⁸⁵⁰ The UNGA has held three Special Sessions devoted to Disarmament (SSOD): In 1978 SSOD –I,⁸⁵¹ in 1982 SSOD – II,⁸⁵² and in 1988 SSOD – III.⁸⁵³ In 2007, by Resolution A/16/60, the United Nations General Assembly (UNGA) established an Open-Ended Working Groups that discussed the possibility and the agenda of establishing a preparatory committee for an SSOD –IV.⁸⁵⁴ These sessions and deliberations of the UN are in conformity with Article 11 of the United Nations Charter that says:

⁸⁴⁷ International Court of Justice (ICJ) Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, July 8 1996, Rules on the Lawfulness or Unlawfulness of Nuclear Weapons as Such, paras 49 -73

⁸⁴⁸ Richard A. Falk, ‘Nuclear Weapons, International Law and the World Court: A Historic Encounter’ [1997] AJIL 91 (1), 64 -75

⁸⁴⁹ Nicholas Grief, ‘Legality of the Threat or Use of Nuclear Weapons’ [1997] ICLQ 46(3), 681 - 688

⁸⁵⁰ United Nations General Assembly (UNGA) Resolution Adopted on the Reports of the First Committee, A/RES/502 (IV), 1952

⁸⁵¹ First Special Session of the General Assembly devoted to Disarmament (1978) A/S-10/2 - Final Document of SSOD-I: Resolution and Decisions of the Tenth Special Session of the GA

⁸⁵² Second Special Session of the General Assembly Devoted to Disarmament (1982) A/S-12/32 - Concluding Document

⁸⁵³ Third Special Session of the General Assembly Devoted to Disarmament (1988) A/S-15/50 - Concluding Document

⁸⁵⁴ United Nations General Assembly (UNGA) Resolution Adopted on the Report of the First Committee Convening of the Fourth Special Session Devoted to Disarmament, A/61/394/61/60, 2007

*“... the General Assembly may consider the general principles of cooperation in the maintenance of international peace and security including the principles governing disarmament and regulations of armament.”*⁸⁵⁵

For the purposes of actualising the principles governing disarmament, the UNDC, comprised of all the Member States of the United Nations make recommendations in all aspect and facets of disarmament. The UNDC also, follows up on the various decisions and recommendations on the Special Session of the UNGA.

Since its inception, the UNDC formulates consensus principles and guidelines on nuclear disarmament and is substantively serviced by the United Nations Office for Disarmament Affairs (UNODA) under the auspices of the UNGA in collaborations with the United Nations Institute for Disarmament Affairs (UNIDIR).⁸⁵⁶ Following the recommendation of its First Committee on Disarmament and International Security, The UNGA had adopted 57 Resolutions and 6 Decisions on nuclear weapons and disarmament.⁸⁵⁷ Note worthy amongst these is the very first Resolution of the UNGA unanimously approved in January 1946, which stipulated “the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.”⁸⁵⁸

Under the provisions of the UN Charter, the UNSC has the primary responsibility to ensure and maintain international peace.⁸⁵⁹ All UN member States are under negotiated obligation to comply with all the decisions of the Security Council.⁸⁶⁰ Essentially, the UNSC takes the leads in determining the existence of a threat to peace or act of aggression in any part of the world.⁸⁶¹ Fundamentally, it is the responsibility of the Security Council to call upon all parties to conflicts to settle by peaceful means, by initiating and recommending procedures or terms of settlement.⁸⁶²

In isolated cases, the Security Council can impose sanctions or even authorise the use of force as a last resort to maintain or restore international peace. As a consequence of the enormous responsibilities reposed on the UNSC in maintaining international peace, the Council in 2004 unanimously adopted Resolution 1540 in conformity with Chapter VII of the United Nations Charter, obliging States to refrain from supporting non-States actors from developing, acquiring, manufacturing, possessing, transporting, transferring or using nuclear, biological, or chemical weapons and their delivery systems.⁸⁶³

⁸⁵⁵ Charter of the United Nations, 1945, art 11

⁸⁵⁶ United Nations Office for Disarmament Affairs (UNODA) – www.un.org/disarmament/Homepage accessed, 12 August 2015

⁸⁵⁷ United Nations, *General Assembly Adopts 63 Drafts on First Committee’s Recommendation with Nuclear Disarmament at Core of Several Recorded Votes* (Meeting Coverage and Press Releases, 2 December 2014) www.un.org/press/en/2014/ga11593.doc.htm accessed 23 June 2016

⁸⁵⁸ United Nations General Assembly (UNGA) Resolution 1 (1), January 24 1946

⁸⁵⁹ Charter of the United Nations, art 24 (1), 1945

⁸⁶⁰ Ibid, art 25

⁸⁶¹ Charter of the United Nations, art 33 (1), (2) and art 34, 1945

⁸⁶² Ibid

⁸⁶³ United Nations Security Council (UNSC) Resolution 1540, S/RES 1540, 28 April, 2004

On 24 September 2009, the UNSC affirmed its commitment by a U.S. Sponsored Resolution 1887, on the non-proliferation and the prevention of spread of Weapons of Mass Destruction (WMD) in the world, for the ultimate aim of attaining the goal of a world free of nuclear weapons.⁸⁶⁴ Consequent upon this Resolution, the UNSC formed an elaborate thematic framework for reducing global nuclear danger, in an unprecedented high-level Summit meeting presided over by President Barack Obama of the United States of America.⁸⁶⁵

In the same vein, the Security Council re-affirmed its commitment on 19 November 2008, in an organised open thematic debate on strengthening collective security through general regulation and reduction of nuclear armaments.⁸⁶⁶ Prequel to this thematic debate, the Security Council passed Resolution 1835, on 27 September 2008 which was sequel to an earlier negotiated solution to the Iranian nuclear programme and urged Iran to comply with its obligations and cooperation with the International Atomic Energy Agency (IAEA).⁸⁶⁷

With all these Resolutions, the UNSC desires a peaceful and safer world for all and to make provisions for the achievable possibility of a world without nuclear weapons in conformity with the set goals of the NPT. In the light of the principle of undiminished security for all, the UNSC encourage all nations in the world to adhere to their obligations in way that promote international security and stability. The United Nations has demonstrated its commitments to nuclear disarmament by encouraging all States to ensure their commitments to a peaceful and safer world. As a result of the United Nations commitments, so far, no non-State actors have acquired nuclear weapons. This underscores the truism: prevention is better than cure. Thus, the United Nations approach have prevented non-States actors for acquiring nuclear weapons.

4.6 Nuclear Disarmament: Challenges and Hindrances

In the face of the need for any government to pursue its supreme security interest within the ambit of international law⁸⁶⁸ and the conspicuous threats that presently exist as a consequence of an active international terrorist coordinated clandestine network⁸⁶⁹, the path toward a world without nuclear weapons has been unequivocally well marked. This path has been further developed and agreed upon in the multilateral nuclear weapons treaties and review processes linked to the NPT.

However, the prevailing actions in actualising disarmament are obviously unprecedentedly slow.⁸⁷⁰ The NWS and their allies as well as other nations with nuclear ambition and capabilities are consciously shifting the focus from disarmament

⁸⁶⁴ Ibid, (UNSC) Resolution 1887, S/RES 1887, 24 September 2009

⁸⁶⁵ United Nations Office for Disarmament Affairs (UNODA) www.un.org/disarmament/HomePage/SC.shtml

⁸⁶⁶ Ibid

⁸⁶⁷ United Nations Security Council (UNSC) Resolution 1835, S/RES 1835, (September 27, 2008)

⁸⁶⁸ Evan J. Criddle and Evan Fox-Decent, *Fiduciaries of Humanity: How International Law Constitute Authority* (Oxford University Press, 2016) 169

⁸⁶⁹ Gabriele G.S. Suder, *Corporate Strategies Under International Terrorism and Adversity* (Edward Elgar Publishing Limited,) 10

⁸⁷⁰ United Nations, *The United Nations Disarmament Yearbook 2008 Volume 33 (Part I): Disarmament Resolutions and Decisions of the Sixty-third Session of the United Nations General Assembly* (United Nations Publications, 2009) 10

to non-proliferation.⁸⁷¹ The 1996 Advisory Opinion of ICJ holds that the threat and use of nuclear weapons was generally illegal but does not clarify whether the illegality is applicable “in extreme circumstances of self-defence in which the very survival of a State would be at stake”.⁸⁷²

The first and the major identifiable challenge hindering nuclear disarmament is embedded in the NPT. The codification of Article VI of the NPT specifies that each parties including the *de jure* NWS:

*“Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of nuclear arms race at an early date to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control”.*⁸⁷³

The disarmament requirement of this provision has not worked and the 183 party-signatories are in formal non-compliance with this obligation by not pursuing the required negotiations on a treaty on general and complete disarmament. Arguably, in as much as it promotes non-proliferation, the NPT is the mainstay global legal instrument on nuclear weapons; therefore, unanimous violation of its essential provisions by all its signatories is a legal disservice to the entire disarmament negotiations.

Disarmament requires nuclear non-proliferation and non-proliferation is a precondition for nuclear disarmament in the sense that it renders the existence of nuclear weapons unnecessary. In practical procedure terms, the development of non-proliferation regime is durably affecting disarmament as disarmament is perceived as pervasive with deep-seated suspicion that it is not immediately realisable in contradistinction to non-proliferation as ultimately reliable. All the Nuclear Weapon States (NWS) to a very large extend have contingency votes of varying vast sums of money to modernise, upgrade and expand the size and lethality of their nuclear armaments and their vehicular delivery systems.⁸⁷⁴

Presently, progress on nuclear disarmament is at a standstill and at the risk of being overkaken by some States such as North Korea expressed ambition for acquisition of nuclear weapons. The delegation on the Conference on Disarmament (CD) and the Open-Ended Working Group (OEWG) on disarmament, acknowledged there are no existing legally binding restrictions on the nuclear developments of the four *de facto* non NPT nations (India, Israel, Pakistan and North Korea)⁸⁷⁵ with nuclear capabilities, actually possess nuclear weapons.

⁸⁷¹ Claudia Kissling, *Civil Society and Nuclear Non-Proliferation: How Do States Respond?* (Routledge, 2016) 92

⁸⁷² International Court of Justice (ICJ) Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, July 8 1996, Replies in the Following Manner to the Question Put by the General Assembly, 2(e)

⁸⁷³ Treaty on the Non-Proliferation of Nuclear Weapons (NPT), 12 June 1968, art VI

⁸⁷⁴ Richard Falk and David Krieger, *At the Nuclear Precipice: Catastrophe or Transformation* (Palgrave Macmillan, 2008) 31

⁸⁷⁵ Daryl G. Kimball, ‘Political and Security Challenges on Disarmament –and Opportunity to Achieve Progress’ (Arms Control Association/Mission of the Government of Canada in Geneva, 18 April 2016)

www.armscontrol.org/event/remarks/2016-04-18/Statement-by-Daryl-G-Kimball-Political-and-Security-Challenges accessed 25 June 2016

Also, from the information publicly available, there are no on-going bilateral or multilateral negotiations curtailing or regulating the reduction of the stockpiles of the five *de jure* Nuclear Weapon States NWS. The OEWG initiative “to fill the legal gap for the prohibition and elimination of nuclear weapons” has not produced a unified, realistic diplomatic and political proposal for halting nuclear competition or starting multilateral disarmament discourse.⁸⁷⁶

Ostensibly, an important treaty like the Comprehensive Test Ban Treaty (CTBT) as at the time of writing up this thesis has not yet entered into force,⁸⁷⁷ apparently as a result of political division and inaction by the Nuclear Weapon States (NWS). The current NATO (North Atlantic Treaty Organisation) strategic Concept for a new approach to nuclear weapons and its deterrence doctrine, portray nuclear weapons as being “essential to preserve peace”,⁸⁷⁸ This is synonymous to the logic of nuclear deterrence theory uphold by the NWS. However, it could be argued that this NATO’s position presents an unacceptable risk to humanity. The principle of nuclear weapons elimination, not their retention that is essential to security, but in reality it is vice versa.

The United States official policies to research a nuclear earth-penetrating weapon for use as a bunker buster and to reduce the frequency of repeating underground testing,⁸⁷⁹ to develop smaller and more usable nuclear weapons⁸⁸⁰ and its doctrine of pre-emptive war⁸⁸¹ have imaginably raised the possibility of future nuclear wars. These U.S. policies and State practice on nuclear posture have been deemed provocative to countries that the American government classified as the “Axis of Evil”⁸⁸² (e.g. North Korea). This phrase designates countries that constitute potential threats to the United States of America. Consequently, most of these countries seem to have developed unbridled inclination for acquisition of nuclear weapons as deterrent for retaliatory strike capabilities in the face of what they perceived U.S. intimidation and threats.

The insistence of the United States retaining and maintaining nuclear weapons option spur the whole world, especial nations with nuclear ambition and capabilities in reinforcing their reluctance to push for necessary steps towards non-proliferation and nuclear disarmament. The United States as the militarily and economically the most powerful country in the world as well as the first nation that manufactured nuclear

⁸⁷⁶ Daryl G. Kimball, ‘Political and Security Challenges on Disarmament –and Opportunity to Achieve Progress’ (Arms Control Association/Mission of the Government of Canada in Geneva, 18 April 2016) www.armscontrol.org/event/remarks/2016-04-18/Statement-by-Daryl-G-Kimball-Political-and-Security-Challenges accessed 25 June 2016

⁸⁷⁷ Joseph F. Pilat and Nathan E. Busch, *Routledge Handbook of Nuclear Proliferation and Policy* (Routledge Taylor & Francis Group, 2015) 180

⁸⁷⁸ Ernie Regerhr, ‘Rethinking NATO’s Strategic Concept: Building on the Emerging Nuclear Abolition Imperative’ (2009) 30 (1) *The Ploughshares Monitor* <http://ploughshares.ca/pl-publications/rethinking-nato-strategic-concept-building-on-the-emerging-nuclear-abolition> accessed 25 June 2016

⁸⁷⁹ Howard G. Wilshire et al, *The American West at Risk: Science, Myths and Politics of Land Abuse and Recovery* (Oxford University Press, 2008) 405

⁸⁸⁰ Eugene R. Wititkopf et al, *American Foreign Policy: Pattern and Process* (Thomson Wardworth, 7th edn, 2008) 95

⁸⁸¹ Matthew J. Flynn, *First Strike: Pre-emptive War in Modern History* (Routledge Taylor & Francis Group, 2008) 235

⁸⁸² Urszula Okulska and Piotr Cap, *Perspective in Politics and Discourse* (John Benjamins Publishing Company, 2010) 64

weapons and the only country that have used them, has the special task to lead in achieving its obligations for nuclear disarmament under international law.⁸⁸³

4.7 The 1996 International Court of Justice (ICJ) Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons

On 8 July 1996, the ICJ delivered two separate advisory opinions on two different requests received from the World Health Organization (WHO) and the United Nations General Assembly (UNGA) respectively on the question of the legality of nuclear weapons under international law.⁸⁸⁴ The ICJ also known as the World Court is the principal judicial organ of the United Nations⁸⁸⁵ and its Statute constitutes an integral part of the United Nations Charter.⁸⁸⁶ The ICJ is consists of 15 judges representing the various regions and principal legal system of the world.⁸⁸⁷ In addition to its fundamental function of delivery judgments in contentious cases submitted to it by States, the ICJ is obliged under Article 96(2) of the United Nations Charter to offer advisory opinion at the request of any UN organ or specialized agency.⁸⁸⁸

On December 20 1994, the UNGA requested the World Court to give an advisory opinion on the legality of the threat or use of nuclear weapons in any circumstance permitted under international law.⁸⁸⁹ First of all, the ICJ acknowledged the UNGA competence to submit such an important request, arising from the UN Charter and the UN's longstanding position on nuclear disarmament.

The ICJ affirmed that the request was related to a legal question within the confines of Article 96(1)⁸⁹⁰ of its Statute and the UN Charter, and that there were no persuasive reasons to refuse the request, regardless of the fact that the question did not related to any specific dispute and was couched in abstract terms.⁸⁹¹

In the determination of the legality or otherwise of the threat or actual use of nuclear weapons, the ICJ decided that the most directly relevant applicable law governing the United Nations General Assembly (UNGA) are:

1. The provision of the United Nations Charter relating to the threat or use of force.
2. The Principles and rules of International Humanitarian Law (IHL) that form part of the law applicable in armed conflict and the law of neutrality, and

⁸⁸³ David Krieger, *The Challenge of Abolishing Nuclear Weapons* (Transaction Publisher, 2011) 13

⁸⁸⁴ Juan Jose Quintana, *Litigation at the International Court of Justice: Practice and Procedure* (Brill Hijhoff, 2015) 1237

⁸⁸⁵ Christian J. Tams and James Sloan, *The Development of International Law by the International Court of Justice* (Oxford University Press, 2013) 198

⁸⁸⁶ Mahasen M. Aljaghoub, *The Advisory Function of International Court of Justice 1946 – 2005* (Springer, 2007) 27

⁸⁸⁷ Andreas Zimmermann et al, *The Status of International Court of Justice: A commentary* (Oxford University Press, 2nd edn 2012) 467

⁸⁸⁸ Charter of the United Nations and the Status of the International Court of Justice 1945, ch XIV, art 96(2)

⁸⁸⁹ Pieter H.F. Bekker, *Commentaries on World Court Decisions: (1987 – 1996)* (Martinus Nijhoff Publishers 1998) 233

⁸⁹⁰ Charter of the United Nations and the Status of the International Court of Justice 1945, ch XIV, art 96(2)

⁸⁹¹ Pieter H.F. Bekker, 'Advisory Opinions of the World Court on the Legality of Nuclear Weapons' (1996) ASIL 1(5) <http://www.asil.org/insights/volume/1/issues/5/advisory-opinions-world-court-legality-nuclear-weapons> accessed 27 June 2016

3. Any relevant specific treaties on nuclear weapons.⁸⁹²

In applying any of these laws, the ICJ opined that it is crucial to take into consideration certain characteristic features of nuclear weapons, particularly their annihilating capacity that can cause unthinkable human suffering for future generations.⁸⁹³

In view of the United Nations Charter relating to the threat or use of force, the ICJ considered Article 2(4) – generally prohibiting the threat or use of force;⁸⁹⁴

Article 51 – recognising every State's inherent right of individual or collective self-defence in the event of an armed attack;⁸⁹⁵

and Article 42 – authorising the United Nations Security Council (UNSC) to take military enforcement measure.⁸⁹⁶

These provisions do not prohibit or refer to any specific weapons and as a result, the World Court held that the provisions apply to any use of force, irrespective of the kind of weapon employed, and “a weapon that is already unlawful *per se* whether by treaty or custom cannot become lawful by reason of its being used for a legitimate purpose under the UN Charter”.⁸⁹⁷

Furthermore, ICJ held that whatever the means of force used in self-defence, the dual customary conditions of necessity and proportionality and the applicable law in armed conflict apply to Article 51, including an additional consideration as to the very character of nuclear weapons and the devastating risks associated with their use.⁸⁹⁸

In spite of the undisputed applicability of the principles and rules of IHL and the law of neutrality, the ICJ was aware that the conclusions to be deduced from this applicability would be controversial. Consequently, the Court admitted in its ruling that the unique characteristics of nuclear weapons and their use are in fact scarcely reconcilable in view of the legal dictates of the applicable law of armed conflicts.⁸⁹⁹

⁸⁹² Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 243, para 34; Cf Dawn L. Rothe and Christopher W. Mullins, *State Crime: Current Perspectives* (Rutgers University Press, 2011) 71

⁸⁹³ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 243, para 35; Cf Pieter H.F. Bekker, 'Advisory Opinions of the World Court on the Legality of Nuclear Weapons' (1996) ASIL 1(5) <http://www.asil.org/insights/volume/1/issues/5/advisory-opinions-world-court-legality-nuclear-weapons> accessed 27 June 2016

⁸⁹⁴ Charter of the United Nations and the Status of the International Court of Justice 1945, ch I, art 2(4)

⁸⁹⁵ Ibid ch VII, art 51

⁸⁹⁶ Ibid ch VII, art 42

⁸⁹⁷ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 244, para 39; Cf Ian Henderson, *The Contemporary Law of Targeting: Military Objectives, Proportionality and Precaution in Attacks Under Additional Protocol I* (Martinus Nijhoff Publishers, 2009) 149

⁸⁹⁸ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 245, para 44; Cf Marc Weller et al, *The Oxford Handbook of the Use of Force in International Law* (Oxford University Press, 2015) 568

⁸⁹⁹ Ibid, p 260, para 88; Cf Pieter H.F. Bekker, 'Advisory Opinions of the World Court on the Legality of Nuclear Weapons' (1996) ASIL 1(5) <http://www.asil.org/insights/volume/1/issues/5/advisory-opinions-world-court-legality-nuclear-weapons> accessed 27 June 2016

The ICJ examined and explained Article VI of the NPT that obliges negotiation in a good faith towards complete disarmament.⁹⁰⁰ All the judges unanimously held that the provision enshrined in Article VI implies an obligation to achieve precise result-nuclear disarmament in all its facets and aspects by adopting a particular course of conduct, that is, to pursue and conclude negotiations in conformity with the basic principle of good faith with the official involvement of all the 183 member States signatories to the Treaty which constitute the vast majority of the international community.⁹⁰¹

The essence of this distinctive ICJ Advisory Opinion on the question of the legality of the threat or use of nuclear weapons is determinative to this research. It underlies the global judicial propriety that is not only essential but provide a yardstick of measurement that supports analytic exposition of international law and treaties relating to nuclear weapons and nuclear disarmament.

Clearly speaking, the ICJ considered the legality of nuclear weapons in the context of environmental⁹⁰² and principles of humanitarian law.⁹⁰³ The ICJ opined that the threat or use of nuclear weapons would be contrary to all international law regulating the conduct of warfare. The World court did not enact any new law concerning nuclear weapons but made references to certain existing principles of IHL regulating the methods and conduct of war such as principles of necessity and proportionality.⁹⁰⁴

The ICJ acknowledged that the characteristic features of nuclear weapons are immensely destructive and cannot be contained in either space or time thereby making their use inherently incompatible with the rules of armed conflict.⁹⁰⁵ In negating the argument that nuclear weapons use are not prohibited under any specific treaty, the ICJ made reference to Marten clause (named after the Russian foreign minister) at the 1889 first Hague Peace Confernce. The Marten Clause provides that cases not covered by international agreement, both combatants and civilians are protected on the basis of the principles of international law derivable from customary principles of humanity and public conscience.⁹⁰⁶ The Advisory Opinion is encapsulated on Article VI of the NPT that stipulate the disarmament obligation through negotiations in good faith the process and legal instrument for complete nuclear disarmament.⁹⁰⁷

In line with the violation of the principles of IHL and the customary principle of humanity, any use of nuclear weapons in warfare would amount to war crime under the provisions of Article 8 of the 2002 Rome Statute of the International Criminal Court. This Article covers a wide range of war crimes ranging from attacks intentionally

⁹⁰⁰Ibid, p 264, para 102; Cf Morten Bremer Maerli and Sverre Lodgaard, *Nuclear Proliferation and International Security* (Routledge Taylor & Francis Group 2007)56

⁹⁰¹ Ibid, p 265, para 103; Cf Ibid

⁹⁰² Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 241, paras 29, 31, 32

⁹⁰³ Ibid, p 245, paras 42

⁹⁰⁴ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 243, paras 41, 42, 44

⁹⁰⁵ Ibid, p 243, para 35

⁹⁰⁶ Ibid, p 257, para 78

⁹⁰⁷ Ibid, p 265, para 103

directed against the civilian population in Article 8(2)(i)⁹⁰⁸ and attacks on prohibited weapons used on undefended dwelling places which are not military objectives in Article 8(2)(b)(v).⁹⁰⁹ Most of the provisions of Article 8 are applicable to international armed conflict. Consequently, the use of nuclear weapons as a result of their inherent and indiscriminate destructive nature constitute world crime and gross violation of armed conflict law. Therefore, nuclear weapons as weapons which usage are prohibitive on warfare should be eliminated through disarmament.

4.8 The 1969 Vienna Convention on the Law of Treaties (VCLT): A Framework for Nuclear Weapons Treaties

The 1969 Vienna Convention on the Law of Treaties (VCLT) is the main international legal instrument that regulates all other treaties contracted between States.⁹¹⁰ The VCLT defines a treaty and relates it to how other treaties are contracted, operated, amended, interpreted, and terminated. It does not aim to create specific substantive rights and obligations on the engagements of parties.⁹¹¹ However, the VCLT governs all treaties regardless of their subject matters or objectives.⁹¹²

The VCLT was adopted on 22 May 1969 and opened for signature on 23 May 1969 by the United Nations Conference on the Law of Treaties.⁹¹³ The Conference was convened pursuant to the United Nations General Assembly (UNGA) Resolutions 2166 (XXI)⁹¹⁴ of 5 December 1966; and 2287 (XXII)⁹¹⁵ of December 6 1967. The Conference held two sessions, both at the Neue Hofburg in Vienna. The first session was held from 26 March to 24 May 1968 and the second session was held from 9 April to 22 May 1969. In addition to the Convention, the UN Conference adopted the Final Act and certain declarations and resolutions, which are annexed to that Act.

The 1969 Convention on the Law of Treaties (VCLT) entered into force on 27 January 1980 and has been ratified by the total of 114 States till date. Some States that have not yet ratified the VCLT acknowledge it as a restatement of Customary Public International Law that has binding effect upon them.⁹¹⁶ States that have not yet ratified the VCLT include the United States of America, Islamic Republic of Iran, Pakistan, Cambodia, Co'te d'Ivoire, El Salvador, Ethiopia, and Kenya. Others are Ghana, Luxembourg, Madagascar, Nepal Pakistan, Trinida, and Tobago.⁹¹⁷

⁹⁰⁸ Rome Status of the International Criminal Court, 2002, art 8(2)(i)

⁹⁰⁹ Ibid, art (8)(2)(b)(v)

⁹¹⁰ Roger White, 'Still More on Treaty and Interpretation' [1991] BRT 1&2, 35 - 37

⁹¹¹ Christian Djéffal, 'The Vienna Convention on the Law of Treaties: A Commentary (Edited by Olivier Corten and Pierre Klein, 2011) [2013] EJIL 24(4), 1223 - 1238

⁹¹² Ibid

⁹¹³ Malcolm D Evans, *International Law* (Oxford University Press, 1st edn, 2003) 175

⁹¹⁴ United Nations Conference on the Law of Treaties, Resolution 2166 (XXI) of the General Assembly Convening the Conference, Vienna, Austria (First Session 26 March – 24 May 1968)

⁹¹⁵ The United Nations Conference on the Law of Treaties, Resolution 2287 (XXII), A/CONF 39/26 Vienna, Austria (Final Act of the United Nation Conference on the Law of Treaties, 9 April – 22 May 1969)

⁹¹⁶ Malcolm D Evans, *International Law* (Oxford University Press, 1st edn, 2003) 175

⁹¹⁷ United Nations Treaty Collection <https://treaties.un.org/pages/viewDetails> Vienna Convention on the Law of Treaties accessed 10 December 2017

The VCLT Article 7(1) obliges a State representative to exercise full powers in adopting the text of a treaty as well as to make an exception which recognises that States more often than not, agree to dispense with full power.⁹¹⁸ This provision is analogously applicable to all the nuclear weapon treaties, especially the Nuclear Weapon Free Zones (NWFZs) treaties; whereby the rules are mainly outstanding, leaving the operational practice of treaty in the hands of States.

The VCLT is deemed as a framework for the newly emerged Treaty on the Prohibition of nuclear weapons (TPNW). The TPNW was adopted by the UNGA Resolution 71/258 on 7 July 2017,⁹¹⁹ as a legally binding instrument to prohibit nuclear weapons. The TPNW was opened for signature on 20 September 2017 with an indefinite durational life span. As at the time of writing this thesis (December, 2017) the Treaty has 53 signatories and 3 ratifications. The TPNW requires at least 50 ratifications and enter into force 90 days after such ratifications.⁹²⁰

The TPNW has its roots on the Humanitarian Initiative, a push for nuclear disarmament on the basis of severe humanitarian consequences that would arise from any nuclear war. A total of 160 States supported the Humanitarian Initiative at the 2015 NPT Review Conference.⁹²¹ When come into force, the TPNW would invariably supersede the NPT.

4.9 The Adoption of the Treaty on the Prohibition of Nuclear Weapons (TPNW) by the United Nations General Assembly (UNGA): A Timely Emergence and Milestone Development to this Present Research

Background to the Emergence of the Treaty

The Treaty on the Prohibition of Nuclear Weapons (TPNW) as stated above was adopted on 7 July 2017 by the United Nations General Assembly (UNGA), in a United Nations Treaty conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards total disarmament.⁹²² The adopting of the TPNW was a follow up to the UNGA Resolution A/RES/71/258 - “taking forward multilateral nuclear disarmament negotiations” on 23 December 2016,⁹²³ and the recommendations of the UN Open-Ended Working Group (OEWG) on “talking forward multilateral disarmament negotiations” pursuant to UNGA Resolution on 7 December 2015. The sole mandate of the OEWG was the review of concrete legal measures, legal provisions and norms

⁹¹⁸ Vienna Convention on the Law of Treaties, May 23 1969, art 7(1)

⁹¹⁹ United Nations General Assembly (UNGA) Resolution 71/258, adopted on 7 July 2017

⁹²⁰ Treaty on the the Prohibition of Nuclear Weapons (TPNW) www.nti.org/learn/treaties-and-regimes/treaty-on-the-prohibition-of-nuclear-weapons accessed 6 December, 2017

⁹²¹ Ibid

⁹²² United Nations, United Nations Conference to Negotiate a Legally Binding Instrument to the Prohibit Nuclear Weapons, Leading Towards their Total Elimination – 16 February, 27 - 31 March, 15 June – 7 July 2017 < <https://www.un.org/disarmament/ptnw> > accessed 12 December 2017

⁹²³ United Nations General Assembly (UNGA) Resolution A/RES/71/258 “Taking Forward Multilateral Nuclear Disarmament Negotiations” Adopted on 23 December 2016

that would need to be concluded to attain and maintain a world without nuclear weapons.

The legal roots of the adoption of the TPNW are traceable to the provision of Article VI of the Non-Proliferation Treaty, which says:

*“Each of the State party 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 effective international control”.*⁹²⁴

The continuous consensus on the legal obligation – to pursue nuclear weapons disarmament has not been reflected in action, inspite of efforts of many States over many decades in the United Nations General Assembly and in the Conference on Disarmament. This apparently led to a renewed momentum in the United Nations General Assembly, in which turn led to the Assembly mandate for the negotiations and adoption of the TPNW.

The total of 124 States participated in the conference, 122 States voted for the adoption of the treaty, one (the Netherlands) voted against the adoption, and one (Singapore) abstained.⁹²⁵ The TPNW which is the first multilateral legal instrument prohibiting nuclear weapons was opened for signature on 20 September 2017 in the United Headquarters in New York⁹²⁶ in conformity with Article 13 which says: *“This Treaty Shall be opened for signature to all States at the United Nations Headquarters in New York as from 20 September 2017.”*⁹²⁷ The TPNW is open for any UN member State irrespective of their participation in its negotiation processes.

In line with its Article 15(1), the TPNW “... shall come into force 90 days after the fiftieth instrument of ratification, acceptance, approval or accession has been deposited.”⁹²⁸ Up to the time of writing this thesis (December 2017) the TPNW has 53 signatories and only three State parties (Guyana, The Holy See and Thailand) have ratified it on the same day it was opened for signature.⁹²⁹

The Non-participation of the Nine States Known to Possess Nuclear weapons on the Treaty Negotiation Process

All the five NWS (United States, United Kingdom, China, France and Russia) and the four States (Israel, India, Pakistan and North Korea) known to possess nuclear weapons were consistently absent through the negotiations of the TPNW, including

⁹²⁴ Treaty on the Non-Proliferation of Nuclear Weapons (NPT), 1 July 1968, art vi

⁹²⁵ Arms Control Law (Analysis and Discussions of Legal Issues Relevant to Arms Control), The Treaty on the Prohibition of Nuclear Weapons < <https://armscontrollaw.com/2017/07/26/the-treaty-on-the-prohibition-of-nuclear-weapons> > accessed 12 December 2017

⁹²⁶ United Nations Office for Disarmament Affairs (UNODA) Lists of the Countries which Signed Treaty on the Prohibition of Nuclear Weapons on the Opening Day, 20 September 2017 < <https://www.un.org/disarmament> > accessed 14 December 2017

⁹²⁷ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 13

⁹²⁸ Ibid, art 15(1)

⁹²⁹ United Nations Office for Disarmament Affairs (UNODA) Lists of the Countries which Signed Treaty on the Prohibition of Nuclear Weapons on the Opening Day, 20 September 2017 < <https://www.un.org/disarmament> > accessed 14 December 2017

the UNGA debates, the formal treaty negotiations process and the voting on the final text. Justifying the boycott of the United States from the entire treaty negotiating process, the United States Ambassador to the United Nations Niki Haley said *“in this day and time we can’t honestly say that we can protect our people by allowing the bad actors to have nuclear weapons and those of us that are good, trying to keep peace and safety, not to have them”*.⁹³⁰

In the same vein, the United Kingdom Ambassador to the United Nations, Matthew Rycroft equally justified the British non-participation in the treaty process by saying *“The UK is not attending the negotiations on a treaty to prohibit nuclear weapons because we do not believe that those negotiations will lead to effective progress on global nuclear disarmament.”*⁹³¹ Furthermore, the United Kingdom believes that the best way to achieve the goal of global nuclear disarmament is through gradual multilateral disarmament, negotiated using a step-by-step approach and within existing international legal frameworks, especially the NPT.⁹³²

Regardless of the non-participation of the above named States known to possess nuclear weapons on TPNW process, the States that negotiated the TPNW have clearly expressed the view that the possession and potential use of nuclear weapons is an existential threat to humanity which cannot be over looked as a result of the fact that few States that possess nuclear weapons are not willingly to take proactive steps to get rid of their nuclear armaments. However, without the participation of the States possessing nuclear weapons especially the five NWS, the TPNW may stand as a mere idealistic statement similar to the Comprehensive Nuclear Test Ban Treaty which has not entered into force for more than two decades after it was opened for signature. Also, the disapproval of the five NWS on the TPNW who are the five permanent members of UNSC may adversely affect the TPNW coming into force bearing in mind their veto power on global security issues and their enormous influence over many other States who are their allies on possible non-ratification of the TPNW.

The Legal Arguments and the Potential Impact of the Non-participation of the Nine States Known to Possess Nuclear Weapons on the TPNW

The five officially recognised Nuclear Weapon States (NWS) and the four other nuclear possessor States have expressed two main legal arguments against the adoption of the TPNW. The first argument is, the TPNW stand the risk of undermining the NPT, which they consider as the cornerstone of the nuclear weapons legal framework.⁹³³ Significantly, the TPNW reaffirmed the NPT in its preamble as the cornerstone instrument on nuclear disarmament.⁹³⁴ Their second argument is the TPNW cannot have any normative impact in any given time because it was negotiated without the

⁹³⁰ Arms Control Law (Analysis and Discussions of Legal Issues Relevant to Arms Control), The Treaty on the Prohibition of Nuclear Weapons < <https://armscontrollaw.com/2017/07/26/the-treaty-on-the-prohibition-of-nuclear-weapons> > accessed 12 December 2017

⁹³¹ Ibid

⁹³² House of Common Library, A Treaty on the Prohibition of Nuclear Weapons < www.parliament.uk/ResearchBriefing/Summary/CBP-7986 > accessed 14 December 2017

⁹³³ Treasa Dunworth, ‘The Treaty on the Prohibition of Nuclear Weapons’ American Society of International Law www.asil.org/insights/volume/21/issue/12/treaty-prohibition-nuclear-weapons accessed 02 August 2018

⁹³⁴ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, preamble

input from them, the States evidently known to possess nuclear weapons and it would not be ratified by any of them.⁹³⁵

However, basic international legal analysis does not support either of these arguments. The TPNW would not undermine the NPT, rather it would complement it. According to the 1969 Vienna Convention on the Law of Treaties, when two treaties deal with overlapping subject matter, and when the parties to the later treaty do not include all the parties to the earlier treaty, the later treaty does not affect or disrupt the existing treaty relationship for States not joining the new treaty.⁹³⁶ In line with these provisions, the TPNW cannot be viewed to undermine the obligations and provisions of the NPT.

To ensure that the TPNW does not in any way undermine the NPT or any other legal instrument on nuclear disarmament, Article 18 of the TPNW provides that its implementation “shall not prejudice obligations undertaken by States parties in regard to existing international agreements, to which they are party, where those obligations are consistent with the Treaty”.⁹³⁷

Concerning the argument on normative impact of the TPNW without the nuclear weapons possessing States, practice has shown that normative development is possible even without the involvement of specially concerned States. Treaties do and can shift international expectations and result in change of policy over time irrespective of the States that have remained outside a particular legal instrument. In the absence of the involvement of most powerful States, treaties can make remarkable impact over time such as the TPNW that is widely supported but not universally accepted.⁹³⁸

United States Position on the TPNW

According to the official statement of U.S. Department of States, Diplomacy in Action, the United States did not participate in the negotiations of the TPNW and will not support the Treaty.

*“Over many years and under various Administrations, we have made clear our willingness to work together with all States to improve international security and reduce the risk of nuclear war. However, this proposed treaty – which ignores the current challenges that nuclear deterrence necessary – will not result in the elimination of a single nuclear weapons, nor will it enhance the security of any State. No State that possess nuclear weapons participated in these negotiations, and no U.S. ally that relies on extended nuclear deterrence supported the final text.”*⁹³⁹

In the view of Ambassador Robert Wood, the U.S. permanent representative to the Conference on Disarmament, the TPNW “is a bad idea, prohibiting nuclear weapons

⁹³⁵ Treasa Dunworth, ‘The Treaty on the Prohibition of Nuclear Weapons’ American Society of International Law www.asil.org/insights/volume/21/issue/12/treaty-prohibition-nuclear-weapons accessed 02 August 2018

⁹³⁶ Vienna Convention on the Law of Treaties, May 23 1969, arts 30 & 59

⁹³⁷ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017. art 18

⁹³⁸ Treasa Dunworth, ‘The Treaty on the Prohibition of Nuclear Weapons’ American Society of International Law www.asil.org/insights/volume/21/issue/12/treaty-prohibition-nuclear-weapons accessed 02 August 2018

⁹³⁹ U.S. Department of State, Diplomacy in Action Press Statement on ‘Conclusion of the UN Negotiation on a Treaty to Ban Nuclear Weapons’ www.states.gov/r/pa/ps/2017/07/272429 accessed 02 August 2018

would not make the world a safer place or reduce stockpiles by even one". Ambassador Wood warned that the treaty would exacerbate division that already exist in the non-proliferation and disarmament communities.⁹⁴⁰ In the same vein, Christ Ford, Special Assistant to President Trump and Senior Director for Weapons of Mass Destruction and Counter-proliferation on the U.S. National Security Council said, "The TPNW is ineffective at best and may in fact be deeply counterproductive"⁹⁴¹

Furthermore, the United States officially maintained that it would never become a party to the treaty banning nuclear weapons because:

*"Nuclear disarmament cannot take place in a vacuum. It require a transformation of the international security environment, consensus-based approaches that include States that possess nuclear weapons as well as those that do not, rigorous verification and swift and sure enforcement against potential violation. We call on all States to join us in intensifying our efforts to address the real security challenges the international community would need to overcome..."*⁹⁴²

The United States consider the TPNW a distraction from the real-world effort to make the world a safer place and at worst; it will deepen political division as well as undermine alliance relationship that would make the world more secure. The United States also believe the TPNW will make it harder for the international community to work together in devising and implementing effective measures that will let meet these challenges together.⁹⁴³

United Kingdom Position on the TPNW

Just like the United States, the United Kingdom did not participate in the TPNW negotiation processes. Following the conclusion of the negotiations and the adoption of the treaty by the United Nations, the United Kingdom officially made it clear that it would not sign, ratify or become a party to the TPNW.

*"As we have previously made it very clear, we do not believe that this treaty will bring us closer to a world without nuclear weapons. This reaty fails to address the key issues that must first be overcome to achieve lasting global nuclear disarmament. It will not improve the international security environment or increase trust and transparency. The unpredictable international security environment we face today demands the maintaince of our nuclear deterrent for the near future. And we cannot rule out further shifts in the international security context which would put us, or our NATO allies, under grave threat."*⁹⁴⁴

⁹⁴⁰ Lisa Schlein US: Nuclear ban Treaty Undermines International Security www.voanews.com/a/united-states-says-nuclear-ban-treaty-undermines-international-security/4030938.html accessed 02 August 2018

⁹⁴¹ Shatabhisha Shetty and Denitsa Raynova, 'Breakthrough or Breakpoint? Global Perspective on the Nuclear Ban Treaty: Global Security Special Report (European Leadership Network, December 2017)

⁹⁴² U.S. Department of State, Diplomacy in Action Press Statement on 'Conclusion of the UN Negotiation on a Treaty to Ban Nuclear Weapons www.states.gov/r/pa/ps/2017/07/272429 accessed 02 August 2018

⁹⁴³ U.S. Department of State, Diplomacy in Action Press Statement on 'Conclusion of the UN Negotiation on a Treaty to Ban Nuclear Weapons www.states.gov/r/pa/ps/2017/07/272429 accessed 02 August 2018

⁹⁴⁴ UK Statement on the Treaty Prohibiting Nuclear Weapons, Foreign & Commonwealth Office <https://www.gov.uk/government/organisation/foreign-commonwealth-office> accessed 02 August 2018

The United Kingdom strongly believe that the TPNW would undermine and weaken the NPT, which has played a significant role in curtailing the nuclear arms race. As a responsible Nuclear Weapon State, the UK reaffirmed its commitments to continue to work with international partners towards creating the condition for a world without nuclear weapons.⁹⁴⁵

The firm belief of the UK is that the best way to achieve a world without nuclear weapons is through gradual multilateral disarmament negotiated using a step-by-step approach, within existing international frameworks. The United Kingdom have expressed that it would not accept any argument that the TPNW can constitute to a development of customary international law binding on the United Kingdom.⁹⁴⁶

Russia Position on the TPNW

Russia has officially declared that the TPNW which was passed in the United Nations is contrary to Russia's national security interests. The Director of the Russian Foreign Ministry's Department for Non-Proliferation and Arms Control Mikhail Ulyanov expresses that:

*"it (TPNW) contradicts Russia's national interest and our vision of how to move toward nuclear disarmament. We have always confirmed that we share the goal of creating a nuclear-free world, joined a number of politically binding declarations on this matter, but we have repeatedly emphasised that this is a long term goal, the way to which should be phased, and that the network in this direction should be pursued in terms of strengthening strategic stability and taking into account the national security interests of all countries, including of course, Russia"*⁹⁴⁷.

The Russian government believe that it is irresponsible to call for complete destruction of global nuclear arsenals in the current political environment characterised by unpredictability, violence and conflict. Like the United States, Russia is of the view that reduction of nuclear weapons does not happen in a vacuum, but in a modern world that is very far from being perfect. A world that is becoming more turbulent, conflict-ridden and unpredictable.⁹⁴⁸

Similar to the United States, Russia, therefore, call on all States for a more sober and realistic approach to the task of nuclear disarmament. Russia believe that under current conditions, it is not serious, even irresponsible to raise the issue of total destruction of nuclear weapons. Nuclear weapons are objectively one of the guarantors of international security.⁹⁴⁹

⁹⁴⁵ Ibid

⁹⁴⁶ Ibid

⁹⁴⁷ 'Nuclear Weapons Ban Treaty Contradicts Russia's National Interests' Sputnik International Search <https://sputniknews.com/politics/201709121057334878-nuclear-weapons-ban-treaty-contradicts-interests> accessed 02 August 2018

⁹⁴⁸ Ibid

⁹⁴⁹ Ibid

China Position on the TPNW

Like the rest of the five Nuclear Weapon States, China boycotted the negotiations on the TPNW but it was the most responsive of the five Nuclear Weapon States. China was the only one of these five States that did not vote against the commencement of the TPNW in the United Nations General Assembly. As expressed by the Foreign Ministry Spokesperson of China, Hua Chunying: “final comprehensive ban on and total destruction of nuclear weapons was fundamentally in line with the purposes of the negotiation on nuclear weapons ban treaty”⁹⁵⁰

However, at a point in time, the TPNW appeared unacceptable to China as China possesses and stockpiles nuclear weapons and maintain the policy of nuclear retaliation after a nuclear strike by a State enemy. China made it clear that it cannot adhere to the core prohibition of the TPNW but it shares much of the spirit behind the treaty. Certain principle of the treaty align with both foreign and domestic Chinese policies. China believes that the TPNW would not undermine its existing nuclear policies as long as it does not sign it. China is disposed to actively engage with the TPNW as a non-State party and would continue to promote nuclear disarmament⁹⁵¹.

France Position on the TPNW

France like the other Nuclear Weapon States boycotted all the negotiation processes of the TPNW and as such does not recognise and accept the treaty. France considers the TPNW as a text unsuited to the international security context, characterised by growing tension and the proliferation of Weapons of Mass Destruction, as shown *inter alia* by North Korea nuclear threat.⁹⁵²

“France’s security and defence policy just like those of its allies and other close partners is based on nuclear deterrence. Deterrence aims to protect our country from any State-led aggression against its vital interests, of whatever origin and in whatever form.” The international situation permits no weakness. In this respect, a treaty banning nuclear weapons risks affecting the security of the Euro-Atlantic region and international stability”⁹⁵³.

France also believes that nuclear disarmament is not achieved by degree. It must be built. France remained determined to implement the concrete stages in nuclear disarmament in accordance to its commitments under the NPT. Furthermore, the government of France expresses thus:

“France has already taken concrete, substantial disarmament measures in particular by halving its nuclear arsenals, stopping nuclear tests, ratifying the Comprehensive

⁹⁵⁰ Tong Zhao and Raymond Wang, China and the Nuclear Weapons Prohibition Treaty (Carnegie – Tsinghua, Centre for Global Policy) <https://carnegiestinghua.org/2017/09/21/china-and-nuclear-weapons-prohibition-treaty-pub-73488> accessed 02 August 2018

⁹⁵¹ Ibid

⁹⁵² France Responds to UN Nuclear Weapons Ban Treaty, ‘Adoption of the Treaty Banning Nuclear Weapons – Statement by the Ministry for Europe and Foreign Affairs Spokesperson’ (France in the United Kingdom, Embassy of France in London) <https://ukambafrance.org/France-responds-to-Un-nuclear-weapons-ban-treaty> accessed 03 August 2018

⁹⁵³ Ibid

*Nuclear-Test-Ban Treaty and irreversibly closing its facilities which produce fissile material for nuclear weapons. We shall also continue our efforts to promote international security and stability, including when it comes to combating the proliferation of Weapons of Mass destruction”.*⁹⁵⁴

France is categorical in saying the TPNW “does not bind us and it does not create new obligation.” It is France’s belief that the decision of a large number of states – Nuclear Weapon States and other States possessing or not possessing nuclear weapons – not to participate in the negotiations, in Europe and Asia in particular, cogently illustrate this disparity.⁹⁵⁵

Legal Analysis and Conflict of NATO Nuclear Posture and the Interpretations of the TPNW Obligations

There are numerous legal issues associated with the TPNW. These issues include the disparity existing between the NATO nuclear weapons commitments derived from Article 5 of the 1949 Washington North Atlantic Treaty and the provisions and obligations of the TPNW. NATO defence policy has a longstanding commitment to nuclear weapons sharing arrangements. Currently, five NATO States have agreements with the United States on the basis that the United States nuclear armaments are stationed in their territories and to be used by the host States’ military in an event of any armed conflict. These States are the Netherlands, Belgium, Germany, Italy and Turkey. This explains the Netherlands uncharacteristic vote against the adoption of the TPNW. It is believed that 180 United States B-61 thermonuclear weapons are presently residual in these States; the largest of these nuclear armories are stationed at the Aviano Air base in Italy and Incirlik Air base in Turkey.⁹⁵⁶

Contrary to the NATO defence policy of nuclear sharing agreement, Article 1(g) of the TPNW provides that no States party shall “allow any stationing, installation or deployment of any nuclear weapons or other nuclear explosives devices in its territory or at any place under its jurisdiction or control.”⁹⁵⁷ This provision closes the loophole in Article II of the NPT upon which NATO predicated their nuclear arrangements. The TPNW does not have provisions for safeguards or verification and compliance obligations. The TPNW requires each State party to conclude or maintain its existing safeguards agreements with the IAEA in its Articles 3(2) and 4(3). This lack of safeguards obligation in the TPNW is contentious and fraught with implications of non-verification and substantial non-compliance.

NATO has a long-standing opposition to the TPNW. It opposes the TPNW on the ground that it undermines the long-term gradual disarmament process through the existing instrument of the Non-Proliferation Treaty (NPT) and abolishes the international security dynamics that support the reliance on nuclear deterrence

⁹⁵⁴ Ibid

⁹⁵⁵ Ibid

⁹⁵⁶ Arms Control Law (Analysis and Discussions of Legal Issues Relevant to Arms Control), The Treaty on the Prohibition of Nuclear Weapons < <https://armscontrollaw.com/2017/07/26/the-treaty-on-the-prohibition-of-nuclear-weapons> > accessed 12 December 2017

⁹⁵⁷ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 1(g)

doctrine.⁹⁵⁸ In its official statement released after the TPNW was opened for signature on the 20 September 2017, NATO expressed that the TPNW did not only “disregards the realities of the increasingly challenging international security environment” but also seriously undermined the NPT by “creating divisions and divergences at a time when a unified approach is required more than ever”⁹⁵⁹.

However, NATO cannot continue to undermine the reality of the TPNW. On the one hand, many non-nuclear weapon NATO States are in dilemma between their commitment to NATO on its nuclear weapons posture and their national aspirations and obligations on nuclear disarmament. On the other hand, these non-nuclear weapon NATO States consider internal government security interest over and above their foreign public policy statements. All NATO States have interacted differently on different treaties over time. This obviously has wider implications for their alliance to NATO and by extension the alliance of the non-nuclear weapon NATO States to NATO on the TPNW in the long term.

Non-Nuclear Weapon NATO States and their Interests on the TPNW

The conflict of alliance of the non-nuclear weapon NATO States that are strong supporters of the TPNW yet maintain close defence and security cooperation with NATO is a determining and deciding factor on the long-term NATO position on the TPNW. For Example, Sweden is a country closely integrated with NATO in its operations, yet has commenced a comprehensive review to determine whether it is on its national interest to sign and ratify the TPNW. Similarly, Austria and Ireland have strong supports for nuclear prohibition at the same time maintain their security cooperations with NATO.⁹⁶⁰

From these indications, the TPNW is having difficult but necessary supports within NATO. NATO member States, which have divided interests between the organisation and the TPNW should collectively decide how to balance their engagement with the treaty as well as to continue to their commitments with NATO on nuclear deterrence. NATO States by reason of their alliance where nuclear weapons constitute part of mutual defence would invariably be violating the provisions of Article 1 of the TPNW.

Article 1(a) and (d) include prohibitions on the development, production, testing, and use of threat of nuclear weapons. Article 1(e) further prohibits States from assisting, encouraging or inducing any State in any way in engaging in any activity prohibited by the treaty.⁹⁶¹ These provisions directly affect the non-nuclear weapons NATO States that host the United States nuclear weapons in their territorial lands. These countries include the Netherlands, Germany, Belgium, Italy and Turkey. Specifically, Article 1(g) prohibits “any stationing, installations or deployment of any nuclear weapons”⁹⁶² in the

⁹⁵⁸ Shatabhisha Shetty and Denitsa Raynova, ‘Breakthrough or Breakpoint? Global Perspective on the Nuclear Ban Treaty: Global Security Special Report (European Leadership Network, December 2017)

⁹⁵⁹ North Atlantic Treaty Organisation (NATO), North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons (TPNW) < <https://www.nato.int/cps/en/natohq/news> > accessed 28/07/2018

⁹⁶⁰ Shatabhisha Shetty and Denitsa Raynova, ‘Breakthrough or Breakpoint? Global Perspective on the Nuclear Ban Treaty: Global Security Special Report (European Leadership Network, December 2017)

⁹⁶¹ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 1(a), (b), and (e)

⁹⁶² Ibid, art 1(g)

territory of any signatory to the treaty. Consequently, in as much as nuclear weapons remain a central focus to NATO's mission and defence, membership of the alliance will definitely be incompatible with the norms of the TPNW.

Political Analysis and Interpretation of the TPNW in the Context of the NPT

The TPNW will most likely have tremendous impact on the international politics associated with nuclear weapons diplomacy surrounding the NPT. The NPT Review Conference is scheduled for every five years and the next conference is in 2020. It is expected to see how the State parties to the TPNW desire to bring the treaty into existence in replacement of the NPT considered fraught with limitations. No doubt, the TPNW stands as an implementation of Article VI of the NPT and the TPNW State parties would want it to be acknowledged as such in the next NPT review conference. However, the NPT Review Conference final document are usually unpredictable, and if there is a sharp political division between the State parties to the TPNW and the nuclear weapons possessing States who are obviously against the TPNW on a consensus on the emergence of the TPNW in the next NPT conference, it would be a major political and a potential disservice to the TPNW.

The TPNW stands as an envisaged replacement of the NPT political division of the world into 'nuclear haves' and 'nuclear have not' by forcefully putting disarmament into front and centre of international nuclear diplomacy and the longstanding frustration of the NPT State parties on non-compliance of the NWS with Article VI of the NPT. The nine possessing nuclear weapons States can continue to avoid signing and ratifying the TPNW but it will be difficult and almost impossible for them to negate the fact of the expressed will of the international community that nuclear weapons should be banned and their development, possession and use are prohibited under international law.

Textual Structure of the TPNW

The Preamble

The TPNW has a comprehensive preamble that put into cognizance the catastrophic consequences of nuclear weapons, acknowledging the ethical imperatives for nuclear disarmament based on principles and rules of International Humanitarian Law. The preamble also expresses concern on the slow pace of nuclear disarmament and the continued reliance on nuclear weapons in military and security concepts, as well as recognising that a legally binding prohibition of nuclear weapons constitute an important contribution towards the achievement and maintenance of a world free of nuclear weapons.

The TPNW is the first global and multilateral legal instrument that specifically frame nuclear weapons as a threat to humanity and contrary to international humanitarian law. The preamble expresses the humanitarian case and stressing the concern for the catastrophic humanitarian consequences nuclear weapons. Consequently, the preamble portray the treaty as a legal instrument establishing a powerful norm against nuclear weapons and generating pressure for the need for disarmament through "disarmament education", raising awareness and and dissemination of its principles and norms. The preamble clearly clarifies that the TPNW solely deals with nuclear

weapons but recognising States inalienable right to peaceful uses of nuclear energy, a derivative of the NPT Article IV.

Article 1: Categorical Prohibitions

TPNW has a total numbers of 20 Articles with its essential obligations categorically prohibiting nuclear weapons contain in Article 1, as follows:

Each State party undertakes never under any circumstance to:

- a) “Develop, test, produce, manufacture otherwise acquire, possess or stockpile nuclear weapons or other nuclear explosives devices;*
- b) Transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly.*
- c) Receive the transfer of or control over nuclear weapons or other nuclear explosive devices directly or indirectly,*
- d) Use or threaten to use nuclear weapons or other nuclear explosive devices;*
- e) Assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State party under this treaty;*
- f) Allow any stationing, installation or development of any nuclear weapons or other nuclear explosive devices in its territory at any place under its jurisdiction or control”.*⁹⁶³

Articles 2 - 4: Provisions for Declarations, Safeguards and Total Elimination of Nuclear Weapons by Nuclear Weapons States and their Allies

Though the TPNW was successfully negotiated by only the Non-Nuclear Weapon States (NNWS) there are provisional frameworks for the Nuclear Weapon States (NWS) and their allies to join the treaty. The treaty provides two pathways for States with nuclear weapons either to destroy their nuclear stockpiles before joining or join before starting a timebound disarmament process. As a requirement, Article 2 provide that all States joining the treaty should make a declaration regarding whether they have ever “owned, possessed or controlled any nuclear weapons.”⁹⁶⁴ However, Article 4 offers States with nuclear weapons the opportunity to join the treaty with their nuclear weapons in their possession (or stationed in their territory), as long as the weapons are immediately removed from operation status and agree to “legally binding, time-bound plan for the verified and irreversible elimination” approved by the treaty member States⁹⁶⁵.

To ensure that nuclear weapons are being destroyed and to verify nuclear materials are kept safe and to prevent their diversion, Article 3 requires all signatories to the treaty to adopt safeguards supervised by the International Atomic Energy Agency.⁹⁶⁶ The TPNW allows safeguards to become stronger over time and prohibit weakening of

⁹⁶³ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 1,

⁹⁶⁴ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 2

⁹⁶⁵ Ibid, art 4

⁹⁶⁶ Ibid, art 3

safeguard regime. (Articles 3 & 4). These provisions prevent States from “forum-shopping” between the TPNW and the NPT.

Articles 5: Delegitimisation of Nuclear Weapons and National Implementation

To ensure that the treaty has a legitimate and administrative force, Article 5 which has just two paragraphs requires all the treaty member-States, to put in place, ...all appropriate legal, administrative and other measures, including the imposition of penal sanctions, to prevent and suppress any activity prohibited to a State Party under this Treaty undertaken by persons or on territory under its jurisdiction or control.⁹⁶⁷ This particular provision addresses the potential harms of nuclear weapons and underscores the legal basis for their prohibition and enforcement.

Articles 6: A Provision for Victims’ Assistance and Environmental Remediation

Following the moral arguments that arose from testimonies of survivors of nuclear weapons testings and detonations that necessitated the treaty negotiating process, civil society campaigners pressed hard to ensure that the treaty final text has normative provisions for the assistance of nuclear weapons victims as well as for the remediation of the contaminated environment arising from the explosion of nuclear weapons.

Consequently, Article 6.(1) stipulates that all the treaty signatories “... with respect to individuals under its jurisdiction who are affected by the use of testing of nuclear weapons, in accordance with applicable international humanitarian and human rights law, adequately provide age-and gender-sensitive assistance, without discrimination, including medical care, rehabilitation and psychological support, as well as provide for their social and economic inclusion”.⁹⁶⁸

In the same vein, Article 6.(2), clearly requires “each State party, with respect to areas under its jurisdiction or control contaminated as a result of activities related to testing or use of nuclear weapons or other nuclear explosive devices, shall take necessary and appropriate measures towards the environmental remediation of areas so contaminated”.⁹⁶⁹

Concerning the aforementioned provisions, there was a substantial debate about who should be liable and responsible in addressing the harm caused by the explosions of nuclear weapons. Many States wanted it very clear and simple, the governments that caused the harms to victims and the environment should be held liable and responsible such harms by helping the victims. However, the delegate from Ecuador during a plenary meeting have very different and distinctive view by saying “if a car hits me walking across First Avenue and drives away, I hope you don’t wait for the perpetrator to call the ambulance before giving me help”.⁹⁷⁰

⁹⁶⁷ Ibid, art 5(b)

⁹⁶⁸ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 6(1)

⁹⁶⁹ Ibid, art (2)

⁹⁷⁰ Matthew Bolton, ‘A Brief Guide to the New Nuclear Weapons Ban Treaty’ (Just Security, July 14 2017) www.justsecurity.org/43004/guide-nuclearweapons-ban-treaty accessed 30/07/2018

In line with applicable international humanitarian and human rights law, and in accordance with the principle of State sovereignty, the treaty accorded primary responsibility and control for assisting victims of nuclear weapons as well as remediating the contaminated environment affected by nuclear explosions. This is consistent with Article 6 (3) which says “the obligations under paragraphs 1 and 2 above shall be without prejudice to the the duties and obligations of any other States under international law or bilateral agreements”.⁹⁷¹

Articles 7: International Cooperation and Assistance

Since the TPNW consider nuclear weapons as a colossal threat to humanity, it neccasrarily provides that addressing the devastating concequences associated with nuclear weapons is a global duty of all governments and all people. Article 7 therefore gives a substantial range of responsibility to each States party of the treaty. This requires mutual and international cooperations amomgst the treaty member States. These cooperations include technical, material and financial assistance as contained in Article 7(3) to help “State parties affected by nuclear weapons use or testing”.⁹⁷² Furthermore, in Article 7(5) these assistance and cooperation is further extended to the United Nations, regional, national and international organisations or institutions including non-governmental organisations such as the international Committee of the Red Cross and other civil society groups.⁹⁷³

Meanwhile, Article 7(6) clearly expresses that States joining the treaty which have used or tested nuclear weapons “have a responsibility to provide the adequate assistance to affected Sates parties.”⁹⁷⁴ Article 7 in its entirety offer opportunities for States and international organisations that are not signatories to the treaty to engage with its norms. This engagement include provision of assistance of foereign aids to the victims of nuclear weapons on humanitarian basis.

Articles 8 – 12: Mechanisms for Meetings of States Parties, Costs, Amendments Settlement of disputs and Universality of the Treaty.

The quest for the achievement of nuclear disarmament has been fraught over the years with lack of compliance and political differences on the recommendations and reports arising from the multilateral forums mandated to negotiate it. The Conference on Disarmamen, the United Nations Security Council and the Non-Proliferation Treaty Reveiw Conferences for decades allow the Nuclear Weapon States to block all attempts to implement nuclear disarmaments measures. Article 8(2) of the treaty provides for a biennial meetings⁹⁷⁵ and Article 8(4) requires the treaty review conference to be held every six years after the period of five years following the treatie entry into force.⁹⁷⁶

⁹⁷¹ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 6(3)

⁹⁷² Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 7(3)

⁹⁷³ Ibid, art 7(5)

⁹⁷⁴ Ibid, art 7(6)

⁹⁷⁵ Ibid, art 8(2)

⁹⁷⁶ Ibid, art 8(4)

To ensure the smooth operations of the treaty mechanisms, Article 9 is entirely on the cost of paying for the meetings of the State parties of the treaty including the cost of implementation of verification measures.⁹⁷⁷ Consequently, Article 10 is on provisions for the State parties to adopt amendments to the treaty and to adapt new challenges.⁹⁷⁸ Article 11 clarifies how States will peacefully resolve disputes “relating to the interpretation or application of the treaty”⁹⁷⁹. Significantly, Article 12 stipulates that all State parties to encourage non-member States of the treaty’s regime to join for the purposes of the “goal of universal adherence”⁹⁸⁰

Articles 13 – 20: Validation and Consolidation the Treaty.

Articles 13 to 20 of the TPNW substantially cover the legal validation and consolidation of the treaty. These include how states can join the treaty by being signatories (Article 13),⁹⁸¹ by ratification, acceptance, approval or accession (Article 14)⁹⁸² and when the treaty come into force 90 days after 50 states must have ratified it (Article 15).⁹⁸³ Article 16, which is the shortest of all the treaty’s articles which says: “The Article of this Treaty shall not be subject to reservations” clarifies that States cannot attach reservations to their signature on the treaty⁹⁸⁴.

According to Article 17(1), the treaty is designed and intended for unlimited duration.⁹⁸⁵ Essentially, as required by Article 18, the implementation of the treaty “shall not prejudice obligations undertaken by States Parties with regard to existing international agreements, to which they are party, where those obligations are consistent with the treaty”.⁹⁸⁶ In Article 19, the treaty establishes the United Nations Secretary General as its official depositary⁹⁸⁷. Importantly, Article 20 the treaty final article codified Arabic, Chinese, English, French, Russian and Spanish languages as the authentic texts of the treaty.⁹⁸⁸ These languages are as well as the official languages of the United Nations.

Legal Intricacie of the Treaty

Apparently, the conclusion of the TPNW seems less captivating than its preambulatory elements. The treaty’s preamble constitute both the legal and humanitarian imperatives for nuclear disarmament. In relation of the TPNW to other nuclear arms control instruments such as the NPT and the CTBT, the treaty negotiators ensure that it does not undermine these other legal instruments. The preamble reaffirms the full and effective implementation of the Non-ProferationTreaty, “which serve as a corner stone of the nuclear disarmament and non-proliferation regime”. It further recognises

⁹⁷⁷ Ibid, art 9

⁹⁷⁸ Ibid, art 10

⁹⁷⁹ Ibid, art 11(1)

⁹⁸⁰ Ibid, art 12

⁹⁸¹ Treaty on the Prohibition of Nuclear Weapons, 7 July 2017, art 13

⁹⁸² Ibid, art 14

⁹⁸³ Ibid, art 15

⁹⁸⁴ Ibid,art 16

⁹⁸⁵ Ibid, art 17(1)

⁹⁸⁶ Ibid, art 18

⁹⁸⁷ Ibid, art 19

⁹⁸⁸ Ibid, art 20

the very importance of the Comprehensive Nuclear-Test-Ban Treaty and its verification regime as a core element of the nuclear disarmament and non-proliferation regime.⁹⁸⁹ Article 17(3) provide for the right of State party to withdrawal from the treaty⁹⁹⁰.

When the withdrawal clause was debated during the treaty' negotiation process, the vast majority of States were strongly in support of deleting or totally prohibiting withdrawal from the treaty. The withdrawal clause scaled through, through the insistence of few States such as Algeria, Bangladesh, Egypt, Iran, Philippines and Sweden. The withdrawal clause in the TPNW was strongly condemned by the civil society campaigners. They argued that allowing withdrawal would undermine the seriousness of universal and categorical prohibition the TPNW seeks to achieve.⁹⁹¹ However, almost every treaty including disarmament instruments such as the NPT have withdrawal clauses. The phrasing of Article 17(3) makes more stringent to withdraw from the TPNW than the NPT and the conventions prohibiting chemical and biological weapons.

The TPNW Article 10(1) provides for its amendments, and any State party may propose an amendment to the treaty at any time after it has entered into force.⁹⁹² The TPNW conference will be reviewed after a period of five years after coming into force and its subsequent review conferences would be convened every six years as specified in Article 9(4).⁹⁹³ Fundamentally, the TPNW has unlimited durational life span as stipulated in Article 17(1).⁹⁹⁴ And Article 17(2) says "*Each State party shall in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of the Treaty have jeopardised the supreme interests of its country*".⁹⁹⁵ The text of the TPNW is concise and precise to its specific obligations. When it come into force, the TPNW is expected to take precedence over the NPT and fill the seemingly unacceptable "legal gap" associated with the debate and discourse on nuclear weapons disarmament.

In expressing the support of Ireland to the TPNW, its delegate explained thus: "it demonstrate our ability to change the world one step at a time".⁹⁹⁶ Nevertheless, due to the non-participation of the treaty's negotiation process by the nuclear weapon possessing States, the aspiration of a nuclear free world the TPNW stands for would not be achieved anytime soon. The TPNW articulately places the human and environment damage nuclear weapons would cause at the centre of its conversation. The emergence of the TPNW stand to create political pressure on those States overwhelmingly not ready for nuclear disarmament. States such as Germany,

⁹⁸⁹ Ibid, preamble

⁹⁹⁰ Ibid, art 17(3)

⁹⁹¹ Matthew Bolton, 'A Brief Guide to the New Nuclear Weapons Ban Treaty' (Just Security, July 14 2017) www.justsecurity.org/43004/guide-nuclearweapons-ban-treaty accessed 30/07/2018

⁹⁹² Ibid art 10(1)

⁹⁹³ Ibid, art 9(4)

⁹⁹⁴ Ibid, art 17(1)

⁹⁹⁵ Ibid, art 17(2)

⁹⁹⁶ Matthew Bolton, 'A Brief Guide to the New Nuclear Weapons Ban Treaty' (Just Security, July 14 2017) www.justsecurity.org/43004/guide-nuclearweapons-ban-treaty accessed 30/07/2018

Netherlands, Norway, Japan and Australia that are diplomatically sympathetic to nuclear disarmament and not pursuing nuclear ambition with ignite the global moral ethical and legal consensus needed for the treaty to ratified.

Global Perceptions on the TPNW by Nuclear Experts

The global supports that follow the emergence of the TPNW underscore the need for the delegitimisation of nuclear weapons and reinforce the global norms against their existence. However, without the support and the participation of the NWS and other States known to possess nuclear weapons on the treaty negotiations, there is a reservation that the TPNW might be ineffective. Similarly, there is also a concern that the TPNW as a multilateral legal instrument that solely centres on the complete prohibition of nuclear weapons could undermine the NPT, which is regarded as the bedrock of international efforts to stem the spread of nuclear weapons and nuclear technology.

The emergence of the TPNW underlines the evidence of the worrying polarisation of States. A polarisation arising from the perception of complacency amongst the States known to possess nuclear weapons and their obvious unwillingness to take serious steps towards disarmament. In this section, the views of five nuclear experts across the globe on the TPNW as a global legal nuclear disarmament instrument is presented.

Views of Irma Arguello, Head of Secretariate, Latin American and Caribbean Leadership Network (LALN) and Chair, NPS Global Foundation

According to Arguello, the TPNW is a symbolic milestone that reflects the fact that many countries view the prohibition of nuclear weapons as the only path to total nuclear disarmament. This is NWS have over time have rejected the path to disarmament and the TPNW stands as a strong moral statement, more rather than an instrument of practical application. Arguello is of the view that several major flaws in the draft text of the treaty should be fixed before its entry into force. These flaws include the inconsistencies with the international law of armed conflict and issues relating to verification and safeguards. Arguello, emphasised that the treaty must avoid confusion and prevent any erosion to the NPT. In her view, the current process of bi-annual meeting and review of the TPNW would add a significant diplomatic burden for States.⁹⁹⁷

Considerably, the priority of all States should be to work together comprehensively on global nuclear risk reduction, particularly reducing the risk of potential use of nuclear weapons. This requires more intensive work on arm control measures, declaratory policies of Nuclear weapon States and enhancing the nuclear security regime to reduce risks posed by non-State actors. Furthermore, Arguello explained that disarmament verification must be become a global endeavour, with active participation of international community. Any strategy to for reducing the risks associated with nuclear arms will require active participation of all Nuclear weapon States and States known to possess nuclear weapons. Arguello is of the strong opinion of the vital

⁹⁹⁷ Global Perspective on the Nuclear Weapons Ban Treaty, The Nuclear Threat Initiative
www.nti.org/analysis/atomic-pulse-perspectives-nuclear-weapons-ban-treaty accessed 01 August 2018

visionary leadership of the United States, Russia and China to work reached a common view about how to reduce global nuclear insecurity.⁹⁹⁸

View of John Carson, Member of the Asia Pacific Leadership Network (APLN) and Counselor to the NTI, Former Director-General of the Australian Safeguards and Non-proliferation Office

In the view of John Carson, the TPNW should have been a landmark treaty, but its political and historical significance is undermined by major problems in the text especially on vital issue of safeguards and verification. Carson acknowledged that disarmament depends on rigorous and universal verification standards. However, the TPNW discriminate amongst parties, setting different requirements depending on party's circumstances. This and other problems reflect that the treaty was negotiated in only four weeks, an unprecedented pace for a treaty of such importance. Carson believe that if the United Nations General Assembly do not fix this problem, it will become a textbook case on how not to negotiate a treaty. However, despite the TPNW shortcomings, its message cannot be ignored.⁹⁹⁹

He stressed that two-third of the international community have made it clear the Nuclear Weapon States must stop making excuses for lack of progress on nuclear disarmament. The circumstances might not be right for complete disarmament in the near term, but there are many steps that can and should be taken now to reduce disarmament. This is essential not only to meet the world expectations but also for global survival.¹⁰⁰⁰

Views of Andrea Berger of the James Martin Centre for Non-Proliferation Studies

Andrea Berger is of the view that the TPNW is likely to further polarise the non-proliferation community, a development that both the proponents and opponents of the nuclear threat initiative share responsibility for. This is corroborated by the sharp dissenting statements issued by the US, the UK and France on the TPNW. Nevertheless, the TPNW arrives at a time when major challenges to the wellbeing of the NPT already exist. The crisis in US –Russia arm control and President Trump's apparent interest in unravelling the Joint Comprehensive Plan of Action with Iran are extremely concerning. Andrea also expresses her concern on the nuclear programmes in East Asia that are proceeding along similar worrying trajectories. Against this backdrop, she said the TPNW seems likely to become one ingredient in a recipe for multilateral gridlock, acting as a focal point for wider frustrations for all.¹⁰⁰¹

Views of Lewis A. Dunn, Independent Consultant and Former United States Ambassador to the 1985 NPT Review Conference

Lewis Dunn is of the opinion that the TPNW reflect deep frustration on today's nuclear disarmament statement and fear of the use of nuclear weapons. He described the treaty as a wake-up call for State-parties of the Non-Proliferation Treaty. However, he

⁹⁹⁸ Ibid

⁹⁹⁹ Global Perspective on the Nuclear Weapons Ban Treaty, The Nuclear Threat Initiative (NTI) www.nti.org/analysis/atomic-pulse-perspectives-nuclear-weapons-ban-treaty accessed 01 August 2018

¹⁰⁰⁰ Ibid

¹⁰⁰¹ Ibid

noted that the TPNW still generate greater polarisation and questions about the NPT's value in reducing nuclear danger. This will accelerate the treaty's loss of credibility and legitimacy. Furthermore, sooner than later, the TPNW effectiveness in supporting the security interests of the NPT Nuclear Weapon States will be undermined. In his view of the TPNW supporters, Article VI of the NPT remains the only legal obligation to advance nuclear disarmament. Their claim that the TPNW will lead to rethinking reliance on nuclear weapons is but a long-term hope.¹⁰⁰²

In the immediate term, the TPNW will not reduce today's nuclear dangers or reinvigorate a moribund nuclear disarmament process. The challenge for all State parties of the NPT is the agreement on a shared vision of the nuclear future and commitments to build the condition for its realisation. "The strategic elimination of nuclear weapons as means of statecraft, security, and power by 2045, one hundred years after the use of these weapons, is my proposed vision. The road to complete physical elimination runs inexorably through their strategic elimination."¹⁰⁰³

Views of Oliver Meier, German Institute for International and Security Affairs

Oliver expressed that the hastily drafted TPNW is a hybrid treaty. While it helps strengthen the norms against nuclear weapons possession and use, the treaty also includes elements that could undermine the global non-proliferation regime. Oliver gave example that the TPNW potentially opens the door to State "cherry picking" between provisions in the NPT and the TPNW. According to Oliver, the TPNW lacks definitions of terms and provisions, particularly on verification and lack of compliance procedures which make the TPNW difficult to implement and enforce. Oliver went further to make a suggestion to form a group of "friends of the nuclear order" that would work to advance the normative agenda of the TPNW, while minimising the potential risk of the NPT, the IAEA and the broader safeguards and verification regime¹⁰⁰⁴.

This group of "friends of the nuclear order" should consist of States, which have not joined the TPNW because of their alliance relationship to the treaty member States, which are supportive of a world free of nuclear weapons but have concerns over certain elements of the treaty and are interested in building bridges toward non-State parties. Oliver further explained that this group could advance joint parallel initiative at the NPT meeting of member States within the IAEA and during the future meeting of the TPNW member States with the view of reducing the contradictions and tensions between the TPNW and the NPT.¹⁰⁰⁵

The TPNW Emergence: A Milestone Development to this Present Research

The emergence of the TPNW is a milestone development to this present research because it is the first legally binding multilateral and international agreement comprehensively prohibiting nuclear weapons with the goal of leading towards their total elimination. The TPNW was adopted and opened for signature at the same period

¹⁰⁰² Global Perspective on the Nuclear Weapons Ban Treaty, The Nuclear Threat Initiative (NTI)

www.nti.org/analysis/atomic-pulse-perspectives-nuclear-weapons-ban-treaty accessed 01 August 2018

¹⁰⁰³ Ibid

¹⁰⁰⁴ Ibid

¹⁰⁰⁵ Ibid

this present research was in progress of its write up. The entire provisions of the TPNW complement this research efforts and arguments for nuclear disarmament with the call for all States at all times to comply with applicable international law in line with the principle of humanity and the dictates of public conscience.

4.10 The Non-Proliferation Treaty (NPT): Retrospect and Prospect

The Treaty on the Non-proliferation of Nuclear Weapons, generally referred to as the Non-Proliferation Treaty (NPT), is a multilateral and international agreement among party States; with the sole objective of preventing the spread of nuclear weapons and technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving general and complete nuclear disarmament.¹⁰⁰⁶

The NPT, which was opened for signature in July 1, 1968, became operationally effective and enforceable in March 5, 1970 with 43 member States as parties.¹⁰⁰⁷ Presently, the 190 member States have joined the treaty. However, the treaty recognises five States that also double as the five permanent members of the UNSC as NWS: China, France, Russia, United Kingdom and the United States.¹⁰⁰⁸ Meanwhile, these four nations which are not member States of the NPT: India, Pakistan, North Korea, and Israel are known to have nuclear weapons. India, Pakistan and North Korea have openly tested and declared that they own nuclear weapons,¹⁰⁰⁹ while Israel has had a policy of opacity regarding its nuclear weapons programme.¹⁰¹⁰

Regrettably, the Democratic People's Republic of Korea (DPRK) [North Korea] that acceded to the NPT in 1985 but never maintained substantial compliance, withdrew its membership in January 2003¹⁰¹¹ in conformity with the provision of Article X.¹⁰¹² Nevertheless, more member States have strictly adhered to the treaty than any other arms limitation and disarmament agreement. This underscores the significance of the NPT.¹⁰¹³

The NPT is made up of a preamble and eleven articles. The issues of non-proliferation, disarmament and the right to peacefully use nuclear technology are strongly regarded as the three pillars of the treaty. Though, the concept of the word 'pillars' is not articulated anywhere in its articles, the aforementioned concepts of non-proliferation,

¹⁰⁰⁶ UNODA – United Nations Office for Disarmament Affairs (Nuclear Weapons Home) www.un.org/disarmament/WMD/Nuclear accessed 21 May 2014

¹⁰⁰⁷ Kristen E. Boon et al, *Terrorism Commentary on Security Documents Volume 121: Nuclear Non-proliferation Treaty* (Oxford University Press, 2012) ix

¹⁰⁰⁸ Sverre Lodgaard, *Nuclear Disarmament and Non-Proliferation: Towards a Nuclear-Weapon Free World?* (Routledge Taylor & Francis Group, 2011) 99

¹⁰⁰⁹ Marie Isabelle Chevrier, *Arms Control Policy: A Guide to the Issues* (Praeger, 2012) 88

¹⁰¹⁰ Muthiah Alagappa, *The Long Shadow: Nuclear Weapons and Security in the 21st Century Asia* (Stanford University Press, 2008) 258

¹⁰¹¹ Joseph F. Pilat and Nathan E. Busch, *Routledge Handbook of Nuclear Proliferation and Policy* (Routledge Taylor & Francis Group, 2015) 22

¹⁰¹² Treaty on the Non-Proliferation on Nuclear Weapons, July 1, 1968, art X

¹⁰¹³ Committee on Government Reform, House of Representatives, *Weapons of Mass Destruction: Current Nuclear Proliferation Challenges* (Hearing before the Subcommittee on National Security, Emerging Threats and International Relations, 109th Congression, 2nd Session, September 26 2006) 26

disarmament and the peaceful use of nuclear technology constitute the pillars of the treaty.¹⁰¹⁴

The NPT is based on mutual agreement and understanding among the member States. According to the spirit and letter of the treaty, the NNWS on the one hand, agreed never to possess nuclear weapons and on the other hand, the NWS mutually agreed to share the benefits of peaceful nuclear technology and to pursue nuclear disarmament targeted at the total elimination of their nuclear arsenals.

The NPT is the only internationally binding agreement that provide a global barrier to the spread of nuclear weapons. The norm of non-proliferation, which the treaty embodies, and the wider non-proliferation regime underpins its efficacy by proving wrong the prediction that by the end of 20th century, 20 to 30 States would have acquired nuclear weapons.¹⁰¹⁵

Significantly, the treaty is reviewed every five years in a forum known as Review Conference of the Parties to the Treaty of Non-Proliferation of Nuclear Weapons in conformity with the envision and provision of Article VIII paragraph 3¹⁰¹⁶. Originally, the treaty was conceived with a limited time frame of 25 years, but by consensus, the member parties on 11 May 1995 during the Non-Proliferation Treaty Review and Extension Conference (NPTREC) agreed to extend the treaty indefinitely and unconditionally.¹⁰¹⁷

The indefinite and the unconditional extension of the treaty is inseparably and mutually reinforcing on the three pillars of non-proliferation, disarmament and the peaceful use of nuclear energy.

1) Non-proliferation: In Article I of the NPT, the NWS pledge not to transfer nuclear weapons or other nuclear explosives to any recipient or in any way assist, encourage or induce any NNWS in the manufacturing or acquisition of a nuclear weapon.¹⁰¹⁸ The NNWS agreed under Article II not to import, build or otherwise acquire nuclear weapons or other nuclear explosive devices and not to seek or receive assistance in the manufacturing of such devices.¹⁰¹⁹ Also, in Article III, the NNWS voluntarily accept that the International Atomic Energy Agency IAEA would

¹⁰¹⁴ Ambassadors Sudjadnan Parnohadiningrat , 3rd Session of the Preparatory Committee for the 2005 Review Conference of the Parties of the Treaty on the Non-Proliferation of Nuclear Weapons (United Nations Headquarters, New York) http://www.indonesiamission-ny.org/issuebaru/Events/opening_npt.htm accessed 21 May, 2014

¹⁰¹⁵ Stephen J. Cimbala, *The New Nuclear Disorder: Challenges to Deterrence and Strategy* (Routledge Handbook of Nuclear Proliferation and Policy (Routledge Taylor & Francis Group, 2016) 1

¹⁰¹⁶ Treaty on the Non-Proliferation on Nuclear Weapons, 1 July 1968, art VIII (3)

¹⁰¹⁷ Treaty on the Non-proliferation of Nuclear Weapons, U.S. Delegation to the 2010 Nuclear Non-proliferation Treaty Review Conference

¹⁰¹⁸ Treaty on the Non-Proliferation on Nuclear Weapons, 1 July 1968, art I

¹⁰¹⁹ Ibid, art II

verify they are not diverting nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices.¹⁰²⁰

The five NWS solely recognised by the NPT have undertaken not to use their nuclear weapons against any NNWS who is a signatory to the treaty unless in the case of extreme necessity such as response to a nuclear attack, or a conventional attack in alliance with a NWS. Officially, this undertaking and understanding have not been incorporated into the treaty, as the real details are still conceptually sketchy.¹⁰²¹

2) Disarmament: The language of the preamble of the NPT testify to the fact that the signatories of the treaty desire to ease international tension and strengthen international trust so as to create the conditions to stop the production of nuclear weapons, and total liquidation and disarmament, particularly nuclear weapons and their delivery vehicles from all nations arsenals. Under Article VI, the NPT obliges all parties to the treaty to undertake:

“to pursue negotiation in good faith on effective measure relating to cessation of nuclear arms at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.”¹⁰²²

This provision is the only legally binding obligation on NWS to reduce or ultimately destroy their nuclear weaponry. At the 2000 Non-Proliferation Treaty Review and Extension Conference (NPTREC), the States parties of the Treaty unanimously agreed upon “13 practical steps” to actualise their commitments towards nuclear disarmament.¹⁰²³ These 13 practical steps are highlighted and explained in **Chapter 1, Section 1.6.2.**

3) Peaceful Use of Nuclear Energy:

The NPT allows the transfer of nuclear technology and materials to State parties for the peaceful development of civilian nuclear energy programmes among signatories' nations, in as much such nation(s) can prove beyond all reasonable doubt that their nuclear weapons are not meant for developing nuclear weapons. Article IV of the NPT stipulates that all the parties have the right to fully participate in the best possible exchange of equipment, materials, and scientific and technological information for the peaceful use of nuclear energy.¹⁰²⁴

The NPT acknowledges the inalienable right of every nation State that is a signatory to the treaty to use nuclear energy for peaceful purposes with the limitation that this right must be expressed in conformity with Articles I and II which are the bedrock for

¹⁰²⁰ Ibid, art III (1)

¹⁰²¹ The Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-proliferation of Nuclear Weapons (NPT/CONF. 200/28 part I and II)

¹⁰²² Treaty on the Non-Proliferation on Nuclear Weapons, 1 July 1968, art VI

¹⁰²³ The Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-proliferation of Nuclear Weapons (NPT/CONF. 200/28 part I and II)

¹⁰²⁴ Treaty on the Non-Proliferation of Nuclear Weapons, 1 July 1968, art IV

non-proliferation of nuclear materials.¹⁰²⁵ The availability of fissile material has over time been considered the major obstacle to any country's disarmament effort. Countries possessing uranium enrichment and plutonium reprocessing (ENR) technology have the option of using these capabilities to produce fissile material for nuclear weapons.

This possibility is known as "virtual" nuclear weapon programme. The extent to which member States of the NPT have right to the uranium enrichment and plutonium reprocessing (ENR) technology has grave potential implication and interpretation of legal controversies revolving around the meaning of Article IV and its interrelatedness to Articles I, II, and III.¹⁰²⁶

The NNWS that signed the treaty have maintained the track record of not building nuclear weapons. Meanwhile, Iraq was indicted on 27 April 2004 by the IAEA with punitive sanctions enacted by the UNSC for violating its NPT obligations. In the same vein, Iran was culpable of non-compliance with its safeguard obligations of the Non-proliferation Treaty because of its failure in various instances over an extended period to report aspect of its enrichment programme.¹⁰²⁷ In addition, Libyan clandestinely pursued nuclear weapons programme and latter jettison it in 2003. In 1991, Romania non-compliance was reported to the UNSC by the IAEA for its previously undeclared nuclear activities by its government.¹⁰²⁸

In many regions such as all Africa sub-regions, it is understood that all neighbouring States are verifiably free of nuclear weapons because it reduces any pressure individual States might feel to build those weapons themselves, regardless of the fact that neighbours might be known for peaceful nuclear energy programmes that might otherwise be suspicious.¹⁰²⁹

Regardless of its landmark significance of the NPT and its Review Conferences that led to the 13 Practical Steps to meet disarmament commitments, the NPT is fraught with vague obligation on all party signatories to advance to the common front of total nuclear disarmament. Article VI of the NPT, which says:

*"Each of the Parties to the treaty undertakes to pursue negotiation in good faith on effective measures relating to cessation of nuclear arms at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."*¹⁰³⁰

¹⁰²⁵ Ibid, art IV (1)

¹⁰²⁶ The Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-proliferation of Nuclear Weapons (NPT/CONF. 200/28 part I and II)

¹⁰²⁷ Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

¹⁰²⁸ Ibid

¹⁰²⁹ Ibid

¹⁰³⁰ Treaty on the Non-Proliferation on Nuclear Weapons, 1 July 1968, art VI

The above article does not impose or strictly requires all signatories of the treaty to embark on immediate disarmament. Rather, it is a concession on all State parties “to negotiate in good faith” which is inherently laden with interpretations and often construed as vague. This Article constitutes the basis of the criticism that the NWS have failed to meet their formal and specific obligation on disarmament. The criticism is so strong, so much so that, the failure of the NWS to eliminate their nuclear armaments, most especially in the era after the Cold War has forced some NNWS to justify their withdrawal from the Non-proliferation Treaty and acquire their own nuclear weapon armaments.

However, many developing nations over the years have viewed the NPT as an instrument of continuous hegemony of the nuclear ‘haves’ over the nuclear ‘have-not’. This assertion is predicated on the disappointment with the insignificant progress on nuclear disarmament, where the Nuclear Weapon States NWS still possess up to 22,000 warheads and among themselves with the reluctance to eliminate them without any proscriptive sanction contained in the NPT.

A major gap on the effectiveness and fairness of the Treaty NPT is the provision of article IV, which encourages State parties to develop nuclear energy for peaceful purposes. Factually, the technology for producing nuclear energy is the same as the technology for producing nuclear weapons. The conversion from peaceful to non-peaceful use only entails enriching the Uranium or simply reprocessing the fuel rods into plutonium.

With the awareness of this technological capability, the NPT negotiators relied on the requirement of the recipients of nuclear technology to allow international inspectors such as the IAEA to monitor nuclear facilities to ensure compliance. However, this has been under strain after the 1991 Gulf War, when the UN mandated inspector team discovered that Iraq had clandestinely worked on the development of nuclear weapons in undeclared facilities, located adjacent to the facilities that have been declared to the IAEA under the Comprehensive Safeguards Agreement (CSA).¹⁰³¹

Beyond its criticism, it is an indisputable fact that the NPT is the cornerstone of the global non-proliferation policy. As a normative legal framework on nuclear disarmament, its universalization directly requires State actors to conclude all protocols as a condition for gaining nuclear co-operation. Legal possibilities in terms of ensuring compliance on the framework on nuclear disarmament and limitations associated with such provisions are examined both directly and indirectly in ensuring absolute non-proliferation of nuclear materials for attaining total nuclear disarmament.¹⁰³² The possibility of total nuclear disarmament is not solely on its legal framework but extensively on the political and diplomatic will of all States especially the NWS.

¹⁰³¹ Masahiko Asada, ‘The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol’ [2011] *Journal of Conflict & Security Law* 16(1), 3-34

¹⁰³² Ibid

4.11 Strategies for Nuclear Disarmament and Enforcement of Nuclear Non-Proliferation

There is an axiomatic universal belief that if the whole world were able to get rid of nuclear weapons, nuclear holocaust would be avoided. This is achievable bearing in mind that nuclear weapons can be out rightly outlawed in the same way and manner biological and chemical weapons are prohibited.¹⁰³³ Nuclear disarmament procedure is essentially intertwined with international peace¹⁰³⁴ in alignment with the principle of undiminished security for all.¹⁰³⁵

Obviously, clear-cut prohibition of nuclear weapons will permanently legitimise global consensual efforts to initiate international actions and sanctions against “rogue states”¹⁰³⁶ or “axis of evil”¹⁰³⁷ and other States that want to acquire nuclear weapons. The credibility of the prohibition of nuclear weapons requires the synchronization of their destructions.¹⁰³⁸ Necessarily, the prohibition of nuclear weapons presupposes a geo-political landscape predicated on mutual interests and reciprocity of trusts amongst States.¹⁰³⁹ A world devoid of nuclear weapons implies a system whereby the process of how to manufacture nuclear weapon disappears.

Granted that it is extremely difficult if not factually impossible to permanently obliterate the knowledge of the production of nuclear weapons across the globe, it then necessarily follows that nuclear weapons will always remain in the world regardless of any kind of draconian measure adopted by the international community to enforce their prohibition.¹⁰⁴⁰ Consequently, since disarmament and out right prohibition of nuclear weapons is presently out of reach, possibly not reachable in the nearest future, nuclear non-proliferation has been a laudable alternative, and should be continuously enforceable.

Conscious reduction and de-legitimation of nuclear weapons imply de-escalation of the nuclear arms race. However, actual disclosure of the nature, quantities and the enormous cost of maintaining nuclear weapons will elicit spontaneous public outcry against lack of universal transparency and nuclear deterrence theory. The nuclear arms control and the NPT are not designed to divulge Research and Development (R&D) of nuclear facilities and clandestine nuclear programmes.¹⁰⁴¹

This is purely because of the National Technical Means of Verification (NTMs): satellites monitoring techniques used to verify compliance of international arms

¹⁰³³ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 344

¹⁰³⁴ Thomas E. Doyle II, *The Ethics of Nuclear Weapons Dissemination: Moral Dilemmas of Aspiration, Avoidance, and Prevention* (Routledge Taylor & Francis Group, 2015) 67

¹⁰³⁵ David Krieger, *The Challenge of Abolishing Nuclear Weapons* (Transaction Publishers, 2011) 264

¹⁰³⁶ Noam Chomsky, *Rogue States: The Rule of Force in World Affairs* (Pluto Press, 2001) 1

¹⁰³⁷ Mark Palmer, *Breaking the Real Axis of Evil: How to Oust the World's Last Dictators by 2025* (Rowman & Littlefield Publishers Inc, 1st edn, 2005) 1

¹⁰³⁸ Daniel H. Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press, 2009) 73

¹⁰³⁹ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 344

¹⁰⁴⁰ Ibid

¹⁰⁴¹ Ibid

treaties are expected to have the capacity to detect hidden warheads.¹⁰⁴² This is a sophisticated way of counting and decoding nuclear warheads without their vehicular delivery systems such as the ICBMs (inter-Continental Ballistic Missiles); MIRVs (Multiple Independently Targable Re-entry Vehicles); and the SLCM (Sea Launched Cruise Missiles).¹⁰⁴³

Nuclear weapons prohibition and non-proliferation will be an exercise in futility unless States consensually adopt measures for immediate disarmament and reduction towards complete disarmament as stipulated in Article VI of the NPT. More realistically, the credibility of multilateral enforcement mechanisms to procedurally and gradually reduce the nuclear warheads of the NWS to zero is factually controvertible. This is because States may uncommittally agree with the provisions of multilateral prohibition while at the same time embark on clandestine nuclear weapons programmes as they have mastered the front-end and back-end of nuclear fuel cycle in building even more sophisticated nuclear weapons.¹⁰⁴⁴ The deliberate non-participation on the negotiation process and the non-support of the Treaty Prohibiting Nuclear Weapons by the nine States known to possess nuclear weapons indicate that NWS are seemingly not fully committed to nuclear disarmament in the nearest future.

4.12 The Achievements of the Legal Framework and Campaign for Nuclear Disarmament

The campaign for nuclear disarmament resonates in the legal framework (the various arms control treaties, including nuclear weapons) and the United Nations resolutions, as well as the historic 1996 adjudicatory Advisory Opinion of the ICJ on the Legality of the Threat or Use of Nuclear Weapons. The legal significance of the interpretation of the ICJ of Article VI of the NPT is to ensure that all State parties conclude negotiations based on strong political will on nuclear disarmament.

This means that the Court delinked the obligation to achieve nuclear disarmament from the objective of comprehensive de-militarisation, binding and applicable to all States irrespective of their membership of the NPT.¹⁰⁴⁵ As a follow-up to the ICJ Advisory Opinion, the UNGA adopted Resolution A/RES/60/76 in 2005.¹⁰⁴⁶ This resolution serves as multilateral consolidation and approval of the ICJ call for immediate fulfilment of the obligation to commence negotiation leading to an early conclusion of a nuclear weapons convention prohibiting the development, production, testing, deployment, stockpiling, transfer, threat or use of nuclear weapons. It can be rightly said that this resolution and the ICJ call are precursor to the emergence of the Treaty Prohibition Nuclear Weapons (TPNW) adopted by the UNGA on 7 July 2017 in Resolution 71/258.

¹⁰⁴² Geir Ulfstein, *Making Treaties Work: Human Rights, Environment and Arms Control* (Cambridge University Press, 2007) 258

¹⁰⁴³ Richard A. Scribner et al, *The Verification Challenge: Problems and Promises of Strategic Nuclear Arms Control Verification* (Springer Science + Business Media LLC, 1985) 210

¹⁰⁴⁴ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 13

¹⁰⁴⁵ John Burroughs, 'The Legal Framework for Non-Use and Elimination of Nuclear Weapons' (2006) Briefing Paper for Greenpeace International <http://icnp.org/disarmament/Gpeacebrfpaper.pdf> accessed 5 July 2016

¹⁰⁴⁶ United Nations General Assembly (UNGA) Resolution A/RES/60/70, December 8 2005

In 1996, the same year that the ICJ delivered its Advisory Opinion on nuclear weapons, the Comprehensive Test Ban Treaty (CTBT) negotiations were completed,¹⁰⁴⁷ but up to the time of writing-up this thesis (2017), the CTBT has not yet attained sufficient ratification to enter into force. Based on this, the need to begin the Conference on Disarmament with a non-discriminatory multilateral mandate on nuclear weapons prohibition is rekindled.

As sources of achievements and contributions to confidence-building and consensus in their respective regions, the various NWFZs in Latin America and the Caribbean (Treaty of Tlatelolco), the South Pacific (Treaty of Rarotonga), the South-east Asia (Treaty of Bangkok), the African NWFZ (Treaty of Pelindaba), and the Central Asia NWFZ (Treaty of Semipalatinsk), stand as reinforcements to the NPT in entrenching the norms of non-possession of nuclear weapons. These include general prohibition, manufacture, production, testing and deployment of nuclear weapons by the NWS.

A paramount achievement towards nuclear disarmament is the UNGA Resolution A/RES/55/33C entitled “Towards a Nuclear Weapon Free World”: The Need for a New Agenda”. This resolution reaffirms the practical steps required for nuclear disarmament adopted by the 2000 NPT Review Conference “that a nuclear weapon free world will ultimately require the underpinnings of a universal and multilaterally negotiated legally binding instrument or a framework encompassing a mutually reinforcing set of instruments.”¹⁰⁴⁸

Arising from the aforementioned developmental legal framework and achievements on nuclear disarmament, there were considerable bilateral agreements between the United States of America (USA) and the defunct Union of Soviet Socialist Republic (USSR). These agreements served as indices for the present multilateral treaties on nuclear weapons. Some of such agreements are still subsisting between the United States and the present day Russia.

In November 4 1969, the USA and the USSR began negotiations on the Anti-Ballistic Missile (ABM) defences and strategic nuclear offensive systems, which were concluded in May 26 1972 and became the Anti-Ballistic Missile Treaty that limited strategic intercontinental offensive arms and restricted missile defence systems. The enforcement of the ABM Treaty was under the supervision of the Standing Consultative Commission established under the Treaty.¹⁰⁴⁹

The ABM Treaty was a prelude to the successive Strategic Arms Limitation Talks (SALT I), and SALT II and the subsequent Strategic Arms Reduction Treaty (START I), START II, and START III. Concomitantly, the USA and the USSR in 1985 pursued separate but parallel negotiations on Ground Launched Cruise Missiles (GLCM) that eventually led to the emergence of the Intermediate Range Nuclear Force (INF) Treaty in 1987. The INF Treaty has provisions for right of States to conduct onsite inspections and right to establish a permanent continuous monitoring system. Consequentially,

¹⁰⁴⁷ Wade L. Huntley et al, *Nuclear Disarmament in the Twenty-First Century* (Hiroshima Peace Institute, 2014)

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¹⁰⁴⁸ United Nations General Assembly (UNGA) Resolution A/RES/55/33C, January 12, 2001

¹⁰⁴⁹ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing Ltd, 2011) 347

the Nuclear Risk Reduction Centre (NRRC), an established agreement in 1987 between the United States and Russia which also allows continuous communications between the two States for the prevention of nuclear war.¹⁰⁵⁰ These aforementioned arms control treaties have now been superseded by the emergence of the Treaty Prohibiting Nuclear Weapons (TPNW).

4.13 Conclusion

The posture in States public policy statements in various multilateral forums tends to indicate a consensual opinion about the objective of nuclear disarmament and possibly a world without nuclear weapons. However, in reality, there is a dichotomous disconnect between NWS and the NNWS on the progressive measures on nuclear disarmament discourse.

The NWS diplomatic declarations on disarmament are politically focused on nuclear weapons reductions via bilateralism such as between the United States and Russia or through unilateral moratorium. All these are technically couched in constructive ambiguities that posit, purport and support nuclear deterrence and the justification of nuclear weapons as guarantors for internal states security. Consequently, the NWS consider the achievement of nuclear disarmament as a long-term aspiration while the perspectives of the NNWS are perceived global pre-conditions regarding the urgency for nuclear disarmament.

Obviously, many NNWS have no dealings with the “Nuclear Sharing Arrangements”¹⁰⁵¹ or the “Nuclear Umbrella”.¹⁰⁵² The continuous reliance on nuclear weapons by the NWS is a collective departure by the NNWS as they view retention of reliance on nuclear weapons as an existential threat to humanity handled by few States as a national security interests. These divergent views make the legitimate quest for nuclear disarmament suffer from fundamental contradiction¹⁰⁵³ and credibility deficit.¹⁰⁵⁴

Multilaterally, the Comprehensive Test Ban Treaty (CTBT), which has not entered into force¹⁰⁵⁵ and the Conference for Disarmament (CD), which has been dysfunctional¹⁰⁵⁶ on nuclear disarmament for decades are a disservice to the achievement on nuclear disarmament. Remarkably, the increase in focus on the humanitarian consequences of nuclear weapons and the establishment of an open-ended working group for the achievement and maintenance of a world without nuclear weapons; and the consequent adoption of the Treaty Prohibiting Nuclear Weapons on July 7 2017 by the

¹⁰⁵⁰ Ibid, 348

¹⁰⁵¹ Richard Falk and David Krieger, *At the Nuclear Precipice: Catastrophe or Transformation?* (Palgrave Macmillan, 2008) 78

¹⁰⁵² Julian Schofield, *Strategic Nuclear Sharing* (Palgrave Macmillan, 2014) 130

¹⁰⁵³ Jeffery A. Frienden and David A. Lake, *International Political Economy: Perspective on Global Power and Wealth* (Routledge Taylor & Francis Group, 4th edn, 2014) 279

¹⁰⁵⁴ Trudy Govier, *Victims and Victimhood* (Broadview Press, 2015) 101

¹⁰⁵⁵ Marie Isabelle Chevrier, *Arms Control Policy: A Guide to the Issues* (ABC-CLIO LLC, 2012) 79

¹⁰⁵⁶ Scott Jasper, *Conflict and Cooperation in the Global Commons: A Comprehensive Approach for International Security* (Georgetown University Press, 2012) 248

UNGA¹⁰⁵⁷ are significant manifestations of a shared wish of the international community to prioritise the principle of undiminished security for all.¹⁰⁵⁸ The focus is mainly on the unthinkable humanitarian emergencies and the catastrophic global consequences posed by the destructive capability of nuclear weapons.

¹⁰⁵⁷ John P. Grant and J. Craig Barker, *Parry and Grant Encyclopaedic Dictionary of International Law* (Oxford University Press, 3rd edn, 2009) 440

¹⁰⁵⁸ Rudolf Th. Jurrjens and Jan Sizoo, *Efficacy and Efficiency in Multilateral Formation: The Experience of Three Arms Control Negotiation: Geneva, Stockholm, and Vienna* (Kluwer Law International Incorporation, 1997) 108

CHAPTER FIVE

THE RESEARCH FINDINGS AND RECOMMENDATIONS

5.1 Introduction

A wide spectrum of approaches for promoting and ensuring nuclear disarmament has been examined in the preceding chapters of this thesis. These approaches are underpinned by the legal framework on nuclear disarmament and they are mutually inclusive. Consequently, the research findings are largely influenced by the indirect contributions of the five existing Nuclear-Weapon-Free-Zones (NWFZs) and the Single-State Nuclear-Weapon-Free-Zones (SS-NWFZs) of Mongolia and New Zealand in the context of disarmament. The Non-proliferation of Nuclear weapons Treaty (NPT), the Treaty on the Prohibition of Nuclear Weapons (TPNW), applicable International Humanitarian Law (IHL) as well as the 1996 International Court of Justice Advisory Opinions on the legality or otherwise use of nuclear weapons and the legality of the use of nuclear weapons by a State in armed conflict, are also legal standpoints that elicit the research findings and influence the research recommendations.

The purpose of this chapter is to examine the research findings and research recommendations with the inclusion of a table mapping the original research contributions. This research on nuclear weapons disarmament in international law recognises the global diplomacy and political considerations surrounding the debate on nuclear disarmament within the legal framework and this invariably led to the identification of its findings.

Arising from the research findings are the research recommendations in line with the obligations of all States at all times to comply with the provisions of applicable international law in their commitments to nuclear disarmament. Besides the identifiable gaps in the Literature Review of this research in **Chapter 2**, highlighted in section **2.8.3**, which include the obvious absence of synergy between legal obligations and political will on nuclear disarmament. The following are the research findings factually and objectively discussed.

5.2 Research Findings

1) Nuclear Weapons have been Controversial from their Inception

Prior to the development and manufacturing of the very first nuclear weapons, scientists involved with the Manhattan Project were sharply divided over the use of the weapon.¹⁰⁵⁹ The nuclear weapon debate has grown from scientific to ethical/moral, military, political, diplomatic to legal after the horrific atomic bombings of Hiroshima and Nagasaki in Japan.

The Manhattan Project scientists and the scientists on the Interim Advisory Committee were divided on two issues: (i) should the U. S. drop the bombs on Japan and (ii) should the aim of America's ambitious nuclear policy be to eliminate nuclear weapons or to use the threat of nuclear weapons to eliminate nuclear war? While the first

¹⁰⁵⁹ Bruce Cameron Reed, *The History and Science of the Manhattan Project* (Springer, 201) 373

question has become an issue of historical debate, analysis and exegesis, the second question is still intensely and contemporaneously controversial.¹⁰⁶⁰

2) The Provisions of International Humanitarian Law (IHL) Prohibit the use of Nuclear Weapons

A fundamental principle of International Humanitarian Law (IHL) states that parties to armed conflicts must direct attacks only against designated military objectives. This include both military personnel and objects of military value. The rule of distinction in attacks is a norm of customary international law applicable both in international and non-international armed conflicts. Consequently, any weapon that is incapable of distinguishing between civilians and civilian objects as well as military targets is *ipso facto* considered inherently indiscriminate and its use is prohibitive. The provisions for Prohibition of the use of nuclear weapons in warfare under International Law are elucidated in **Chapter Four, section 3.4** – “The Use of Nuclear in Warfare and the Principles of International Humanitarian Law”. However, the United Nations Charter and the Geneva Conventions require that the use of any weapons:

Must be proportional to the initial attacks;

Must be necessary for effective self-defence;

Must not be directed at civilian or civilian objects;

Must be used in a manner that makes it possible to discriminate between military target and civilian targets;

Must not cause unnecessary or aggravated suffering to combatants;

Must not affect State that are not parties to conflict; and

Such weapon must not cause severe widespread or long-term damage to the environment.¹⁰⁶¹

Indisputably, nuclear weapons violate all the aforementioned rules. Also, potential use of nuclear weapons according to Articles 6, 7 and 8 of 2002 Rome Statute of International Criminal Court would amount to genocide (Article 6), crime against humanity, (Article 7) and war crime (Article 8).¹⁰⁶² This is as a result of the indiscriminate and catastrophic consequences nuclear weapons would cause to the civilian populations and the environment.

In the same vein, the two separate ICJ Advisory Opinions: (i) on the Legality of the Threat or Use of Nuclear Weapons and (ii) on the Legality of the use by a State of Nuclear Weapons in Armed Conflict, that were judicially declared on the same day, July 8 1996 affirm the above IHL provisions.

¹⁰⁶⁰ Robert Gilpin, *American Scientists and Nuclear Weapons Policy* (Princeton University Press, 1962) 49

¹⁰⁶¹ Christian J Tams and James Sloan, *The Development of International Law by the International Court of Justice* (Oxford University Press, 2013) 274

¹⁰⁶² Rome Statute of the International Criminal Court, 2002, arts 6, 7, &8

The World Court opined that nuclear weapons are subject to International Humanitarian Law and expresses its deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons and at the same time reaffirmed the need for all states at all times to comply with applicable international law, including international humanitarian law. On the legality or illegality of the use of nuclear weapons by a State in an extreme circumstances of self-defence, in which its very survival would be at stake, the ICJ critically and definitively conclude that the threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law.¹⁰⁶³

Conspicuously, the emphasis of the ICJ is on International Humanitarian Law. This implies that if the court has not given these two legal opinions, there is no existing vacuum in international law concerning the prohibition of the use of nuclear weapons. The ICJ made references to earliest legal instruments and law of armed conflict which all suggest the prohibition of nuclear weapons in warfare. This Advisory Opinion was given by the ICJ in 1996 before the enactment of the 2002 Rome Statute of the ICC, hence, the ICJ would have made specific references to the ICC provisions in Articles 6, 7, and 8 on genocide, crime against humanity and world crime which are suggestive against the use of nuclear weapons.

3) The Ambivalence of the Non-Proliferation Treaty (NPT)

The NPT as the cornerstone nuclear weapons legal framework has undoubtedly yielded successful security results by making many States to abandon their nuclear weapons ambitions and at the same time making it difficult for other States to acquire nuclear materials and technology needed to build nuclear weapons.¹⁰⁶⁴ For example, the Republic of South Africa gave up its nuclear weapons on 24 March 1993 by the declaration of President F.W. de Klerk in a Special Joint Session of the South African Parliament¹⁰⁶⁵. This consequently made South Africa to remain a Nuclear Weapon Free State.

Similarly, on 5 December 1994 Belarus, Kazakhstan, and Ukraine signed the Budapest Memorandum on Security Assurances (commonly referred to as: Three Political Agreements) in their accession to the Non-Proliferation Treaty as Non-nuclear Weapons States by relinquishing their nuclear weapons to Russia.¹⁰⁶⁶ Also, as result of the non-proliferation regime of the NPT, on 19 December 2003 Libya renounced its clandestine decades old nuclear programme.¹⁰⁶⁷

¹⁰⁶³ Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, ICJ Reports 1996, p 245, para 42; Cf John Burroughs, *The (Il)legality of the Threat or Use of Nuclear Weapons: A Guide to the Historic Opinion of the International Court of Justice* (LIT VERLAG, 1997) 47

¹⁰⁶⁴ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968, art I

¹⁰⁶⁵ Y.G.M Luta, *United States Relations with South Africa: A Critical Overview from the Colonial Period to the Present* (Peter Land Publishing Inc, 2008) Xlix

¹⁰⁶⁶ Kyuryoon Kim et al, *Lesson of Transformation for Korea Unification* (Korean Institute for National Unification, 2014) 150

¹⁰⁶⁷ Joseph Cirincione et al, *Deadly Arsenals: Nuclear, Biological and Chemical threats* (Carnegie Endowment for International Peace, 2005) 319

Irrespective of its laudable contributory achievements, the NPT is fraught with some observable deficiencies and excesses which constitute its criticism. These include:

- I) It seems to be a discriminatory treaty, which upholds the perpetuity and superiority of the World Power position as NWS and the rest of the world as NNWS by unduly legitimizing their nuclear status.
- II) The NPT has no provisions for disarmament. Article VI which calls for negotiation in good faith and for a treaty on complete disarmament is ambiguous and unspecific thereby causing interpretative summersault.¹⁰⁶⁸ As the time of writing this thesis, the NPT has been 49 years in existence (1968 – 2017), despite its various Review Conferences schedule for every five years, it was only in July 2017 that the Treaty on the Prohibition of Nuclear Weapons (TPWN) came into existence. The treaty has so far had 53 signatories and only 3 ratifications. The TPWN would come into force 90 days after at least 50 States have ratified it.
- III) The NPT failed to check and proscribed the nuclear programmes of France and China in their continuous nuclear testing in gross violation of the Partial Test Ban Treaty of August 5 1963. France and China were not signatories to the PTBT. France established the *Centre d'experimentation du Pacifique* (CEP) at Moruroa (Aopuni) in 1964,¹⁰⁶⁹ conducted its last atmospheric test on 19 July 1974 and continued detonating nuclear weapons till 1996. China detonated its last atmospheric on 16 October 1980 and also continued its nuclear programme till 1996,¹⁰⁷⁰ whereas the NPT entered into force on 5 March 1970. Thus, making the NPT as a toothless backing bull dog incapable of keeping watch over effective implementation of relevant treaty obligations.
- IV) The NPT only appears to check the risks of horizontal proliferation¹⁰⁷¹ of “nuclear club”¹⁰⁷² either by the development of nuclear weapons by NNWS or the transfer of nuclear technology and nuclear weapons by NWS to the NNWS as enshrined in Article I.¹⁰⁷³ It does not cover the check of vertical expansion¹⁰⁷⁴ of nuclear technology and nuclear weapons. That is, the NWS increasing the stockpiles of their nuclear armaments. It is on record that Russia violated the horizontal non-proliferation provisions when it aided and abated

¹⁰⁶⁸ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968, art I

¹⁰⁶⁹ Yoko S. Ogashiwa, *Microstates and Nuclear Issues: Regional Cooperation in the Pacific* (Institute of Pacific of the University of South Pacific, 1991) 1

¹⁰⁷⁰ Gerhard Von Glahn and James Larry Taulbee, *Law Among Nations: An Introduction to Public International Law* (Routledge Taylor & Francis Group, 10th edn, 2016) 536

¹⁰⁷¹ Haralambos Athanasopoulos, *Nuclear Disarmament in International Law* (McFarland & Company Inc Publishers, 2000) 63

¹⁰⁷² Yehoshafat Harkabi, *Nuclear War and Nuclear Peace* (Transaction Publishers, 2008) 166

¹⁰⁷³ Treaty on the Non-Proliferation of Nuclear Weapons (NPT) 1968, art I

¹⁰⁷⁴ Jita Mishra, *The NPT and the Developing Countries* (Concept Publishing Company) 5

Iran with the supply of nuclear materials to develop nuclear reactors and nuclear bomb.¹⁰⁷⁵

- V) The NPT seems to be more of political instrument than legal yardstick as it polarises the world into nuclear have and nuclear have not.

The continuity of the indefinite extension of the NPT Review Conference after every five years without amending its discriminatory character is a conscious decision of the P-5 States to maintain their hegemony as NWS. Based on the foregoing, the NPT has not been able to adequately address the core issues associated with nuclear weapons disarmament. Upon these factors, States like India, Israel, and Pakistan who were never members of the NPT and North Korea which withdrew its membership from the NPT on 10 January 2003 based their justification of non-membership on the shortcomings of the NPT in order to pursue their nuclear programmes and ambitions.

4) The Importance of the Nuclear-Weapon-Free-Zone (NWFZ) Treaties and the Significance of the Single State Nuclear-Weapon-Free-Zones (SS-NWFZs) Status of New Zealand and Mongolia as Exemplary for Other States

As explained in **Chapter 3, Section 3.9**; the overriding notion underlying the respective Nuclear-Weapon-Free-Zone (NWFZ) Treaties is the committed alliance of States to establish the abolition of nuclear weapons from the entirety of their territories: land, waters and air. Presently, (at the time of writing this thesis), 112 States are party to the five NWFZ Treaties covering the entire southern hemisphere and a larger part of the northern hemisphere.¹⁰⁷⁶

All the NWFZ Treaties are full-fledged international legal instruments relied upon by the party States to realise nuclear non-proliferation and disarmament objectives in conformity with United Nations Disarmament Commission (UNDC) commitment:

“Nuclear-Weapon-Free-Zones are an important disarmament tool which contributes to the primary objective of strengthening regional peace and security, and by extension, international peace and security. They are also considered to be important regional confident building measures.”¹⁰⁷⁷

There is the existence of essential mutual complementarity amongst the Nuclear-Weapon-Free-Zone State parties in the light of the nuclear non-proliferation regime. However, despite the initial absence of global legally defined concept of Single States Nuclear Weapon Free Zones (SS – NWFZs), the political will of the governments of New Zealand and Mongolia to declare their countries as nuclear weapon free States have made the international community to institutionalise their Single State Status as

¹⁰⁷⁵ P.M. Kamath and Manas Chatterji, *Nuclear Disarmament: Regional Perspective on Progress* (Emerald Group Publishing Limited, 2013) 93

¹⁰⁷⁶ Peter Hayes, ‘The Status Quo Isn’t Working: A Nuke-Free Zone Is needed Now’ (2010) 5 (3), Global Asia the Debate a Nuclear-Free-Zone for Japan and South Korea? <https://www.globalasia.org/wp-content/uploads/2010/09/321.pdf>

¹⁰⁷⁷ United Nations – Meetings Coverage and Press Releases, ‘Disarmament Commission Adopts Guidelines on Nuclear-Weapon-Free Zones, Conventional Arms ...’ Press Release DC/2641* www.un.org/press/en/1999/19990430.DC2641.html

internationally recognised. This is good example for other States to emulate, especially the States that have reservations against the NPT for recognising the five permanent UNSC members as NWS.

5) Nuclear Disarmament: A Major Global and United Nations Concern

The United Nations and the Nuclear Age emerged almost simultaneously. The horrors of the use of nuclear weapons in Hiroshima and Nagasaki spurred the need to urgently address the devastating danger nuclear weapons pose. Consequently, the first UNGA Resolution established the United Nations Atomic Energy Commission to deal with the problems raised by the discovery of atomic energy.¹⁰⁷⁸ The 24th October 1953 landmark address by the U.S. President Dwight D. Eisenhower entitled “Atomic for Peace” facilitated the establishment of the IAEA in 1957.¹⁰⁷⁹

Under the NPT of 1968, the IAEA is saddled with the responsibility to conduct on-site inspections to ensure that nuclear materials are used only for peaceful purposes. As a result of the growing global concern on nuclear disarmament, the United Nations Conference on Disarmament – the sole multilateral negotiating forum on disarmament, produced the Comprehensive Nuclear Test Ban Treaty adopted in 1996 but not yet entered into force (at the time of writing up this thesis). As explained in **Chapter 4, Section 4.5** – United Nations Disarmament Structure and Resolutions on Nuclear Disarmament; the UN Office for Disarmament Affairs promote nuclear disarmament and non-proliferation.

6) Global Efforts on the Humanitarian Impacts and Consequences Surrounding the Danger of Nuclear Weapons

From the 2010 NPT Review Conference, States government officially began to express “deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons” and as well as reaffirm “the need for all States at all times to comply with applicable international law, including international humanitarian law.”¹⁰⁸⁰ Also, at the 2013 Session of the UNGA First Committee on Disarmament and International Security, a total of 125 Countries jointly delivered a statement highlighting the catastrophic humanitarian consequences of nuclear weapons and calling on all States to intensify their efforts to ensure the outright prohibition of nuclear weapons.

In consolidation of the concerted global efforts to outlaw nuclear weapons, both State and non-State actors actively participated in the “Humanitarian Impact” of Nuclear Weapons Conferences in Oslo, 2013; Nayarit, Mexico February 2014; and Vienna, Austria December 2014.¹⁰⁸¹ These conferences were succeeded by the UNGA December 2015 re-establishment of the Open-Ended Working Group (OEWG);

¹⁰⁷⁸ United Nations General Assembly (UNGA) Resolution 1 (1), January 24 1946

¹⁰⁷⁹ Burton I. Kaufman and Diane Kaufman, *The A to z of the Eisenhower Era* (Scarecrow press Inc, 2009) 23

¹⁰⁸⁰ 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), Draft Report of the Main Committee I, 20 May 2010 < www.un.org/en/con/npt/2010/pdf/npt_conf2010_inf_3pdf> accessed 28 December 2016

¹⁰⁸¹ Heather Williams et al, “The Humanitarian Impacts of Nuclear Weapons Initiative: The ‘Big Tent’ in Disarmament” Research Paper in International Security March 2015

mandated to develop legal measures and provisions to achieve a nuclear-weapon-free world¹⁰⁸² and the United Nations 7 December 2015 General Assembly Resolution 70/47 which adopted the Humanitarian Pledge. The Humanitarian Pledge explicitly seeks to prohibit nuclear weapon in its entirety.¹⁰⁸³

7) The Challenges Associated with Compliance and Verification of Nuclear Weapons, Materials and Facilities

Effective verification and compliance is necessary to achieve disarmament and for the world to be denuclearised. Pursuant to Article XII of the NPT the IAEA has a comprehensive multilateral verification system and responsibility. However, there are enormous challenges albeit some recorded successes. The most serious of the challenges associated with compliance and verification pertaining to nuclear materials and facilities is the ensuring capability to detect undeclared nuclear activities.

As indicated in **Chapter 3, Section 3.7**, the IAEA rely on the cooperation and compliance of states in verifying nuclear facilities. After the Gulf war in 1991, the IAEA discovered Iraq's clandestine undeclared nuclear facilities, located adjacent to the facilities that were declared.¹⁰⁸⁴ Other challenges include potential spread of proliferation of enrichment and reprocessing technologies and the implications of new fuel cycle technologies.

Also shown in **Section 3.7** as challenges associated with verification and compliance, is the IAEA discovering of South Africa, Iraq, and North Korea clandestinely producing nuclear weapons after over two decades; as well as the sole reliance of the IAEA on the European Atomic Community (EAEC or Euratom) raising questions regarding the objectivity the of EAEC's role in safeguarding Europe.

As explained in **Section 3.11 – The Global Threats and Challenges of Nuclear Terrorism**, there is no mechanism in place addressing the possibility of illicit transfer of nuclear materials by staff working at nuclear facilities. Corrupt staff who are sympathetic to terrorist groups can facilitate an unauthorised transfer of weapon-usage-nuclear material into the wrong hands. By and large, in addressing the issues of verification and compliance, inspection arrangement, decision-making process, availability of verification information, transparency and confidence building mechanisms are necessary conditions needed by the IAEA.

8) The Exorbitant Cost of Maintaining Nuclear Weapons

No doubt, manufacturing, maintaining and the modernisation of nuclear armaments immensely affect public resources accruable to education, public health care, disaster relief services, and other essential public services. Globally, the annual expenditure on nuclear weapons is estimated at US\$105 billion – amounting to \$12 million per

¹⁰⁸² The United Nations General Assembly (UNGA) Resolution L.13/REV.1 of the Seventieth Session of the First Committee on General and Complete Disarmament: Taking Forward Multilateral Nuclear Disarmament Negotiations, October 29 2015

¹⁰⁸³ United Nations General Assembly (UNGA) 70/48 on Humanitarian Pledge for the Prohibition and Elimination of Nuclear Weapons, Adopted on the Report of the First Committee (A/70/460), December 7 2015

¹⁰⁸⁴ Masahiko Asada, 'The Treaty on the Non-Proliferation of Nuclear Weapons and the Universalization of the Additional Protocol [2011] *Journal of Conflict & Security Law* 16(1), 3-34

hour.¹⁰⁸⁵ According to the 2002 World Bank forecast, a yearly investment of just US\$40 - 60 billion, that is, half of the amount of money presently spent on nuclear weapons across the world would have exceedingly met the universal agreement on the Millennium Development Goals (MDG) on poverty alleviation targeted at 2015.¹⁰⁸⁶

The global nuclear weapons expenditure in 2010 was twice above the official monetary developmental aid given to the whole of Africa and equal to Bangladesh's Gross Domestic Product (GDP) as a country of over 160 million inhabitants. As a further comparison, the United Nations Office for Disarmament Affairs (UNODA), a principal UN organ saddled with the responsibility of advancing a nuclear-weapons-free world has an annually budget of US\$10 million which is far lesser than amount of money spent on nuclear weapons every hour.¹⁰⁸⁷

The table below is the 2010 and 2011 expenditure in U.S. dollars of the nine Nuclear Weapons States (NWS): the five de jure States officially recognised by the NPT and the four de facto States not party to the NPT.

Country	2010 spending	2011 spending
United States	\$55.6bn	\$61.3bn
Russia	\$9.7bn	\$14.8bn
China	\$6.8bn	\$7.6bn
France	\$5.9bn	\$6.0bn
United Kingdom	\$4.5bn	\$5.5bn
India	\$4.1bn	\$4.9bn
Israel	\$1.9bn	\$1.9bn
Pakistan	\$1.8bn	\$2.2bn
North Korea	\$0.7bn	\$0.7bn
Total	\$91.0bn	\$104.9bn¹⁰⁸⁸

In this thesis, there is no specific section on global nuclear weapons spending. However, in **Chapter, Section 5.2**, it has been pinpointed that NWS expend huge amounts of money in maintaining their nuclear arsenals. For example, Russia has budgeted \$70 billion from between 2011 and 2020 for strategic nuclear force. In the same way, the United Kingdom has budgeted GBP 15 – 20 billion in replacing its Trident nuclear weapon system by 2024.

The expenditure of the United States of America on nuclear weapons is equally significant. From 1940 – 2005, America spent not less than \$7.5 trillion on cost and

¹⁰⁸⁵ Jake Lyron, *The Shrinks from Planet Zeb: Psychiatry for a Mad World* (e-book, 2011) 54

¹⁰⁸⁶ International Campaign to Abolish Nuclear weapons (ICAN), 'Spending on Nuclear Weapons' <http://www.icanw.org/the-facts/catastrophic-harm-diversion-of-public-resources> accessed 19/08/2016

¹⁰⁸⁷ International Campaign to Abolish Nuclear weapons (ICAN), 'Spending on Nuclear Weapons' <http://www.icanw.org/the-facts/catastrophic-harm-diversion-of-public-resources> accessed 19/08/2016

¹⁰⁸⁸ Ibid

consequences on its nuclear programmes.¹⁰⁸⁹ According to the 2015 Congressional Budget Office (CBO), the United States government will spend an estimated budget of \$348 billion over the next decade to maintain, upgrade and operate its nuclear weaponry. This estimate represent \$35 billion per annum.¹⁰⁹⁰

Over the next decade, the NWS governments will spend \$1 trillion on their nuclear weapons at the expense of the cuts to education, health care, and other essential services and at a critical time where there is global economic recession on the rise. The prioritised exorbitant global nuclear funding lends credence to the view of Ban Ki-Moon, the former United Nations Secretary General:

*“The world is over-armed and peace is under-funded ... The end of the Cold war has led the world to expect a massive peace dividend. Yet, there are over 20,000 nuclear weapons around the world. Many of them are still on hair-trigger alert, threatening our own survival.”*¹⁰⁹¹

The total UN Peacekeeping annual budget amounts to about \$10 billion. This is below one-tenth of the expenditure of the Nine NWS for modernising and maintaining their nuclear armoury. Antithetically, nuclear weapons – instruments of annihilation, have more funding than the UN Millennium Development Goals of eradicating extreme poverty and hunger; achieving universal primary education; reducing child mortality rate; improving health care and ensuring global climate and environmental stability.¹⁰⁹²

The concern on the exorbitant cost of maintaining and producing nuclear weapons raised here are from the perspectives of the developing world and global public. Regardless of the global perspective or public feelings on the huge amounts of money spend on nuclear weapons, States with nuclear capabilities especially the NWS are more concern about their defence and national security and they are always determined to spend much needed resources to ensure their national security.

9) Nuclear Deterrence Doctrine or Theory Not Known to Law

It was argued in **Chapter 4, Section 4.4** that nuclear deterrence has no lawful codification. As a matter of fact, both nuclear weapons and nuclear deterrence are arguably described as illegitimate instruments of State policy¹⁰⁹³ and they constitute instrumentalities of international lawlessness¹⁰⁹⁴ and ambitious global political hegemony of the NWS.

¹⁰⁸⁹ David Krieger, ‘The High Costs of Nuclear Arsenals’ (2011) Counter punch,

<https://www.counterpunch.org/2011/1102/the-high-costs-of-nuclear-arsenals> accessed 19/08/2016

¹⁰⁹⁰ Congressional Budget Office (CBO), ‘Project Costs of U.S. Nuclear Forces, 2015 to 2024’

<https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49870-NuclearForces.pdf> accessed 19/08/2016

¹⁰⁹¹ United Nations Secretary-General Ban Ki-moon, Secretary General’s Remarks to an International Conference “ For a Nuclear Free, Peaceful, Just and sustainable World”

<https://www.un.org/sg/en/content/sg/statement/2010-05-01/secretary-general-remarks-international-conference-nuclear-free>> accessed 19/08/2016

¹⁰⁹² David Krieger, ‘The High Costs of Nuclear Arsenals’ (2011) Counter punch,

<https://www.counterpunch.org/2011/1102/the-high-costs-of-nuclear-arsenals> accessed 19/08/2016

¹⁰⁹³ Francis Anthony Boyle, *The Criminality of Nuclear Deterrence* (Clarity Press, 2002) 73

¹⁰⁹⁴ *Ibid* 74

Therefore, on no condition, not even retaliation justifies the use of nuclear weapons under international law. Nuclear deterrence is prominent because of the combination of the political and military elements embedded in its doctrine. Non retaliation of the use of nuclear weapons by a sovereign State under nuclear attacks seems naïve in the light of Article 51 of the UN Charter which recognises every State inherent right to self-defence. Any nuclear attack or 'first strike' as a result of the devastating impacts of nuclear weapons would amount to gross violation of the 2002 Rome Statute of International Criminal Court resulting in genocide, crime against humanity and world crime. Consequently, retaliation on nuclear attacks would be too devastating and escalating into global nuclear war. The ultimate solution to avoid any nuclear attack or nuclear retaliation is nuclear disarmament.

10) International Politics and Bureaucracy Affecting the Conference on Disarmament (CD) and the non-ratification of the Comprehensive Nuclear Test-Ban Treaty (CTBT) by some Nuclear Weapon States (NWS)

International politics is the realm of struggle, power, hegemony and compromise. The fundamental question now is: how has international politics influenced nuclear disarmament process. Nuclear weapons have produced revolutionary change in the international system and international system corresponds to the logical ways of reshaping a system of collective bargaining. Both in the past and in the present, international organisations and conferences have produced a variety of international law. Unfortunately, in spite of the reflection of global public sentiments and international practice, no agency has successfully enforced international law.¹⁰⁹⁵

Consequently, the NWS have not fulfilled their disarmament pledges despite the various NPT Review Conferences. NWS tends to support non-proliferation because many remote and immediate factors influence States decision making on the international plane.

The Conference on Disarmament (CD) has been unsuccessful and dysfunctional due to democratic deficit. The root cause affecting the CD as multilateral disarmament machinery is international political factors rather than the facets of the machinery itself. As discussed in **Chapter Four, Section 4.6**, the Comprehensive Test Ban Treaty (CTBT) as pivotal as it is, has not been ratified by some NWS to make it enforceable, due to political division, suspicions and reservations.

Essentially, the issue of democratic deficit raises the question of the right of entitlement to possess nuclear weapons. This further resonates in one of the research questions inspired by the doctrine of sovereign equality "what is the rationale behind the classification of the five permanent United Nations Security Council UNSC States as Nuclear Weapons States (NWS) in contradistinction to the rest of the world as Non-Nuclear Weapon States (NNWS)"

¹⁰⁹⁵ Michael Mandelbaum, *The Nuclear Revolution: International Politics Before and After Hiroshima* (Cambridge University Press, 1988) 30

11)The Republic of Marshall Island (RMI) Case in the International Court of Justice (ICJ) Against the Five *De Jure* and the Four *De Factor* Nuclear Weapons States (NWS) and the Impacts of the ICJ Rulings on October 5 2016

An insightful finding of this research highlighted in the **Literature Review** is the 24 April 2014 legal case instituted by the Republic of Marshall Island (RMI) against the nine NWS in the ICJ. In the filed applications against the United States, United Kingdom, France, Russia, China, India, Pakistan, Israel and North Korea, RMI is claiming these States have violated their disarmament obligations under Article VI of the NPT and customary international law. Specifically, the RMI also filed a companion case against the United States in the U.S. Federal High Court.¹⁰⁹⁶

Besides its 1996 Advisory Opinion on the legality or otherwise of nuclear weapons, this RMI case is the first time the ICJ have received a case and been asked to adjudicate on nuclear disarmament, bordering on the violation of the nuclear weapons possessing States. Interestingly, this case will invariably serve to bring the legal obligations relating to nuclear disarmament back to action.

Five of the defendants: China, France, Russia, United Kingdom and the United States of America are not only legitimately recognised by the NPT as NWS but are concomitantly the Five Permanent (P5) UNSC members. Three of the nine defendants States: United Kingdom, Indian and Pakistan have accepted the compulsory jurisdiction of the ICJ under Article 36 (2) of the ICJ Statute, at the time of writing this thesis. China declined the ICJ jurisdiction by official notification to the ICJ, while the RMI is urging all the defendant States to accept the jurisdiction of the World Court and explain their position regarding the obligations on nuclear disarmament.¹⁰⁹⁷

On Wednesday 5th of October 2016, the ICJ delivered its rulings on preliminary objections to jurisdiction in three separate cases brought by Republic of Marshall Island against India, Pakistan and the United Kingdom. By a vote of 8-8 and by the casting of vote of Ronny Abraham, the President of the World Court, the Court upheld the objection of the United Kingdom that there was no sufficient evidence of the existence of a dispute and therefore the ICJ does not have jurisdiction to hear the case on merits. Similarly, by a vote of 9-7, the Court upheld the objections of India and Pakistan that there was no sufficient evidence of the existence of a dispute and therefore the ICJ does not have jurisdiction to hear the case on merits.

This unprecedented lawsuit ruling was very disappointing and particularly worrying that the World Court cannot be unanimous on what it takes to establish a dispute in the context of nuclear disarmament. Only the United Kingdom, India and Pakistan appeared before the ICJ since they are the only countries that accepted the compulsory jurisdiction of the ICJ. The United States, China, Russia, France, Israel and North Korea chose to ignore this case *ab initio* (from the beginning).

¹⁰⁹⁶ Jonathan L Black-Branch, *Nuclear non-Proliferation in International Law: Volume II Verification and Compliance* (Asser Press, 2016) 9

¹⁰⁹⁷ International Court of Justice (ICJ), 'The Republic of Marshall Island files Applications against Nine States for their Alleged Failure to fulfil their Obligations with Respect to the Cessation of Nuclear Arms Race at an Early Date and to Nuclear disarmament 25/04/2014 www.icj-cij.org accessed 20 August 2016

5.3 Research Recommendations

The only lasting solution and possible way out of the global threat nuclear weapons pose to international peace and security is complete nuclear disarmament. Elimination of nuclear weapons and realization of a nuclear-weapon-free world is possible. To achieve nuclear disarmament, the international community through the United Nations should first and foremost ensure the following tripartite measures:

- a) Establishment of a robust global security concept characterised by mutual trust and benefit based on equality and cooperation. Nuclear disarmament process is predicated on international security. Therefore, a peaceful, secure, and stable global practice of compliance obligations necessary requirements.
- b) Pre-conditional continuity of global strategic balance and stability in the nuclear weapon disarmament process. Nuclear Weapon States (NWS) should strictly adhere to their solemn commitment and obligations made in the various NPT Review conferences underpinning international strategic security and stability. This relatively implies the capabilities of all States to achieve the objective of disarmament.
- c) Nuclear disarmament measures and procedures should be in conformity with the principle of undiminished security for all States, regardless of their nuclear weapons status. All States especially the NWS and States with nuclear capabilities and ambition to desist from nuclear development, deployment and detonations.

More pragmatically, the following recommendations arising from this research are crucial for the attainment and achievement of a nuclear-weapon free world:

- 1) The NWS should assume special responsibility in the nuclear disarmament process. They are under the obligation of the NPT and its Review Conferences to eliminate their nuclear weapons bearing in mind the “principle of irreversibility.” The United States as the first nation that manufactured nuclear weapons and the only country that have used them, has the special task to lead in achieving its obligations for nuclear disarmament under international law. The “principle of irreversibility” was introduced into the NPT framework at the 2000 NPT Review Conference as one of the “13 Practical Steps” towards nuclear disarmament. It has become a mainstream notion that has entered the lexicon of nuclear disarmament both as a practical measure applying to nuclear material no longer needed for military purposes and as arms control and general disarmament norm.
- 2) Similarly, all NWS should make unconditional commitment not to use or threaten to use nuclear weapons against NNWS.

- 3) Both the NWS and NNWS involved should jettison the “Nuclear Umbrella” policy or “Nuclear Sharing Arrangement.” “Nuclear Sharing Arrangement” is a counterproductive to nuclear disarmament.
- 4) All Nuclear Weapon States (NWS) should withdraw and destroy nuclear weapons deployed outside their territories.
- 5) All Nuclear Weapon States (NWS) should support and comply with the obligations of the various Nuclear-Weapon-Free-Zone Treaties.
- 6) The United Nations should encourage Israel, Egypt, Iran, Iraq and all States in the Middle East to quickly enact the long proposed Middle-East-Nuclear-Free-Zone (MENWFZ) with applied terms and conditions similar to the five existing Nuclear-Weapon-Free-Zones (NWFZ) in other regions.
- 7) Multilateral negotiations on the long outstanding Fissile Material Cut-off Treaty (FMCT) should be given expedient priority and concluded. The FMCT will end the production of weapons-usable fissile material (highly enriched uranium and plutonium)
- 8) All States regardless of their nuclear weapons status should as a matter of global urgent concern ratify the Treaty on the Prohibition of Nuclear Weapons to enable it come into force as a multilateral legal instrument on the complete prohibition and proscription of nuclear weapons.

5.4 Table Mapping the Original Research Contribution to Knowledge

In line with the standard of doctoral assessment guidelines, requiring original contribution to knowledge, the table below is arranged to provide a mapping of areas where original contribution to knowledge could be found in this thesis.

<i>The Research Contribution to Knowledge</i>	<i>Chapters of Contribution</i>
1. a) The research intent and advocacy for nuclear disarmament through the framework of international treaties b) The importance of concept of multilateralism as an international approach to the growing concern on nuclear disarmament	Chapter 1 1.5 (page 14) 1.6.4 (page 31)
2. a) The relevance of natural law theory to the debate on nuclear disarmament	Chapter 2 2.4 (page 46)

b) The link between legal positivism and the legal framework on nuclear disarmament as a commendable objective	2.5 (page 48)
3. The identification of gaps in the literature review and attempt to fill such gaps from the perspective of philosophy of law in Chapter 2, as well as from the contextual examination of the framework on nuclear disarmament in chapters 4 and 5.	Chapter 2, 2.8.3 (page 95)
4. a) The significance of the NWFZs and the SS-NWFs as prelude from regional to global nuclear disarmament. b) The synergy of the legal and humanitarian imperative for nuclear disarmament	Chapter 3 3.9, (page) 3.10 (127) 3.13 (page 149)
5. a) The exploration of the timely emergence of the TPNW in this research as the expected milestone legal instrument crucial to nuclear disarmament. b) The link between the legal framework and the global advocacy for nuclear disarmament	Chapter 4 4.9 (page 177) 4.11(page 199)
6. Recommendations arising from the research findings	Chapter 5, 5.3 (Page 215)

5.5 Conclusion

The various aforementioned research findings together with the research recommendations in this chapter, revealed the numerous long lasting legal, political, and theoretical questions surrounding the dynamics of nuclear disarmament. These questions are hereby summed up in quadruple questions that are both deeply intertwined and interwoven and as a result, they cannot be viewed in isolation from one another. First, how do the nuclear weapon disarmament legal framework interface with international politics and shape international diplomatic efforts for the realisation of a nuclear free world? Second, why has the legal conditionality on nuclear disarmament have not held sway over political considerations affecting disarmament? Third, why do this nuclear disarmament legal research is embedded with international politics and policies? and Lastly, can this doctoral thesis and other similar research

that viably contribute to the steps needed for the implementations of nuclear disarmament be adopted by global policy makers?

The obvious non-compliance of States especially the Nuclear Weapon States on their nuclear disarmament commitments grossly undermines the legal provisions on disarmament. Notwithstanding, the aspirational objective of the attainment of nuclear disarmament within applicable international law remain sacrosanct. It is on this basis, this research recommendations is predicated. The international politics and policies affecting disarmament process and aspiration both in the past and in the present reflect State sentiments and practice. The Conference on Disarmament (CD) has been dysfunctional and not be successful largely due to political factors rather than its legal multilateral disarmament machinery.

The prominence of the doctrine of nuclear deterrence is a consequence of the hegemonous political elements embedded in it. Factually, the acquisition of nuclear weapons and the doctrine of nuclear deterrence have no legal codification. They have been arguably described as illegitimate instruments of State practice and they constitute instrumentalities of international lawlessness. Nuclear weapons due to their potential colossal destructiveness and the enomous humanitarian consequences associated with any of their use have been controversial from their inception. Consequently, nuclear disarmament has been a global and United Nations concern as the need to address the devastating danger nuclear weapons pose is more urgent now than ever before.

However, effective verification and substantial compliance are necessary to achieve nuclear disarmament. Pursuant to Article XII of the Non-Proliferation of Nuclear Weapons Treaty, the International Atomic Energy Agency has a comprehensive multilateral verification system and responsibility. To ensure nuclear disarmament, States and non-State actors are obliged to comply with legal stipulations on effective verification and compliance. As part of a concerted global efforts to outlaw nuclear weapons, the United Nations General Assembly on 7 December 2015, adopted Resolution 70/47 on Humanitarian Pledge. The Humanitarian Pledge explicitly seeks to prohibit nuclear weapons in their entirety.

CHAPTER SIX

THE RESEARCH SUMMARY AND CONCLUSION

6.1 Introduction

The legal challenges and political considerations associated with nuclear weapons disarmament, which this thesis examines have strongly polarised the debate over the legality of nuclear weapons acquisitions, possessions and their use. While various international legal instruments place substantial restrictions on nuclear weapons, the Treaty on the Prohibition of Nuclear Weapons (TPNW) outrightly out law nuclear weapons in their entirety. The core considerations on the discourse subsumed under international politics and the Humanitarian Pledge are still enmeshed in discrepancies and diplomatic intricacies. Considerations such as the doctrine of nuclear deterrence, humanitarian imperatives for nuclear disarmament, nuclear arms limitation, control, and non-proliferation; and Nuclear Weapons States moratorium on nuclear programmes still have indices of credibility deficits as a result of non-compliance and enforcement.

The preceding last two chapters underscore the reality that nuclear disarmament and non-proliferations are fundamental elements of global international legal frameworks. The overwhelming dangers nuclear weapons pose to human lives, global health, development, climate, social structures and human rights are enormous enough for a coherent multilateral approach to address the prevailing problems of nuclear disarmament. On the one hand, the nuclear arms race and its historical antecedents paved the way for the legal arguments and the humanitarian imperatives for disarmament in this research. On the other, the political implications and diplomatic influences interface with the legal framework for nuclear disarmament.

This concluding chapter of this thesis comprises a precise summary on the reality on nuclear disarmament arising from the research, embedded with nuclear disarmament: natural law theory as ethical legitimacy and legal positivism as legal determinacy as well as the researcher's reflective argument arising from these jurisprudential theories. This chapter also contain a section on a brief description on the research limitations, together with the conclusion section on the entire research. In clarifying and streamlining the discussions on nuclear disarmament, it is important to emphasise that nuclear disarmament has been in the forefront of international law since the inception of the United Nations in its very first General Assembly Resolution.

In promoting the the need for nuclear disarmament, the conclusion of this research therefore reinforces and re-emphasises the need for all States at all time to comply with all applicable international law to strengthen the legal regime for nuclear disarmament. In the absence of the coming into force of the TPNW, the Humanitarian Pledge, the call for States to identify and pursue effective measures to fill the legal gap for total elimination of nuclear weapons is a conceptual humanitarian framework complementing the legal imperative for disarmament.

6.2 Summary (Synopsis)

Statistics shows that there are about 22,000 nuclear weapons presently remaining in our world today and more than 2,000 nuclear tests have been conducted to date.¹⁰⁹⁸ Consequently, so long as nuclear weapons exist in the world, the potential risk of their use by articulation, miscalculation or megalomania meanness is real. Inevitably, any use of nuclear weapons would cause unthinkable humanitarian emergencies and catastrophic global consequences on the environment, climate, health, social order, human development and economic impact. The more the world realises the global humanitarian consequences associated with nuclear weapons, the stronger the case and urgent step needed against them.

Against this background, nuclear weapons are at loggerhead with the contemporaneous 21st –century corpus of international law, specifically, international humanitarian law. In this era of globalization *vis a' vis* the unimaginable destructive capability of nuclear weapons, the humanitarian dimension is central to the international community's non-proliferation of nuclear weapons and nuclear disarmament. However, in as much as NWS and their allies rely on nuclear weapons as legitimate security and protective hedge for self-defence, efforts to counter nuclear proliferation will always suffer from a fundamental contradiction and credibility deficit. Invariably, both the possession of nuclear weapons and reliance on nuclear deterrence are evidence of nuclear proliferation.

Based on this reality, the multilateral nuclear disarmament and nuclear non-proliferation regime is fraught with non-compliance. Essential parameters of the nuclear age, the belief that only few States actually possess nuclear weapons and have the required technological capabilities and knowledge to produce nuclear weapons is ironical. The nuclear technological threshold is growing high. This is apparently for political rather than technological consideration. It is a general believe that more "Rogue States" and "Axis of Evil" have acquired the knowledge of technological nuclear weapons capability to produce nuclear weapons.

The non-compliance by States on nuclear disarmament principles undermines the foundation of trust and safety upon which the mutual benefits of global nuclear cooperation are significantly predicated. Devoid of assurances, the transfer of nuclear technology within the framework of applicable safeguard for exclusive peaceful purposes as enshrined in Article IV (2) of the NPT will be extremely difficult if not impossible. Arguably, the existential non-compliance weakens the aspiration of the international community to general and total nuclear disarmament. As contained in the NPT Preamble and in Article VI, if the emergence of States possessing nuclear weapons cannot be stopped, new regional and global nuclear arm races are most likely to spring up and become entrenched. It is imperative therefore, that the NPT State parties should prioritise the development and implementation of vigorous and sustained efforts to detect violations of the NPT obligations and commitments.

The views of the NWS and the NNWS are parallel. The NWS perceive nuclear disarmament and the attainment of a nuclear-free-world as long-term aspirational

¹⁰⁹⁸ United Nations Office for Disarmament Affairs (UNODA), <https://www.un.org/disarmament/wnd/nuclear> accessed 05/09/2016

objective, while the NNWS consider nuclear disarmament as urgent and nuclear deterrence as a high global risk to both national and international security. The NNWS which do not belong to the Nuclear Umbrellas or that are not part of the “Nuclear Sharing Arrangement” consider nuclear weapons as highly destructive and retention and reliance on them is anachronistic. The Non-Aligned Movement (NAM) which are mainly Non-Nuclear Weapon States support the negotiation of a nuclear weapons treaty to delegitimize nuclear weapons and actualise disarmament within a specified time frame. The emergence of the Treaty on the Prohibition of Nuclear Weapons is a delight to the NAM.

Fundamentally, the divergent views between the NWS and the NNWS revolve around the NPT, obligations and commitments to nuclear disarmament and the achievement and maintenance of a world devoid of nuclear weapon. The NPT Article VI stands as the only legally binding multilateral nuclear disarmament obligation.

The phrase in this Article: “pursue negotiation in good faith” is so vague, so much so that, is largely left open to diverse interpretations and implemented loosely as the article does not specify a time frame or verification mechanism for nuclear disarmament. Primarily, NWS view their nuclear weapons from the perspective of national security and the various nuclear disarmament commitments of the NPT Review Conferences agreed upon by consensus as political with no binding effects.

The successful outcomes of the 1995 and 2000 NPT Review Conferences were not repeated in 2005 due to the failure of State parties to adopt extensive substantial measures. It was the 2000 NPT Review conference that produced the 13 practical steps towards nuclear disarmament, with an “unequivocal undertaking by the Nuclear Weapon States (NWS) to accomplish the total eliminations of their nuclear arsenals.” This unequivocal undertaking is in conformity with the obligations of the Article VI and the very first time in the history of the NPT the NWS agreed to the total eliminations of their nuclear armaments. The 2010 NPT Review Conference final document produced a 64-item action plan covering the three pillars of the NPT which are: disarmament, nuclear non-proliferation and the usage of nuclear technology for peaceful purposes.

However, the 2015 NPT Review Conference was not successful in producing an outcome final document. The contentious issues were nuclear disarmament and the deliberations on Middle East WMD-Free Zone. The Conference experienced deep division between the NWS and the NNWS on the humanitarian approach to nuclear disarmament. Besides the sharp disagreement on the disarmament discourse, convening a conference on a Middle East WMD-Free zone resulted in the 2015 NPT Review Conference not adopting a final document.¹⁰⁹⁹

Furthermore, nuclear disarmament and the emergence of the Treaty on the Prohibition of Nuclear Weapons (TPNW) are multilateral or global reality. Several attempts at negotiating legally binding multilateral nuclear disarmament treaties have proven abortive. The United Nations established the Conference on Disarmament (CD) as a mono multilateral disarmament forum in 1979. Since its establishment, the CD has

¹⁰⁹⁹ M. Patrick Cottrell, *The Evolution and Legitimacy of International Security Institutions* (Cambridge University Press, 2016) 155

negotiated the Comprehensive Nuclear Test-Ban Treaty (CTBT) in 1996, which was the only nuclear weapons legal instrument acceptably considered as a milestone towards nuclear disarmament but yet to enter into force. Expectedly, the coming into force of the TPNW 90 after the threshold of at least 50 States ratification would supersede all hitherto existing nuclear weapons treaties.

Nuclear Disarmament: Natural Law Theory as Ethical Legitimacy and Legal Positivism as Legal Determinacy

The challenges of the international circumstances surrounding nuclear disarmament in the midst of the international legal regime¹¹⁰⁰ on nuclear disarmament is enormous. Nuclear disarmament, which implies procedural reductions of nuclear weapons to total eliminations toward a state of a nuclear-free-world, has been a tremendously difficult global concern in terms of achievement as acknowledged by the United Nations.

As elucidated in **Chapter 2, Section 2.4**, 'Natural Law Theory,' natural law has three schools of thought which are: divine natural law, secular natural law, and historical natural law. Consequent upon the divisions and the interwoven views of these schools of thought, natural law is therefore consolidated into two major categories, namely: natural law of morality and natural law of legality (natural law theory of law). In its entirety, natural law theory serves as ethical legitimacy to nuclear disarmament discourse. The concepts of natural law of morality and natural law of legality imply that the universe has a divine order translated into a legal ethical framework. An ethical framework for the ultimate good of mankind and the society to live. In the view of Thomas Aquinas, natural law naturally promotes the common good of the society and negates the consequences of manmade, corrupt or bad law. Irrefutably, when divine code comes into conflict with manmade or bad law, natural law takes precedence.

As it pertains to nuclear weapons and nuclear disarmament, the humanitarian impacts and consequences surrounding the dangers of nuclear weapons, public conscience and global concerns as well as the concerted efforts of the international community through the United Nations in international conferences and multilateral fora on the possibility of achieving a nuclear-free-world for the good of mankind is an eloquent manifestation of natural law as ethical legitimacy for nuclear disarmament.

Humanity has ethical and moral norms predicated on wisdom, conscience and pragmatism. Many ethical norms have universally withstood the test of human existence and experience from time immemorial. The Principle of Reciprocity generally known as the Golden Rule characterised by the underlying factor of treat others as you which to be treated is an ethical foundational value. The responsibility and the recognition of duty of States and individuals to protect and uphold the intrinsic sacredness of life has been a fundamental characteristic of all civilised human values.

Contextually, it is inconsistent with ethical wisdom and moral norms for few States not only to possess nuclear weapons which are catastrophically destructive instruments of annihilation but also their failure to eliminate their nuclear armaments. The NWS have solemnly promised the international community to negotiate in good faith to

¹¹⁰⁰ Wade L. Huntley et al, *Nuclear Disarmament in the Twenty-first Century* (Hiroshima Peace Institute, 2004) 373

achieve nuclear disarmament by signing the NPT. Furthermore, they extended their obligations to abolish their nuclear weapons at the 1995, 2000, 2005, 2010 and 2015 NPT Review and Extension Conferences.¹¹⁰¹

Similarly, in the same **Chapter 2, section 2.5** – “Legal Positivism,” Legal positivism has been explicitly explained as a jurisprudential theory antithetical to natural law theory and deeply depicted as a theory influenced by sovereignty and the rule of law devoid of ethical or moral values. Legal positivism upholds that laws and judicial systems are made by man for man and there is no necessary connection between the law and morality or ethics, and the formation of legal precepts. Based on this stand point of legal positivism, it is therefore consequential and stands as legal determinacy to nuclear disarmament.

Nuclear disarmament has codifications in the various international weapon treaties. Raging from the NPT to the five Nuclear-Weapon-Free-Zone NWFZ Treaties, as well as the hitherto and abrogated bilateral and trilateral treaties such as the ABM Treaty, the Strategic Offensive Reductions Treaty (SORT) and the and Strategic Arms Limitation Talks (SALT), between the United States of America and Russia and between both States and the United Kingdom. These treaties prescribed the limitations and abolishment of nuclear weapons. Fundamentally, legal positivism is a legal determinacy to nuclear disarmament because it has the elements of command and compliance. Command in terms of the letter of the law and compliance on the side of the responsibility of the States.

From the foregoing, the both jurisprudential theories of Natural Law and Legal Positivism can be appropriated, interpreted and implemented in diverse ways for consequential retrospect and prospect advantages on nuclear disarmament. For example, in natural law theory it is glaring that the sovereignty primarily needs the legitimate ethical support and authority of the people. While in legal positivism, the sovereignty enforces the compliance irrespective of the merit or otherwise of the law, and in context, the international law on nuclear disarmament should not be burdened by any considerations based on morality or ethical values.

In the light of the above, it is necessary to hereby state the views of Judges Ranjeva and Weeramantry on the ethical and legal framework for addressing the issue of nuclear weapons in the Opinion of the International Court of Justice (ICJ) issued in July 8 1996.

In Judge Ranjeva’s view: *“On the great issues of mankind the requirements of positive law and of ethics make common cause, and nuclear weapons because of their destructive effects, are one such issue.”*¹¹⁰²

While the view of Judge Weeramantry goes thus: *“(E)quality of all those who are subject to a legal system is central to its integrity and legitimacy. So, it is within the body of principles constituting the Corpus of international law. Least of all can there*

¹¹⁰¹ 2005 Review Conference of the Parties to the Treaty of Non-proliferation of Nuclear Weapons (NPT) 1968, (2-27 May 2005, New York)

¹¹⁰² International Court of Justice (ICJ) Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, 8 July 1996, Opinion of Judge Ranjeva, para 105 (2) E1

be one law for the powerful and another law for the rest. No domestic system would accept such a principle, nor can any international system which premised on a concept of equality."¹¹⁰³

On the one hand, Judge Ranjeva's view purports and supports Natural Law theory as ethical legitimacy for nuclear disarmament and on the other hand, Judge Weeramatry's statement underscores the principles of Legal Positivism as legal determinacy for nuclear disarmament. The combinations of Natural Law theory and Legal Positivism is seen in the 1981 UNGA "Declaration on the Prevention of Nuclear Catastrophe", whereby the UNGA reaffirmed "that the universally accepted objective is to eliminate completely the possibility of the use of nuclear weapons through cessation of their production, followed by destruction of their stockpile..." and as a consequence, all the horrors of the past wars and calamities that have befallen people would pale in comparison with what is inherent in the uses of nuclear weapons, capable of destroying civilization on earth.¹¹⁰⁴

The Researcher's Reflective Arguments for Nuclear Disarmament

The researcher's reflective arguments for the disarmament of nuclear weapons are deducible from the aforementioned Natural Law theory and Legal Positivism theory. For the purposes of ostensible precision and specificity, the following are the arguments put forward by the researcher for nuclear weapons disarmament:

1. The destructiveness of nuclear weapons, their continuous existence, possessions, and detonations by the NWS, as well as the unbridled ambitions of some States to acquire them; is not only unethical but also a paradox of excluded middle. It is paradoxical for us humans who are rational beings and respond to sound reasons to have nuclear weapons in our world, because they are not war-winning epochal instruments. Nuclear weapons are instruments of doom, annihilation and self-destruction. Natural law which is principally the theory of the nature and need of ethical reasoning in which law is expressed as a model purport and support nuclear disarmament.
2. The various multilateral fora and efforts that culminate in international treaties on nuclear weapons and the provisions of legal instruments such as the TPNW and Article VI of the NPT is a pointer to the theory of Legal Positivism that upholds legal validity as command of the sovereign and the rule of recognition. This implies that all the legal provisions and the commendable objectives of the law in light of nuclear disarmament are indication that disarmament is a collective global aspiration and should be complied with by all States to ensure a nuclear free world.

¹¹⁰³ Ibid, Opinion of Judge Weeramantry V4

¹¹⁰⁴ United Nations General Assembly (UNGA) Declaration on the Prevention of Nuclear Catastrophe, A/36/100, December 9 1981

6.3 Research Limitations

This research which seeks to analyse the legal challenges and the political considerations associated with nuclear disarmament in international law has both theoretical and methodological limitations. Theoretically, this research does not cover any analysis on the mode of implementation, and enforcement of the provisions on nuclear non-proliferation and disarmament. Although, realising the significance of the Comprehensive Nuclear Ban Treaty as a major aspect of nuclear disarmament and non-proliferation regime, this thesis does not also cover any specific section analysing the Comprehensive Nuclear Ban Treaty on the basis that it has not entered into force.

Based on the doctrinal legal research method and the Black Letter Law approach under qualitative methodology adopted in this research, this thesis is limited to critical analysis, synthesis and the critique of legal issues involved with nuclear disarmament. As such, it does not apply the approach of the use of surveys and quantification in the collection and analysis of legal data pertaining to nuclear weapons. This research is purely qualitative in its entirety. It desists from the combination of socio-legal or empirical legal methodology and presents law as self-contained entity.

6.4 Conclusion

The seemingly slow pace on nuclear disarmament and the continuous reliance on nuclear weapons through the doctrine of nuclear deterrence and policies of national security by the NWS and other nuclear possessing States constitute a challenge for the entire discourse on nuclear disarmament. The legal rationale behind this doctoral research is predicated on the need for all States at all times to comply with applicable international law, bearing in mind that any use of nuclear weapons would be contrary to the rules of armed conflict. Specifically, the principles and rules of international humanitarian law and the gross violation of the 2002 Rome Statute of International Criminal Court.

The emergence of the Treaty on the prohibition of Nuclear Weapons (TPNW) is a potential implementation of the NPT, which stands as the cornerstone of the disarmament and non-proliferation regime, crucial for the interest of public conscience. The TPNW as the sole legally binding instrument prohibiting nuclear weapons should be ratified by all States towards the achievement and maintenance of a world free of nuclear weapons.

The aim of international law is the achievement of a public order of human dignity encapsulated in qualities cherished by man: power, wealth, entitlement, skill, well-being, affection, respect and rectitude.¹¹⁰⁵ No matter how strong the argument made for the precautionary retention or possession of nuclear weapons by the NWS and their proponents, such argument does not suffice for an ideal global order. The world is entitled to be deeply concerned about the creation of a global order in which action is based on the judgement of few individual states without the input of multilateral mechanism to ascertain more objectively the claims of lawfulness. Therefore, international law which is mostly embodied in international treaties regulates the

¹¹⁰⁵ Elli Louka, *Nuclear Weapons, Justice and the Law* (Edward Elgar Publishing, Inc., 2011) 411

conduct of the international community in all aspects and facets including nuclear weapons in their entirety.

A world free of nuclear weapons requires a global legal regime with an agreed legally binding instrument such as the TPNW. This will give all States especially the Non-Nuclear Weapon States the confidence that nuclear disarmament is durably and effectively realisable. The vision of a world devoid of nuclear weapons is seemingly becoming blurred as a result of political influences on the legal framework on nuclear disarmament and this needs to be refocussed. It is a common global interest for all States to strive to improve international security in ensuring a world without nuclear weapons in line with Article VI of the Non-Proliferation Treaty.

The vulnerabilities of risks associated with any potential use of nuclear weapons, their reliance by the Nuclear Weapon States and other nuclear possessing States for their protective and national security interests as well as their continuous existence in our world need to be taken into serious considerations. Response to the humanitarian nuclear emergencies should be included in international mitigation processes. The Conference on Disarmament and the United Nations General Assembly should expand the scope of nuclear disarmament and non-proliferation efforts to reflect the legal imperatives as well as substantial compliance.

However, the possibility of the use of nuclear weapons seems rare, but no nation can consider itself free from the potential consequences of nuclear weapons detonations and their impact on human development. Providentially, the Treaty on the Prohibition of Nuclear Weapons (TPNW) has addressed the existential gap in the treaty law for total and complete prohibition of nuclear weapons. Progress on nuclear disarmament should be made by all States, especially the States known for possessing nuclear weapons by signing and ratifying the TPNW.

In the light of the unacceptable humanitarian consequences and the associated risks of nuclear weapons, the Humanitarian Pledge stimulating the fact-based humanitarian and legal analyses as imperatives for nuclear disarmament, would ensure global human security and promote the protection of the natural environment against the calamitous destructions stemming from nuclear weapons. Leaving nuclear disarmament obligations unfulfilled, would have serious implications on the implementation of international law. Nuclear weapons disarmament legal frameworks are fundamentally intertwined with multilateralism that require States full cooperations.

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