

**APPRAISAL OF THE INTERNATIONAL LEGAL FRAMEWORK FOR THE
ELIMINATION OF NUCLEAR WEAPONS AND ITS IMPLICATIONS FOR WORLD
PEACE AND SECURITY**

By

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DECLARATION

I declare that the work in this Dissertation entitled: **An Appraisal of the International Legal Framework for the Elimination of Nuclear Weapons and its Implications for World Peace and Security** has been carried out by me in the Department of Public Law. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

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This Dissertation entitled **An Appraisal of the International Legal Framework for the Elimination of Nuclear Weapons and Its Implications for World Peace and Security** by Fatima ALKALI meets the regulations governing the award of the degree of Doctor of Philosophy in Law of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This work is dedicated to my beloved late Father, Professor Muhammad Nur Alkali, who has supported me at every stage of my life in so many ways....

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ABSTRACT

It is in the security interests of states to live in a peaceful and secure world. The pursuit of peace and security is, consequently, the desire of all states and often this finds place in their domestic policies. One of the ways in which states of the international community have sought to protect their security interests is by seeking military superiority over others and this invariably leads to conflict of interests among them. In the quest for global hegemony and military superiority, the United States of America and the Former Soviet Union in the mid-1940s developed the most destructive explosive device ever, the nuclear weapon and immediately commenced a nuclear arms race which motivated other states of the international community, United Kingdom, France and China, to produce their own nuclear weapons before 1968. In 1968, these five states sought to prevent the proliferation of nuclear weapons among other states of the international community and accordingly set a framework for the non-proliferation of nuclear weapons with the stated intent of eventual elimination of these weapons. The most significant treaty in this framework came into effect in 1970. The Dissertation is an appraisal of the body of laws that constitute the international legal framework for the elimination of nuclear weapons and the implications of such elimination for world peace and security. The research problem that the work confronts is the failure of the international community to achieve the elimination of nuclear weapons despite the existence, since 1970, of a legal regime for that purpose. The security of the world is currently jeopardized by the proliferation of terrorist networks globally. If nuclear weapons are not completely eliminated and their means of production effectively blocked, terrorist groups could eventually gain control of them and use them to destroy the world. The primary objective of the dissertation is, accordingly, to examine the existing legal framework for the elimination of nuclear weapons with the ultimate aim of contributing solutions to nuclear weapons elimination. The research scope specifically covers the laws and policies of the nine nuclear weapon states; U.S.A, Russia, China, U.K, France, India, Pakistan, North Korea and Israel. The subject is, however, generally examined under the framework of international law and policy. The dissertation makes three significant findings; foremost, that the laws which constitute the international legal framework for the elimination of nuclear weapons are inadequate to achieve the goal of elimination, secondly, that a significant obstacle to the realization of the extant nuclear weapons law is the inefficiency of the enforcement mechanism of the law, thirdly, that the elimination of nuclear weapons is embroiled in power politics and therefore very difficult to achieve. Based on the findings, the dissertation recommends that a specialized agency be established under the United Nations for the sole purpose of elimination of nuclear weapons. It also recommends that international pressure should be intensified for the adoption of the proposed nuclear weapons convention as the substantive law on nuclear weapons elimination.

ABBREVIATIONS

CTBT	Comprehensive Test Ban Treaty
CTBTO	Comprehensive Test Ben Treaty Organization
EIF	Entry-Into-Force
EMP	Electromagnetic Pulse
EU	European Union
FMCT	Fissile Materials Cut-Off Treaty
GRACE	Global Resource Action Center For The Environment
HEU	Highly Enriched Uranium
IAEA	International Atomic Energy Agency
IAEC	Israeli Atomic Energy Commission
ICAN	International Campaign To Abolish Nuclear Weapons
ICJ	International Court Of Justice
ICRC	International Committee of the Red Cross
IHL	International Humanitarian Law
ILC	International Law Commission
IRGC	Iran Revolutionary Guard Corps
ITDB	Illicit Trafficking Database
LEP	Life Extension Program
LEU	Low Enriched Uranium

MNWC.....Model Nuclear Weapons Convention
MNF.....Multinational Force
NAM.....Non-Aligned Movement
NATO.....North Atlantic Treaty Organization
NEPAD.....New Partnership for Africa’s Development
NNWS.....Non-Nuclear Weapon States
NPT.....Non-Proliferation Treaty
NWFZ.....Nuclear Weapon Free Zone
NWS.....Nuclear Weapon States
PLO.....Palestinian Liberation Organization
REVCON.....Review Conference
SORT.....Strategic Offensive Reduction Treaty
SSP.....Stockpile Stewardship Program
START.....Strategic Arms Reduction Treaty
UK.....United Kingdom
UN.....United Nations
UKNI.....United Kingdom and Norway Initiative
UNO.....United Nations Organization
UNDC.....United Nations Disarmament Commission
UNICEF.....United Nations Children Education Fund
UNGASS.....United Nations General Assembly
UNODA.....United Nations Office Of Disarmament Affairs
UNSC.....United Nations Security Council
UNSCOM.....United Nations Special Commission

USA.....United States of America

USSR.....United Socialist Soviet Republic

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CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the Research

From the dawn of time humankind has manufactured military weapons to aid them in armed conflicts with one another. The world has progressively witnessed the changing pattern of warfare, from close-range engagements with small weapons to remote exchanges with evolved weapons of mass destruction. Historians have traced the earliest weapons used in warfare to wooden clubs, sharpened sticks and stones. With the passage of time, military weapons evolved to bows and arrows, swords, catapults, ballistas, maces and lances, to guns and rockets. Advancements in technology prompted scientists to go as far as the manipulation of chemical substances and biological species to manufacture chemical and bacteriological weapons for use as weapons of mass and indiscriminate destruction. These were used in the bloodiest war ever fought in the world, World War 1.

In 1945 during the Second World War a rare and strange catastrophe shook the very roots of a great empire. The Japanese cities of Hiroshima and Nagasaki crumbled to ashes under attack from the United States of America with a new destructive weapon called the 'atomic bomb' and more popularly known as the 'nuclear bomb'. The U.S.A had then only recently manufactured the atomic bomb and had become the first state of the international community to produce the specie of weaponry that would influence and dictate the interactions between states to the present time.

Nuclear weapons are weapons of mass destruction, which if used, will cause unfathomable destructive effects on human beings and the natural environment. Analysts have projected the effects of a major nuclear exchange to result in the death of millions of civilians within a very short period of time.

They have also projected that a full-scale nuclear war could bring about the extinction of the human race or its near extinction with a handful of survivors.

When the United States of America used its first nuclear bombs on Hiroshima and Nagasaki during World War 2 in 1945, it did so as an attempt to compel the Japanese empire to surrender. The devastating effects of the attack raised concern in the world about the implication of states' possession of nuclear weapons, to world peace and security. Furthermore, the production, storage and testing of nuclear weapons have produced harmful effects on human beings and affected environments since the first nuclear weapons were produced in 1945.

The acquisition of nuclear weapons was originally part of the defence strategies of the United States and the former Soviet Union against each other. When more states began to acquire nuclear weapons, concern about international security manifested in a call by non-nuclear weapon states for a total ban on nuclear weapons production and possession. Consequently, the nuclear anti-proliferation and disarmament regime was launched in 1970 when the Nuclear Non-Proliferation Treaty of 1968, came into force.

The Non-Proliferation Treaty's primary objectives are to hinder the proliferation of nuclear weapons by states and secondly, to completely eliminate existing weapons through disarmament. Although universally ratified except for four countries, the treaty has survived four decades without fulfilling the purpose for which it was made. Other treaties, both bilateral and multilateral have come into force after the NPT, seeking to limit nuclear weapons production through various means like test-ban and declaration of nuclear-free-zones and thereby forming part of the legal framework for nuclear weapons elimination. However, progress towards elimination has been very slow and it is being overtaken by disturbing developments in the international scene, which require urgent, viable solutions.

One of the foremost areas of concern in the nuclear context is the current trend in proliferation and the consequent international tension. Two non-party states to the NPT, India and Pakistan, have since launched their nuclear weapons program and investigations have revealed their ongoing participation in aiding some state parties to the treaty, to secretly develop their own nuclear weapons program. More than any other state party to the NPT, Iran has been accused of secretly diverting its nuclear materials from peaceful to military uses. For several years the United States of America has accused Iran of enriching its capabilities to develop nuclear weapons. Although Iran has consistently denied the allegation, the International Atomic Energy Agency in November 2011 released a trove of evidence they said made a “credible case” that “Iran had carried out activities relevant to the development of a nuclear device.” Iran had received series of economic sanctions from the United Nations Security Council, the European Union, U.S.A and seven other states of the international community. In June 2010, U.S.A imposed harsh sanctions on Iran, whereby it prohibited any American business or individual and American allied companies from trading with blacklisted individuals accused of helping Iran develop its nuclear program. The U.S.A later in the year intensified its sanctions, targeting the country’s elite Revolutionary Guard Force and energy and shipping sectors. This was following the imposition of punitive measures against Tehran by the UN, U.S.A and EU, in a bid to stop its uranium enrichment program. By the onset of 2012, concerns about an impending nuclear war between Israel and Iran loomed largely over the world. To strengthen its resolve to prevent Iran from developing nuclear weapons, U.S.A took significant steps to cut Iran off from the international financial system, announcing coordinated sanctions aimed at its Central Bank and commercial banks. The mutual rhetoric of nuclear attack between Israel and Iran intensified in 2013 along with the imposition of sanctions.

Another manifestation of international tension related to nuclear weapons is the crisis in the Korean peninsula, which has amounted to concerns that the Korean peninsula is on the brink of nuclear conflict.

North Korea, which withdrew from the NPT in 2003 and launched its own nuclear weapons program soon thereafter has been the target of UN. and U.S. pressure to disarm. Pyongyang has officially confirmed the broadening of its nuclear program, saying that there are several thousand working centrifuges at its uranium enrichment plant in Yongbyon. This has raised concerns, with North Korea being in conflict with South Korea. There is a growing fear of the probability of an outbreak of hostilities on the Korean peninsula and the danger of a local nuclear conflict there as long as North Korea continues to possess nuclear weapons. The United States of America is allied with South Korea and they are cooperating to counter North Korea's program for the development of missiles and weapons of mass destruction. This means that U.S.A can supply not only conventional strike and missile weapons to South Korea, but also tactical and strategic nuclear depth charges to help protect itself from North Korea. On December 13, 2010, North Korea threatened that the South Korean's live fire exercises along its coastline would lead to nuclear war. In February 2013, North Korea carried out a nuclear test and warned that it was going to target its nuclear weapons in an attack against the United States of America.

Another cause of concern over nuclear weapons is the deepening probability of nuclear terrorism, that is, the likelihood that nuclear armaments will eventually come into the hands of non-state actors, namely, terrorist groups and those groups using the weapons in indiscriminate attacks or even suicide attacks. On September 11, 2001, terrorists hijacked four commercial planes in the U.S.A and attempted to fly them into several targets. Two successfully crashed into the Twin Towers of the World Trade Center in New York City, killing about 3000 people. That incident raised the consciousness of the world regarding the rising phenomenon of terrorism. With their destructive and indiscriminate potential, nuclear weapons under the control of terrorist groups will invariably pose the greatest threat ever to world peace and security. Nuclear terrorism can be an attack on a nuclear power plant or it may involve

the theft of a tactical nuclear weapon by non-state actors, and its detonation on innocent unsuspecting civilians.

Notwithstanding all the problems associated with the possession and proliferation of nuclear weapons and the commitment professed by states to the realization of a nuclear weapons-free world, nuclear weapon states still hold on to their weapons and assert the validity thereof on the strength of the doctrine of nuclear deterrence. The doctrine of nuclear deterrence stipulates that nuclear weapons are essential to deter states from embarking on warfare. Because of their known destructive effects, states holding nuclear weapons, or under the protection of such states seek to discourage military aggression by demonstrating that it would be pointless, since it might lead to the use of nuclear weapons in war, which will result in the destruction of all parties involved. The nuclear deterrence doctrine, therefore, singularly maintains the validity of the possession of nuclear weapons by states. There is thus a split opinion for and against the possession of nuclear weapons held by nuclear weapon states and their allies on one hand, and non-nuclear weapon and non-aligned states, on the other.

The fact that nuclear disarmament is slow and unpromising is a problem for non nuclear weapon states that have signed the Non-Proliferation Treaty, as well as treaties that declared their regions 'nuclear-weapon-free zones.' These states have given up their rights to produce and possess nuclear weapons. Although nuclear weapon states have given a reciprocal undertaking not to attack any non-nuclear weapon state party to those treaties, if for any reason nuclear weapon states violate their undertaking and attack non-nuclear armed states, the latter would be completely at the mercy of the nuclear superior states. This is because non-nuclear weapon states do not have equivalent weapons to deter or scare away a potential nuclear threat.

Africa is one of the regions of the world that has declared itself a nuclear weapon free zone and all African countries have signed and ratified or acceded to the Non-Proliferation Treaty. In the 4th meeting

of the First Committee of the 67th General Assembly session in New York on 10th October 2012, the representative of Nigeria at the session, Usman Sarki, expressed the concern of the Nigerian delegation about the lack of progress in nuclear disarmament. The Delegation's position was thus:

Nigeria reaffirmed its belief that nuclear weapons were the ultimate weapons of mass destruction and that their total elimination should be the final objective of all disarmament processes in the United Nations. Nuclear weapons offered no credible defence against other enemies possessing similar weapons, but they posed an existential threat to those who did not possess them...

Conclusively, the existing legal framework for the elimination of nuclear weapons which has subsisted for four decades has proven to be inadequate. The most significant treaty of the framework, the NPT, has some inherent structural weaknesses, which contribute to impeding its successful implementation and it does not proffer solutions to the new developments challenging world peace and security.

1.2 Statement of the Problem

Nuclear weapons are the most destructive explosive devices ever produced on earth. All the processes involved in the production, storage and testing of nuclear weapons have harmful effects on human beings and the natural environment while the explosion of nuclear weapons in a major nuclear exchange has the potential effect of destroying the whole world.

Presently nine states of the international community possess and maintain nuclear weapons in their military arsenal as part of their defence policy. Although a legal framework for non-proliferation and elimination of nuclear weapons has been in existence since 1970, nuclear weapon states have refused to

commit to disarmament, which has resulted in international tension between them and the non-nuclear weapon states.

Nuclear weapon states maintain their weapons upon the doctrine of nuclear deterrence which validates the possession of nuclear weapons for the preservation of world peace and security, yet the security of the world is jeopardized by the proliferation of terrorist networks globally. If nuclear weapons are not completely eliminated and their means of production effectively blocked, terrorist groups could eventually gain control of them and use them in attacks that could lead to the destruction of the entire human race and the ecosystem of the planet. The foregoing, therefore, raised the following research questions:

- i. whether the existing legal framework for the elimination of nuclear weapons is adequate
- ii. whether the application of the existing legal framework contributes to world peace and security
- iii. whether the doctrine of nuclear deterrence is significant to the preservation of world peace and security, or it constitutes an obstacle to it.

1.3 Aims and Objectives of the Research

The research aimed at identifying and examining the problems caused by the proliferation of nuclear weapons in the world and the difficulties involved in eliminating them. This is in order to contribute solutions to nuclear disarmament and and profer recommendations for a more effective enforcement regime for nuclear weapons elimination. The objectives of the dissertation are:

- i. To examine the existing legal framework for the elimination of nuclear weapons and its application.
- ii. To establish findings on the significance of the doctrine of nuclear deterrence to world peace and security.

1.4 Scope of the Research

The research topic is grounded predominantly in international law. World peace and security is a concept relevant to international law and the body primarily responsible for the maintenance of world peace and security is the United Nations Organization. Accordingly, the topic was examined primarily under the framework of international law and policy. The theme of nuclear weapons affects the entire human race and is not confined to any or specific geographical regions, therefore, the geographical coverage of the topic is the whole world. The dissertation, however, specifically focused on the laws, policies and practices of the nuclear armed states, namely, the United States of America, Russia, Britain, China, France, India, Pakistan, Israel and North Korea.

1.5 Research Methodology

The research method used for this dissertation is doctrinal. The materials used for the research are classified into two major sources: primary and secondary sources. The primary sources consist of international treaties and judicial interpretations of those treaties, laws and polies of states. The secondary sources of data consist of journal articles, textbook material, workshop, seminar and conference papers.

The library and internet were the primary means of research. Book and journal subscriptions also featured as means of obtaining recent data. The facilities of the JSTOR website have also been thoroughly utilized.

1.6 Literature Review

The debate on whether or not nuclear weapons should be eliminated completely from the world has been divided into two opinions. One opinion states that nuclear weapons are necessary for the purpose of deterrence. This opinion is held mainly by the nuclear superpowers and their allies. The other states that nuclear weapons pose a fundamental threat to world peace and security and so should be completely eliminated. The bulk of the literature on nuclear weapons is centered on this controversy.

Making a case for the sustenance and spread of nuclear weapons, **Kenneth Waltz** argues that the world has enjoyed more years of peace since World War II for two reasons. One reason is the shift from multipolarity to bipolarity and the other is the introduction of nuclear weapons. Defining peace as the absence of general war among the major states of the world, Waltz asserts that the introduction of nuclear weapons has had a significant effect in maintaining general peace in the world. His thesis is that nuclear weapons have been the second force working for peace in the post-war world because they make the cost of war frighteningly high and thus discourage states from starting any wars that might lead to the use of such weapons. Nuclear weapons have helped maintain peace between the great powers and have not led their other possessors into military adventures.

Waltz regards the fear over the spread of nuclear weapons with derision. He states that much of the writing about the spread of nuclear weapons tells that what did not happen in the past is likely to happen in the future, that tomorrow's nuclear states are likely to do to one another what today's nuclear states have not done. He concludes that a happy nuclear past leads many to expect an unhappy nuclear future and he calls this line of reasoning an oddity. According to him, states go to war for one of four reasons, offence, defence, deterrence or coercion. His thesis, like the thesis of his pro-nuclear peers is based on the deterrence ideal. With unusual confidence he maintains that nuclear weapons will be used only for the purpose of deterrence, which goes to say that they would never be actually used to cause the state of Armageddon feared by all. However, their mere existence in the possession of states would deter other

states from embarking on offensive or coercive actions because of the fear that the possessing states would be pushed to nuclear warfare in self-defence. He explains that according to the deterrence ideal, one should expect war to become less likely when weaponry is such as to make conquest more difficult, to discourage pre-emptive and preventive war and to make coercive threats less credible.

Furthermore, the likelihood of war decreases as deterrent and defensive capabilities increase. Whatever the number of nuclear states, a nuclear world is tolerable if those states are able to send convincing deterrent messages: It is useless to attempt to conquer because you will be severely punished. A nuclear world becomes even more tolerable if states are able to send convincing defensive messages: It is useless to attempt to conquer because you cannot. Nuclear weapons and an appropriate doctrine for their use may make it possible to approach the defensive-deterrent ideal, a condition that would cause the chances of war to dwindle.

However, despite his passionate advocacy for the spread of nuclear weapons in furtherance of the deterrence ideal, Waltz himself acknowledges that no one can say that nuclear weapons will never be used. Their use, he admits, although unlikely, is always possible. He however finds justification for his thesis in the balance between the remote possibility that states may engage in nuclear warfare and the historical fact that the presence of nuclear weapons makes wars less likely. He qualifies his argument by saying that one may nevertheless oppose the spread of nuclear weapons on the ground that they would make war, however unlikely, unbearably intense should it occur. But even to that he defends with another argument that nuclear weapons have not been fired in anger in a world in which more than one country has them, that the world has enjoyed three decades of nuclear peace and may enjoy many more.

Although his argument in defence of the deterrence-ideal is passionate, the bulk of Waltz's literature is grounded in conjecture. While he relies substantially on history to justify the non-likely use of nuclear weapons by states, the rest of his thesis relies on the fear of mutually assured destruction by states to

ensure that they do not contemplate the use of such weapons. However, his thesis has failed to address the fact that there is no framework within which the international community may effectively deal with a flagrant abuse of the deterrence mechanism in circumstances where a state actually uses its nuclear weapons to the general detriment of mankind. This is despite his admission that the possibility of nuclear warfare though remote, still exists. Furthermore, Waltz seems to base the whole of his thesis on the possession of nuclear weapons by states and did not address the possibility and consequences of the possession of the weapons by non-state actors like terrorist groups. This however, could be attributed to the fact that he was writing at a time when terrorist attacks were not prevalent.

In the contemporary world, the phenomenon of terrorism has become a predominant concern to the international community. The rate at which terrorism is growing raises concerns of the catastrophes that could occur when terrorist groups gain control over nuclear weapons. This concern was reflected by

Aliyu Mukhtar Katsina thus:

With the rather abrupt way the Cold War was brought to an end, a new force emerges in international arena. That is terrorism. Today, the power and impact of terrorism defies the sheer force of military. The September 9/11 attacks on USA confirm this suspicion and bring to light the embarrassing limitations of the conventional security theories in national defence. Notwithstanding her regulation as the greatest economic, industrial, technological and military power, agents of terrorism invaded US and wrought dangerous havoc in her own turf. With the passage of the Cold War, terrorism becomes a strong force in international politics.

In his thesis, Katsina raises concern over the position of states with weaker economies and military strength, and particularly his own country, Nigeria. He regards the concept of deterrence from a holistic perspective, as an idea of economic development and integration, excellent infrastructure,

industrialization and superior technology, in relation to the immediate source of threats. He, however, observes sadly that Nigeria of the 21st century possesses none of the above.

Katsina's observation is significant in that no African state possesses nuclear weapons; hence the whole doctrine of deterrence has no positive implication for the African continent. On the contrary, the sustenance of nuclear weapons by nuclear armed states keeps the less economically and technologically advanced, militarily inferior African states in a position of weakness. This reason alone makes the anti-nuclear movement relevant to Africa. This was aptly captured by **Okwori, A.S.** thus:

The understanding has been that massive acquisition of lethal weapons forms the basis for effective manipulation aimed at removing the war option from the strategic calculations of potential adversaries, although such acquired weapons of mass destruction could be used but only as a last resort. Global changes however call for a change or shift in the interpretation of the concepts of security and deterrence of African states.

Donald Whitmore presents several challenges to the deterrence theory, including the fact that the deterrence theory ignores the possession of nuclear weapons by non-state actors. Whitmore regards the whole deterrence theory as fallacious. Observing that the threat underlying nuclear deterrence is that aggressive acts will be answered by nuclear weapons retaliation, he reasons that if that threat lacks credibility, then deterrence is at least uncertain and perhaps impotent or inoperative. In a very realistic analysis he regards that a major flaw in the deterrent strategy is what deterrence theorists call 'self-deterrence'. The problem is that retaliatory threats lack credibility when risks to homeland survival are great (the expected case in nuclear war). Threats of nuclear retaliation can have a hollow ring if it is believed actual retaliation would be self-deterred by fears of national survival. Also, empty threats have no security value or can be even counterproductive.

According to his argument, nuclear weapons threat lacks the ability to support both conventional attack deterrence and nuclear attack deterrence. In the former, it appears to be weakly argued that

nuclear weapons can deter conventional military action by lesser powers – when modern conventional weapons hit targets precisely and overwhelm most opponents. As for nuclear attack deterrence, he contends that the practical value of nuclear arsenals in deterring nuclear attack from a potential aggressor is highly questionable since an alleged retaliation threat (which underlies deterrence) might not be convincing due to the self-deterrence factor.

A weakness of many a deterrence theory is the failure to address the issue of nuclear weapons' possession by non-state actors. Pro-nuclear weapons literature is largely devoid of such consideration. On the other hand, anti-nuclear weapons literature cites it as a fundamental threat to the preservation of world peace and security. Whitmore, for example, explicitly asserts that international security is in fact degraded by continued reliance on nuclear arsenals, for example, increased risk exposure to terrorist procurement of weapon ingredients and “have/have not” dichotomy impacts which compromise the nonproliferation regime (including the Non-proliferation Treaty). On this point he concludes that nuclear deterrence to ward-off a nuclear threat does not have convincing mission utility or strategic value.

Furthermore, even regarding state actors, Whitmore does not confer much integrity in the handling of the nuclear issue. While Waltz's thesis confers absolute rationality on state actors, as a safeguard towards deterrence, Whitmore rejects the expectation that the deterred party in a deterrence scenario will always be wise, rational and prudent in its decision-making. Such an expectation, according to him, can lead to the belief that deterrence will not fail, yet that could be misleading and dangerous in a situation of rapidly escalating tensions. That expectation could produce miscalculations resulting in catastrophe. He explains that it should be expected that decision-making on the brink of nuclear war would be in a high-stress, emotionally-charged environment not conducive to cool-headed, rational thinking.

In fact, in a way that presents a paradox to Waltz's deterrence-ideal, Whitmore asserts that nuclear arsenals can even have the opposite psychological effect of removing inhibitions to aggression, as

opposed to inhibiting aggressive acts. He reasons that aggressive acts can be committed with relative impunity because an opponent will refrain from a military response that might escalate to hostilities, which invite nuclear disaster. He concludes, therefore, that practical reliance on nuclear arsenals for valid protection is more a matter of fantasy than of reality.

Professor Powell approaches the nuclear issue in a slightly different way from taking a clear-cut position on the desirability or otherwise of nuclear weapons. While acknowledging the potent destructive consequences of nuclear weapons, he argues for the relevance of the nuclear deterrence theory in the post Cold-War era. Powell argues that nuclear deterrence theory remains relevant and it implies that the risk of states using nuclear weapons depends on two key factors being present at the same time. The first is a severe conflict of interest; the second is the uncertainty about the balance of resolve between the states; that is, about which state is willing to run the higher risk in order to prevail. While the importance of the first factor is widely appreciated and understood, the importance of the second is not.

Powell describes the role of nuclear weapons in political conflicts as changing the strategic setting in which those conflicts play out, rather than eliminating them. Although not completely eliminating conflict, the risk of events spinning out of control transforms crisis between nuclear-armed states into a kind of brinkmanship. In a brinkmanship crisis, each state tries to induce the other to back down by taking steps that raise the risk that events will go out of control. Although states may be very reticent to raise the risk, they may be still more reluctant to back down. Throughout a brinkmanship crisis, each state faces a series of terrible choices. It can quit, or it can decide to hang on a little longer and accept a somewhat greater risk in the hope that its adversary will find the situation too dangerous and back down. If neither state backs down, the crisis goes on with each state effectively bidding up the risk until one eventually finds the risk too high and backs down or until events actually do spiral out of control.

Although he draws a conclusion that Brinkmanship crises are crises of resolve, not of relative military strength, Powell's admission that a failure of resolve may give way to events actually spiraling out of control makes the deterrence theory appear very volatile. The peace and security of the world in nuclear context in fact rests upon the supposition that in political conflicts between nuclear-armed states, one would eventually back down in fear of a major nuclear disaster. In the same vein with Waltz, the deterrence rhetoric rests upon the expectation of 'fear.' Accordingly, Powell frankly admits that the nuclear deterrence theory remains a useful compass with which to navigate the future but the answers it provides are not comforting. The balance of resolve between nuclear states over critical issues is likely to be opaque, and this increases the risk of escalation and use of nuclear weapons.

On the credibility of the nuclear deterrence argument, **Hans Kristensen** points to the fact that although NATO officials claim that the weapons are deterrent to war, that theory has been disproved by the outbreak of the conflict in Bosnia and Herzegovina. Kristensen's thesis reveals that the U.S has deployed nuclear weapons in Europe against the threat of a Soviet invasion during the Cold War. The threat ended more than a decade ago but U.S. has not withdrawn its weapons from Europe. He observes the contradictory stance of the U.S, stating that at a time when both Europe and the United States are engaged in high-profile diplomatic non-proliferation efforts around the world to promote and enforce non-proliferation of nuclear weapons, deploying hundreds of such weapons in non-nuclear NATO countries and training the air forces of non-nuclear NATO countries – in peacetime – to deliver these weapons in times of war, is at cross purposes with an effective non-proliferation message.

Kristensen asserts significantly that all of the non-nuclear NATO countries that host nuclear weapons on their territory (e.g. Belgium, Germany and Turkey) have signed a treaty, under which they pledged not to receive the transfer of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly. Likewise, U.S. has committed itself not

to transfer to any recipient whatsoever, nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly or indirectly. He concludes that NATO's contradictory non-proliferation policy of providing non-nuclear NATO countries with the capability to deliver nuclear weapons in wartime, while insisting that other non-nuclear countries must not pursue nuclear weapons capability, reveals a deeply incoherent vision for nuclear security in the 21st century.

It is significant to note that the nuclear weapons issue in the Cold-War era did not enjoy the sensitivity of the present Post-Cold-War era. Hence while the nuclear powers and their allies in the Post-Cold-War era maintain the view of the impossibility of nuclear warfare under the doctrine of mutually assured destruction, Cold-War nuclear weapons' literature reflects genuine contemplation of nuclear weapons utilization for the attainment of military victory. Writing in 1986, **A.A Sidorenko** stated that the principle of the employment of nuclear weapons in combination with other means of destruction follows from the fact that it is impossible to destroy all varied objectives on the battlefield with nuclear weapons alone. It is believed that nuclear weapons, as the main means of destruction, will be employed only for the destruction of the most important objectives; all other targets are neutralized and destroyed by the artillery, aviation and fire of tanks and other weapons. In other words, nuclear weapons are employed in combination with other means in accordance with the concept of the battle.

However, this is not to suggest that the nuclear deterrence theory was not popular at the time. It will, therefore, be correct to establish that Cold-War era literature reflects the position that concern about the safety of the world from the effects of nuclear weapons was not of primary priority to the nuclear super powers. While deterrence was a relevant strategy for curtailing the incidents of conventional war, there was still contemplation that the use of nuclear weapons would be resorted to if deterrence failed. Hence both deterrence and use of nuclear weapons were ingrained components of war strategies. Present Post

Cold-War literature however indicates absolute aversion to the use of nuclear weapons, as well as the belief by the nuclear powers, of the impossibility of the use of the weapons.

1.6.1 Review of Literature on the Advisory Opinion of the International Court of Justice, on Nuclear Weapons.

In 1996, the International Court of Justice (ICJ) delivered an Advisory Opinion on the legality of the threat or use of nuclear weapons in response to a request made to it by the United Nations General Assembly. The opinion, regarded as controversial in legal circles, has attracted a lot of analysis from international law scholars of which the literature would be examined forthwith.

The *nexus* between the opinion and the issue of the possession of nuclear weapons *vis.-a-vis.* world peace and security lies in the fact that a pronouncement by the Court, declaring the illegality of the threat or use of nuclear weapons, would ultimately resolve to a large extent the issue of possession, for that which use is illegal should not be possessed. Such judicial pronouncement would further create a platform for a precise treaty on the total ban on nuclear weapons. A pronouncement on its legality on the other hand, should form a basis for a cogent framework for possession.

The General Assembly put the question forth: “Is the threat or use of nuclear weapons in any circumstances permitted under international law?” Among other findings, the Court found that in the last two decades a great many negotiations have been concluded regarding nuclear weapons; they have not resulted in a treaty of general prohibition of the same kind as for bacteriological and chemical weapons. However, a number of specific treaties have been concluded in order to limit the acquisition, manufacture and possession of nuclear weapons, the deployment and testing thereof.

In the main, the court held that there is in neither customary nor conventional international law any specific authorization of the threat or use of nuclear weapons or any comprehensive and universal

prohibition of the threat or use of nuclear weapons as such. It held further, 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 of international humanitarian law. It concluded, however, that in view of the current state of international law and of the elements of fact at its disposal, it could not conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence in which the very survival of a state would be at stake.

Timothy Mc Cormack states explicitly that the Advisory Opinion was a somewhat disappointing, if not entirely unexpected decision. He reasons that international law had traditionally distinguished between the law regulating the legitimate resort to force (*jus ad bellum*) and the law regulating the actual deployment of force (*jus in bello*). Any legitimate exercise of force must be consistent with both sets of principles. The Opinion, however, confuses the *jus ad bellum* with the *jus in bello* since the majority of the court declared a non-finding (*non-liquet*). While noting that the decision was a split decision of the court, Mc Cormack concludes that the fact that the majority qualified its ruling on the illegality of the threat or use of nuclear weapons by referring to an ‘extreme circumstance of self-defence’ rather than arguing, for example, that such threat or use may not necessarily be inconsistent with the *jus in bello*, was both a surprise and a disappointment.

In his analysis Mc Cormack confronts the opinion of the court from the normative significance of the Nuclear Non-Proliferation Treaty (NPT), arguing that the court generally overlooked this. He explains that the NPT is the key multi-lateral treaty dealing specifically with nuclear weapons. The primary objective of the treaty is to prevent the proliferation of nuclear weapons, particularly horizontal proliferation. The NPT allows for the continued possession of nuclear weapons by the five states declared to be the nuclear-weapon possessors at the time the treaty was concluded; but it is arguable that this is only an interim measure pending agreement between those states, on complete nuclear

disarmament. He observes importantly that the lack of a nuclear weapons convention incorporating a comprehensive prohibition on possession and use of nuclear weapons makes it difficult to contend that all possession of nuclear weapons is prohibited. Any attempt to eliminate nuclear weapons entirely will necessarily involve the negotiation of a treaty regime with specific provisions relating to the destruction of stocks, verification of compliance and continued peaceful uses of nuclear energy. However, the lack of such an instrument does not justify the ICJ's willingness to overlook the significance of the existing NPT regime as it relates to the use of nuclear weapons.

In essence Mc Cormack's argument points to the discriminatory nature of the court's opinion *vis-à-vis* the NPT. The significance of the NPT is that it allows for the continued existence of nuclear weapons in the hands of five states (coincidentally the permanent members of the Security Council) while it prohibits the extension of these weapons to any other state. By creating a possible exception where the use of the weapons may be permitted in 'extreme circumstances of self-defence,' it creates an approval of continued possession in the hands of these exclusive five states, as well as the states which have failed to become party to the NPT.

Without explicitly saying so, he concludes, the majority of the court found, in effect, that the five nuclear states, plus those states which have steadfastly refused to become party to the NPT, were in the privileged position of possibly being permitted to use nuclear weapons in self-defence, while all other states – because of their obligation pursuant to the NPT – were not.

In a very interesting analysis **Luigi Condorelli** asserts that the mere fact that, for whatever reason, the court did not decide that nuclear weapons are always forbidden implies that those who held them to be illegal have been totally defeated. They did not get what they wanted, that is, a ruling by the court that the nuclear powers are not in any circumstances entitled to use the weapon they possess, and *vice versa*. The very fact that the court did not rule that the threat or use of nuclear weapons is prohibited in

all circumstances means that those who hold them to be legal – mainly the nuclear super powers – triumphed. Their dearest wish (that their policy of nuclear deterrence should not be labeled *hic et nunc illegal*) was granted to the full. In other words, Condorelli believes that the court did not give a *non-liquet* as such, but actually took a decision which tilted in favor of the pro-nuclear proponents. She states that anyone who believes that the court did not really answer the question put to it is deceived by appearances.

Condorelli also expresses surprise that the court, although recognizing that the destructive power of nuclear weapons cannot be contained in either space or time and that they have the potential to destroy all civilization and the entire ecosystem of the planet, gave the key role in its reasoning to “the fundamental right of every state to survival, and thus its right to resort to self-defence when its survival is at stake.” It would at any rate seem curious that a world court should consider itself compelled by the law to reach the conclusion that a state has the legal right, even in limited circumstances, to put the planet to death. She concludes emphatically that if the situation is really as described by the court, the only possible conclusion is that the international legal order is remarkably self-contradictory, ill-conceived and open to criticism.

In his assessment of the Opinion, **Eric David** scorns the reasoning of the court in refusing to treat nuclear weapons as poisoned weapons and accordingly prohibiting them in all circumstances. He asserts that the court’s refusal to place nuclear weapons in the same category as chemical or poisoned weapons has no logical justification. He makes an analogical reasoning that maintaining that nuclear weapons are not like chemical weapons because they also produce a blast and heat is tantamount to stating that if one merely adds explosives to a chemical weapon it is no longer chemical, or even that if one combines legal effects with the illegal effects of a weapon, it is no longer illegal.

Like Condorelli, David questions the reasoning of the court in making an exception to the use of nuclear weapons in self-defence. He asks how, after finding that the use of nuclear weapons might bring about the annihilation of mankind, can the court go on to wonder whether the survival of a state under attack might justify the use of a weapon, which could lead to the destruction of its user. For its legal implication, David opines that the decision of the court should have no legal implications whatever; first, because it is based on dubious considerations and secondly because the court did not fulfill its juridical function of stating the law when it says that it does not know the state of the law in a given hypothesis. In other words, the fact that the decision resulted in a *non liquet* means it goes to no effect.

Perhaps of all the analyses herein examined that of **Hisakazu Fujita** touches most directly on the inherent contradictions in the opinion. Fujita's analysis, compared to other literature, bears absolutely no hypocrisy with regard to the importance of international humanitarian law in deciding whether the use or threat of nuclear weapons is illegal or otherwise. Analyzing the controversial exception of the use of nuclear weapons based on 'self-defence', he states that it appears *prima facie* that humanitarian law should apply to all categories of international armed conflict, and therefore also to those in which self-defence is invoked by one party to the conflict *vis-à-vis* the aggressor. Accordingly, no reason may be invoked to claim that humanitarian law is not equally applicable in a case of self-defence, or even in an extreme circumstance of self-defence.

Fujita's assertion is ground-breaking because if the nuclear weapons issue is to be judged on the basis of international humanitarian law alone, then the issue of legality will easily be put to rest. For one vital reason international humanitarian law is made up of the principles of distinction and proportionality, both of which would be impossible to observe in a nuclear-war situation. The question is whether international humanitarian law allows a state to disregard its essential principles in an extreme circumstance of self-defence. Fujita even asks the question, 'what is meant by an extreme

circumstance of self-defence, in which the very survival of a state would be at stake?’ And he answers that this must be a new concept, but one which was not defined by the court.

He asserts that humanitarian law must be applicable to all means of warfare, and particularly to weapons having uncontrollable effects, which include nuclear weapons. Fujita questions why the threat or use of nuclear weapons in an extreme circumstance of self-defence is not a case in which the threat or use of such weapons would generally be contrary to the rules of humanitarian law and answers that the court’s Opinion does not touch on that problem.

Then in the most interesting analysis, while observing that the court’s opinion has adopted as valid, the doctrine of deterrence, he puts up a challenging poser that if the second passage is regarded as having been influenced by the doctrine of deterrence, then it follows that for their own security all states should be allowed to have nuclear weapons or be protected under a nuclear umbrella in order to ensure their survival in an extreme circumstance of self-defence. But that would be contrary to the spirit and letter of the treaty on the non-proliferation of nuclear weapons, as well as to the 1995 instruments providing for that treaty’s unlimited extension. Furthermore, it would be incompatible with the Advisory Opinion itself. If complete nuclear disarmament were achieved, would not the security of a state in such an extreme circumstance be guaranteed without possession of nuclear weapons or without a nuclear umbrella?

Indeed Fujita’s analysis raises deep questions about the inherent contradictions in the court’s opinion, as well as the largely ignored fact that humanitarian law is the relevant field of law in which the yardstick for judging the nuclear issue lies. As impressive an analysis, however, Fujita’s analysis does not take into cognizance the existence of smaller nuclear armaments or tactical weapons. This fact was aptly emphasized by **Christopher Greenwood**, who believes that the request for an Advisory Opinion was misconceived and the court should not have been expected to answer such a question.

According to Greenwood, the court was right to find that international law does not at present contain a specific prohibition of the use of nuclear weapons. He opines that any use of nuclear weapons would be subject to the ordinary principles of the law on the use of force and of international humanitarian law. Those principles do not permit an abstract determination that, irrespective of what circumstances might exist at any time in future no use of any sort of nuclear weapon could ever be compatible with them. With obvious hesitation, the court essentially took that view, for it was not prepared to hold that the use of nuclear weapons was unlawful in all circumstances. In fact, Greenwood is of the view that the court should have gone further to state that a use of nuclear weapons which satisfied the requirements of the law on the use of force and international humanitarian law would be lawful. He asserts that properly read, the opinion as a whole is compatible with international humanitarian law, and reaffirms a number of important humanitarian principles.

However, it is noteworthy that even though the court did not give an outright declaration on the illegality of nuclear weapons, it did not specifically mention the use of smaller, tactical nuclear armaments to justify its decision. As rightly observed by **Manfred Mohr**, the court establishes a link with what it describes as the ‘unique characteristics’ of nuclear weapons. These lie in the vastly destructive power of such arms (including the radiation phenomenon), thus rendering the nuclear weapon ‘potentially catastrophic.’ Furthermore: “they have the potential to destroy all civilization and the entire ecosystem of the planet.”

Mohr observes that what is highly significant is that the court extends these ‘unique characteristics’; the capacity to cause untold human suffering and damage, to all types of nuclear weapons and use thereof. Like Fujita, he registers his regret that the court, despite its clear and convincing findings on the potential harm of nuclear weapons, made a distinction between the principle of proportionality (which *per se* would not unconditionally exclude any recourse to nuclear weapons in

self-defence) and international humanitarian law (to which reference must ultimately be made in determining lawfulness). He opines that humanitarian law is itself influenced by the principle of proportionality, which basically links it with international law as deriving from the charter or peacetime international law. In other words, the use of nuclear weapons, more specifically for a ‘first strike’, is always disproportionate and/because it is contrary to international humanitarian law.

Unlike Condorelli, Mohr regards the ICJ’s Opinion, despite its flaws, as a progressive move towards the complete elimination of nuclear weapons, as in fact, a piecemeal victory to the anti-nuclear-weapons theorists. He observes to the effect that a series of actions are underway towards the total ban on nuclear weapons, citing the Comprehensive Nuclear-Test-Ban-Treaty as being one of them. He opines that the objective remains complete nuclear disarmament, i.e. the total elimination of nuclear weapons as enshrined in Article VI of the NPT. The court itself firmly re-emphasizes that goal at the end of the Advisory Opinion, pointing out that Article VI does not contain a mere obligation of conduct, but an obligation to achieve a precise result. Accordingly, he believes that the opinion will surely give impetus to that process, particularly within the framework of the United Nations.

A fine conclusion made by Mohr is that despite some flaws and contradictions, the court’s Advisory Opinion represents a triumph for the rule of law in international relations. The court has taken a stand on one of the burning legal and political questions of our time, and its response is in essence a negative one. Even though such Advisory Opinions are not binding, they nonetheless carry very high authority.

1.6.2 Review of the Literature on the Framework for the Elimination of Nuclear Weapons

Against the background of the foregoing discourse, it may be well understood why the international community has been pressed upon suppressing the further progression of nuclear weapons. From the bulk of the literature available, it is apparent that apart from the nuclear superpowers, an overwhelming

majority of the world populace would rather have nuclear weapons eliminated from the face of the earth. Efforts have been made to that effect starting with the promulgation of the Nuclear Non-Proliferation Treaty in 1968. The NPT is the cornerstone of the non-proliferation regime, which is actually the foundational aspect of a nuclear elimination regime.

It can be asserted with certainty that there is in existence a framework for the elimination of nuclear weapons; such framework is intertwined with the nuclear non-proliferation regime. Whether or not that framework is adequate to achieve absolute elimination is a subject of further discourse. The Canadian Foreign Minister, Axworthy, rightly said that the nuclear non-proliferation regime is based on, and anchored in, international law and norms as well as incorporated into international mechanisms. The Non-Proliferation Treaty is fundamental, but the broader regime is a complex system of multilateral and bilateral agreements, arrangements and mechanisms intended to promote and achieve a world without nuclear weapons, sooner than late. The regime is intended to provide a framework to enable the world make effective use of nuclear capacity for peaceful purposes.

Although there is a framework for nuclear weapons elimination, it is widely acknowledged that it has proven to be inadequate to achieve its ultimate purpose, primarily because more states have acquired nuclear weapons since the NPT, there are only sluggish attempts to disarm by nuclear superpowers and there are subsisting ambitions by other states to acquire nuclear weapons.

John Simpson asserts that the legal regime of nuclear non-proliferation, however inflexible it may appear, offers an essential foundation for nuclear anti-proliferation policies: a normative and legal framework to legitimize national and international action against proliferators as well as provide incentives for non-proliferation. He asserts though that changes in the international nuclear environment have exposed widening gaps between the environment and existing non-proliferation arrangements.

In essence, Simpson acknowledges the inherent worth of the existing framework on nuclear non-proliferation as a foundation to a stronger and more assertive, cogent regime. In other words, the current regime is not adequate to represent an authoritative framework for elimination and/or non-proliferation. He identifies changes that have taken place in the international nuclear environment since the coming into force of the NPT, which undermines the treaty, for example, he cites the development of suicide terrorist threats from transnational non-state actors and changes in procurement strategies of state proliferators, among others. Essentially, Simpson's thesis is for a reform in the non-proliferation regime, to keep it updated to respond to current challenges.

Like other analysts who point to the inadequacies of the nuclear non-proliferation/elimination regime, **T. V Paul** cites the weakness of the regime in the lack of coercive sanctions against violators of the Non-Proliferation Treaty. He asserts that loopholes in the NPT made it possible for some signatories such as Iraq, North Korea, Iran and Libya, to pursue clandestine nuclear weapons programs, even as they remained parties to the NPT. He suggests the use of military or economic sanctions to deter potential proliferators from launching nuclear weapons programs. Although states have been using bilateral sanctions in their nuclear interactions with each other, his suggestion is that the power of imposing coercive sanctions should be given to the United Nations Security Council. Another weakness of the regime, particularly with negative implications for his thesis recommendation is that states could withdraw from the NPT if their supreme national interests dictate they do so.

He however cites many weaknesses of his own thesis, one of which is that any attempt by the United Nations to focus on a few small and vulnerable countries, while ignoring a number of others, including the present five nuclear powers and the opaque states, would be tantamount to a new kind of "atomic" colonialism. He notes interestingly that non-proliferation has been slowly emerging as an area

of international consensus, largely because of a tacit agreement among the major superpowers that violators of the NPT are a challenge to their dominance of the international system.

Although the framework of non-proliferation has been widely appraised as inadequate to contain emerging nuclear challenges as well as achieve complete disarmament, it has been acclaimed also, for slowing the pace of proliferation of nuclear weapons. Acknowledging the significant role played by the NPT, **Zachary Davis** observes that if the NPT were to end today, recent successes could be reversed and a few countries would probably join the nuclear club.

The foregoing review has featured a split opinion on the validity/desirability or otherwise of possession of nuclear weapons by states. On the whole, the literature revealed general dissatisfaction over the resolution of the nuclear weapons issue and collective aspiration for the issue to be resolved in a way that best suits the interests of world peace and security. However, each literature lacked an in depth analysis of both sides of the split opinion on the issue. Anti-nuclear weapons proponents have presented their analysis based on the strength of their belief in the evil consequences of nuclear weapons with a view to having them completely eliminated. Pro-nuclear weapons proponents, on the other hand, have advanced their argument in favor of deterrence and continued possession of nuclear weapons. What either literature failed to provide is an objective analysis of the merits of the opposing view.

In view of the foregoing, this dissertation has examined the nuclear deterrence theory objectively; taking into consideration both sides of the split opinion regarding the possession of nuclear weapons. It adopted not only an analytical approach but a scientific approach towards resolving the question of nuclear deterrence. A critical examination of the different phases in world history and the incidences of war were made with a view to resolving the question of the sustainability of the nuclear deterrence doctrine. New realities featuring on the international scene were analyzed in the perspective of the deterrence doctrine in a way that none of the literature examined had accomplished.

1.7 Justification for the Research

The issue of the possession of nuclear weapons by states *vis - a- vis*. elimination is a topical issue in contemporary times. It is unanimously accepted that the use of nuclear weapons is inhuman and destructive. However, the division of opinion over the question whether the possession is a threat to world peace and security or whether it is necessary for ensuring world peace and security is largely unresolved. The theme of elimination is, therefore, justified against the background that the whole world is kept under the danger of nuclear catastrophe because of the theory of ‘deterrence.’ Possession creates a threat to use nuclear weapons, hence deters states from going to war out of fear. The same possession creates the likelihood of nuclear war actually happening and destroying the world. An adequate solution to the problem must be one that best suits the purpose of world peace and security and a research of this content is justifiable for the purpose of contributing findings and recommendations as solutions to the problem.

1.8 Organization Layout

The Dissertation is divided into seven chapters. Chapter One laid the foundation of the dissertation by providing the framework. Chapter Two provided a clarification of key terms relevant to the dissertation and it also made an appraisal of the history and effects of nuclear weapons. Chapter Three examined the components of the legal framework for the elimination of nuclear weapons, representing a core part of the work. Chapter Four examined the issue of nuclear weapons under the framework of international humanitarian law. Chapter Five examined the second core variable of the dissertation, implications for the elimination of nuclear weapons, to world peace and security. Chapter Six made an in-depth analysis of the compliance with and enforcement of nuclear weapons law. Chapter Seven concluded the dissertation with findings and recommendations.

CHAPTER TWO
CLARIFICATION OF KEY TERMS, HISTORY AND EFFECTS OF NUCLEAR
WEAPONS

2.1 Clarification of Key Terms

2.1.1 Nuclear Weapon

A Nuclear Weapon is a device, such as a bomb or warhead that derives its force from either the fission or the fusion of atomic nuclei and is delivered by an aircraft, missile, earth satellite or other strategic delivery system. It is a complete assembly, in its intended ultimate configuration that, upon completion of the prescribed arming, fusing and firing sequence, is capable of producing the intended nuclear reaction and release of energy.

Nuclear weapons are the most potent explosive devices yet invented. They have also been defined as weapons of mass destruction powered by atomic rather than chemical processes, which produce large explosions and hazardous radioactive byproducts by means of either nuclear fission or nuclear fusion. They can be delivered by artillery, plane, ship or ballistic missile. Some can also fit inside a suitcase. An individual nuclear device may have an explosive force equivalent to millions of tons (megatons) of trinitrotoluene, more than enough to completely destroy a large city.

(a) Types of Nuclear Weapon

Various names are used to describe weapons that release energy through nuclear reactions. In other words, nuclear weapons are known by a variety of names. Prominent among these are:-

- i. Atomic bombs
- ii. Hydrogen bombs
- iii. Fission bombs
- iv. Fusion bombs
- v. Thermonuclear weapons

The foregoing may all be referred to as 'nuclear weapons.' When they are being specified in their mode of application or constitution, they adopt any one of the variants listed above. Nuclear analysts generally classify nuclear weapons according to their mechanism of operation as Fission bombs and Fusion bombs.

A fission bomb is a nuclear weapon in which enormous energy is released by nuclear fission, which is splitting the nuclei of a heavy element like uranium 235 or plutonium 239. Fission bombs are the earlier forms of atomic bombs used by the U.S.A against Nagasaki and Hiroshima in 1945, named "Little boy" and "Fat man."

Fission devices use uranium or plutonium as fuel. When a sufficient amount of the fuel is suddenly brought together, the fission of one nucleus causes the fission of others. These bring about the fission of still more in turn. The process continues until all the fuel is consumed. This is called a chain reaction, and the amount of fuel needed for it to occur is called the critical mass. The critical mass depends upon the type and purity of the fuel and upon the amount of the fuel present. The synonyms for fission weapons are atomic bombs or atom bombs, abbreviated as A-bombs. Before a fusion bomb can be developed, the stages of developing a fission bomb must be undertaken. As a matter of fact, the development of a fission bomb is a prerequisite for developing the fusion bomb.

A Fusion Bomb is a weapon whose enormous explosive power results from an uncontrolled, self-sustaining chain reaction in which isotopes of hydrogen combine under extremely high temperatures to form helium. Such fusion weapons are generally referred to as thermonuclear weapons or hydrogen bombs, abbreviated as H – bombs as they rely on fusion reactions between isotopes of hydrogen (deuterium and tritium). However, all such weapons derive a significant portion and sometimes a majority of their energy from fission. Unlike fission weapons, there are no inherent limits on the energy released by thermonuclear weapons.

Weapons which are designed to threaten large populations or to generally deter attacks are known as strategic weapons while weapons which are designed to actually be used on a battlefield in military situations are known as tactical weapons.

2.1.2 Nuclear Proliferation

Nuclear proliferation is a term used to describe the spread of nuclear weapons and weapons-applicable nuclear technology and information to nations which are not recognized as “Nuclear Weapon States” by the Treaty on the Nonproliferation of Nuclear Weapons, also known as the Nuclear Non-Proliferation Treaty, 1970.

2.1.3 Nuclear Non-Proliferation

Nuclear Non-Proliferation is the effort to eliminate the spread of nuclear weapons technology. It is the action or practice of curbing or controlling an excessive, rapid spread of nuclear weapons. It also pertains to diplomatic agreements limiting the spread of nuclear weapons. The concept is embedded in

the 1968 Treaty on the Non-Proliferation of Nuclear Weapons whereby nuclear weapon state parties undertake not to transfer nuclear weapons, other nuclear explosive devices or control over them to any recipient, or to assist any non-nuclear weapon state to manufacture or acquire nuclear weapons or other nuclear explosive devices. On their part, non-nuclear weapon state parties also undertake not to receive the transfer of nuclear weapons, other nuclear explosive devices or control over same from anyone. They also undertake not to manufacture or acquire nuclear weapons or other nuclear explosive devices.

2.1.4 Nuclear Disarmament

Nuclear disarmament or disarmament of nuclear weapons refers to the gradual reduction and eventual elimination of nuclear weapons in the world. The Nuclear Non-Proliferation Treaty, 1968 makes reference to nuclear disarmament whereby state parties “undertake to pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament.”

2.1.5 Nuclear Deterrence

Nuclear deterrence is the threat of nuclear retaliation for a proscribed behavior, generally an attack upon the threatening state. It is the military doctrine that an enemy will be deterred from using nuclear weapons as long as he can be destroyed as a consequence. The doctrine of nuclear deterrence is hinged on the theory of ‘mutually assured destruction’ which supposes that countries possessing nuclear weapons, the world superpowers and their allies, will refrain from engaging in both conventional and nuclear warfare because of the potential detonation of the destructive nuclear weapons, which will result

in destroying all the parties involved. The fear of self destruction from the use of nuclear weapons will therefore deter states from going to war, consequently safeguarding the security of the world.

Popular literature on the subject shows two kinds of nuclear deterrence. One refers to deterrence from the use of nuclear weapons by nuclear armed states. The other refers to deterrence from engaging in conventional warfare by both nuclear armed and non-nuclear armed states because of the fear of possible use of nuclear weapons in the process. The first kind of deterrence theory evolved in the 1940s simultaneously with the development of nuclear weapons. The dynamics of the relationship between the United States of America and the former Soviet Union during the Cold War developed the first notion of nuclear deterrence. Keith Payne aptly explained the nuclear deterrence doctrine between U.S.A and the Soviet Union thus:

Over the course of the Cold War, the majority of American strategic thinkers gravitated to the notion that mutual deterrence, built around survivable retaliatory capabilities on both sides, made strategic relations between the United States and the Soviet Union predictably “stable.” Both countries, the thinking went, would be deterred from highly provocative behavior by a mutual fear of escalation to a general war in which the level of nuclear destruction to the civilian infrastructure and population would far exceed any possible gain for either side. Consequently, each would avoid provoking the other in the extreme.

Another description of nuclear deterrence has been given thus:

Nuclear deterrence hinges on the adversarial relationship between states. That in an adversarial relationship, there are many reasons to fear an attack. A country that fears it is in imminent danger of being attacked might prefer to preempt. A country that perceives it has a dominant position may feel forced to attack in order to prevent being preempted. When both sides foresee a change in their power relationship, there is a mutual fear of preemption and an attack may ensue. The solution is to eliminate the fear: both countries must be confident that the other has nothing to gain from

an attack. Deterrence involves preventing a premeditated attack as well as preventing a preemptive attack.

2.1.6 Nuclear Weapon States and Non-Nuclear Weapon States

Nuclear weapon states are state parties to the Non-Proliferation Treaty who developed their nuclear weapons before 1968 when the treaty came into being. They are recognized as the nuclear weapon states by the treaty. They are five in number, U.S.A, Russia, Britain, China and France. However, four other states of the international community developed nuclear weapons after 1968 and are, accordingly, nuclear weapon states as well. They are India, Pakistan, Israel and North Korea. All other states of the international community are non-nuclear weapon states.

2.1.7 World Peace and Security

(a) Definition of Peace

In the sphere of law and international relations, the word “peace” has been severally defined as “the absence of war” or in relation to the absence of war. The Greenwood Encyclopedia of International Relations defines peace in a *de facto* sense as a “prolonged lull separating armed conflicts, though without benefit of a formal armistice, ceasefire, or peace treaty.” In a *de jure* sense it defines peace as “the condition of normal legal relations re-established among erstwhile belligerents upon signature and ratification of a peace treaty.” In a colloquial sense it defines peace as “the end and absence of armed hostilities, whether this comes about by consent or conquest.” In a comprehensive sense it defines peace as “the absence of war and the expectation of war, corresponding to general acceptance by the Great Powers that the status quo is not to be changed by force, so that diplomacy and international law displace war as the prime mechanism of resolution of interstate disputes.” In an ideal and perpetual sense it defines peace as “a sustained period of general security and order, where international law and human rights are broadly respected and disputes are settled by adjudication, arbitration, conciliation,

diplomacy and negotiation and the only force used or legally permitted in relations among nations concerns cases of limited reprisal or law enforcement.”

According to David Francis, peace is generally defined as the absence of war, fear, conflict, anxiety, suffering and violence, and about peaceful coexistence. It is primarily concerned with creating and maintaining a just order in society and the resolution of conflict by non-violent means. Peace has also been defined as the freedom from war, or the time when a war or conflict ends.

It is clear from the foregoing definitions that peace is generally viewed from the perspective of the absence of war. However, more progressive definitions of peace have been given. Indeed, some peace theorists have broadened their definition of peace beyond the traditional understanding of peace merely as an absence of war to encompass elements that ensure survivability in an economically as well as environmentally viable world. That notwithstanding, however, such definitions still maintain as an integral part, the absence of armed conflict. Georg Picht, for instance, includes as elements of peace, guaranteed subsistence for the hungry two thirds of mankind as well as a supra-national management of the planet's food resources, existing raw materials and energy, supra-national measures against global pollution and a disarmament and arms control which is so comprehensive that it will be technically impossible to wage a world war.

The Norwegian peace theorist, Johan Galtung, views peace from two perspectives, the negative and the positive. The negative peace manifests in the absence of direct violence, war, fear and conflict at individual, national, regional and international levels, while the positive peace manifests in the absence of unjust structures, unequal relationships, justice and inner peace at individual level.

Galtung distinguishes three types of violence relevant to the understanding of peace and conditions that create un-peaceful situations or 'peacelessness.' The first is 'direct violence,' that is, physical, emotional and psychological violence. The second is 'structural violence,' that is, deliberate policies and

structures that cause human suffering, death and harm and the third is ‘cultural violence,’ that is, cultural norms and practices that create discrimination, injustice and human suffering.

Some have argued that the definition of peace varies according to different cultures, civilizations, ideologies and circumstances. All known religions; Islam, Christianity, Judaism, Buddhism, have conceptions of peace which are intrinsic to their faith and belief system. Similarly, the concept of peace may be viewed through philosophical, sociological, and political perspectives. According to the University of Peace definition, peace is a political condition that makes justice possible.

A sociological perspective of peace is the absence of class-struggle resulting from the exploitative relations between the dominant ruling class and exploited working class. Such unequal relationship almost always leads to societal violence. On the other hand, most philosophical definitions of peace tend to explain the dynamics of war and peace in relation to the natural inclinations of humankind, for instance, Thomas Hobbes’s popular theory of ‘the state of nature’ being originally rampant with conflict and violence, leading to a life, solitary, poor, nasty, brutish and short, which gives rise to the social contract in which each man gave up his/her right to self-defence to a *Leviathan*, in return for a peaceful and orderly life.

Incorporating various perspectives of peace, Miall subdivided peace into six different meanings:

- i. The absence of war (absence of direct violence)
- ii. Justice and development
- iii. Respect and tolerance between people
- iv. Gaia (Harmony or balance in, and with the ecosystem)
- v. Tranquility or Inner peace (Spiritual peace) and
- vi. ‘Wholeness’ and ‘making whole’ (being complete)

(b) Definition of Security

Security has been defined as the state or feeling of being safe and protected, freedom from worries of loss: the assurance that something of value will not be taken away; safety: protection against attack from without or subversion from within. It is about the condition of safety or feeling safe from harm or danger. It is to do with the defence and protection of core values and the absence of threats to acquired values. Security is about absence of warfare or negative peace. The concept of security embraces non-military dimensions such as the environment, migration, ethno-religious and nationalist identities, poverty and human insecurity and disease. Security is, therefore, inextricably linked to peace and the conditions that create conflict.

(c) Working Definition of World Peace and Security

Based on the foregoing definitions of peace, world peace may be defined as a situation of significant absence of war and violence in the world, with guaranteed material well-being and socio-economic progress for all peoples, where there is an internationally competent management of the earth's natural resources and preservation of its ecosystem and nations settle their disputes through dialogue and arbitration, and there is an internationally competent structure for the control of arms and weaponry.

World Security may be defined as the feeling of safety and contentment by peoples of all nations, deriving from the absence of war and violence in the world, coupled with the existence of thriving economies, effective socio-political structures and a well-balanced planetary ecosystem.

While the foregoing definitions of world peace and security create the image of a utopian world, it may be safely asserted that a world which conforms substantially, even if not absolutely, to the definitions may be regarded more as a peaceful one than not, where all people enjoy to a large degree a sense of security.

The body tasked with the responsibility of maintaining peace in the world is the United Nations Organization which was established in 1945 with the foremost mandate and task of maintaining peace among nations as well as protecting the sovereignty of nations. Its principal purpose is to maintain international peace and security, and to that end, take effective, collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace.

The UN is composed of five principal organs; the General Assembly, the Security Council, the Economic and Social Council, the Secretariat and the International Court of Justice. Its primary role of maintaining international peace and security is carried out through some of these organs.

2.2 History of Nuclear Weapons

Historical sources demonstrate how the emergence of nuclear weapons in the 1940s was the result of scientific breakthroughs of the 20th century relating to the atom. Ancient Greek philosophers had earlier developed the idea that all matter is composed of invisible particles called atoms. Scientists in the 18th – 19th centuries revised the concept based on their experiments and by the 20th century, physicists knew the atom contains large quantities of energy. Several scientists successively developed the science of nuclear energy.

The sheer discovery of the great military potential in the atomic element motivated the great scientists of that era to exploit the possibilities of coming up with the atomic bomb. The race by states to develop their own atomic bombs subsequently was, however, a reaction to the impending threat that the nuclear bomb possessed. The ‘fear trigger,’ therefore, gave rise to the notion of deterrence whereby states desired the possession of nuclear weapons to deter other nuclear-armed states from militarily assaulting them as well as have a military edge over them. The following state-by-state history of the

acquisition of nuclear weapons demonstrates the fear trigger and individual motivations of states to acquire nuclear weapons, as well as the politics of power and dominance of which the issue of nuclear weapons is embroiled in.

2.2.1 The United States of America

Historical annals trace the initiation of the development of the atomic bomb to the United States of America. This was in 1939 following the leakage that Hitler's Germany was working on building an atomic bomb. Hence President Roosevelt launched a secret effort in cooperation with the United Kingdom in a program known as the Manhattan Project, to produce an atomic bomb before Germany could. The program was coordinated by American physicist, Robert Oppenheimer and General Leslie R. Groves.

The Manhattan Project was originally based in Manhattan, New York. The project employed more than 200,000 workers and several thousand scientists and engineers, many of European background. Finally on July 16, 1945, the first atomic bomb was tested in the midst of the Alamogordo desert in New Mexico.

The first nuclear threat to the peace and security of human beings in particular and the world in general manifested when the United States of America under the leadership of President Harry Truman, carried out nuclear assaults on the Japanese cities of Hiroshima and Nagasaki on August 6, 1945 and August 9, 1945, successively, by throwing atomic bombs on them. This was during World War 2 and it was a strategy to compel the Japanese to stop fighting and surrender. It led to the deaths of thousands of inhabitants, as well as to the surrender of the Empire of Japan. It was, in fact, the use of nuclear weapons by the U.S.A on the empire of Japan that signaled the end of the war when Japan surrendered on September 2, 1945.

As at 2011 U.S.A was estimated to possess 8500 warheads as well as facilities for their construction and design, though many of the Cold War facilities have since deactivated and are sites for environmental remediation.

2.2.2 Russia (Former Soviet Union)

Then the Soviet Union, Russia was the second state to join the nuclear club. Its nuclear weapons program began in 1943 during World War 2. The program was initiated by reports collected by Soviet intelligence about the rapidly growing Manhattan Project in the U.S.A. However, it was the nuclear attack against Japan that propelled the Soviet Union to hasten and actualize the making of its own bomb. This is evident in the speech of then President Stalin to Soviet scientists thus, *“A single demand of you comrades; provide us with atomic weapons in the shortest possible time. You know that Hiroshima has shaken the whole world. The balance has been destroyed. Provide the bomb...it will remove a great danger from us.”*

The Soviet Union, therefore, produced its own atomic bomb and executed its first nuclear weapons test (Joe-1) in 1949. When the Soviet Union collapsed in late 1991, it reportedly possessed more than 27,000 nuclear weapons and these weapons were deployed on the territories of several of the former Soviet Republics. All of the nuclear warheads have now been moved to Russia. As at 2011 Russia was estimated to possess a total of 11,000 warheads.

2.2.3 United Kingdom

The United Kingdom was the third state to join the nuclear club by testing its first nuclear weapon, ‘Hurricane,’ in 1952. Britain was actually the first country to seriously study the feasibility of nuclear weapons when two exiled scientists, Otto Frisch and Rudolf Peierls, wrote a memorandum on the

construction of a 'radioactive super bomb' and forwarded it to the Ministry of Aircraft Production. Hence a Committee code named MAUD was founded in April 1940, to work out the possibilities. The Committee worked out the basic principles of both fission bomb design and uranium enrichment by gaseous diffusion. The work done by the MAUD committee was instrumental in alerting the U.S.A to the feasibility of fission weapons in World War 2.

The British scientists worked alone initially under the cover name of *Tube Alloys*, later joining as partners in the American Manhattan project. U.S.A worked cooperatively with U.K and Canada throughout the war whilst the MAUD mission contributed majorly to the Manhattan project. That provided the nucleus for British post-war atomic weapons development effort.

The U.K started independently developing nuclear weapons shortly after the war due to U.S.A's refusal to continue nuclear cooperation with it because of the McMahon Act of 1946 which restricted foreign access to the U.S.A nuclear technology. However, as members of the nuclear club, there has been a special relationship between both countries since the 1958 U.S – U.K Mutual Defence Agreement. Both countries have since cooperated extensively on nuclear security matters, involving the exchange of classified scientific information and nuclear materials such as plutonium. In 1974, a U.S.A proliferation assessment noted that "In many cases Britain's sensitive technology in nuclear and missile fields is based on technology received from the U.S and could not legitimately be passed without U.S permission." As at 2011, the U.K was estimated to possess a total of 225 warheads.

2.2.4 France

Being the fourth country to join the Nuclear Club, France tested its first nuclear weapon, *Gerboise Bleue* in 1960. Its nuclear activities were based mostly on its own research. Although France had been a leading nation in research in nuclear physics before World War II, it lagged badly behind U.S.A and the United Kingdom in the years immediately afterward. As at 2011 it was estimated to possess 300 warheads.

2.2.5 China

China was the last of the original members of the Nuclear Club to join it. It tested its first nuclear weapon device “596” in 1964. China’s efforts to develop nuclear weapons came in response to nuclear threats by the United States of America. In July 1950 at the very beginning of the Korean War, President Truman of U.S.A ordered ten nuclear configured ‘B-29’s to the Pacific and warned China that U.S.A would take “whatever steps are necessary” to stop Chinese intervention and that the use of nuclear weapons “had been under active consideration”

In 1952, President-elect, Eisenhower publicly hinted that he would authorize the use of nuclear weapons against China if the Korean War armistice talks continued to stagnate. In 1954, the commander of the U.S.A strategic command, General Curtis LeeMay repeated the same warning. Finally in January 1955, U.S.A Navy Admiral Radford also publicly advocated the use of nuclear weapons if China invaded South Korea.

These threats prompted the Chinese to begin developing nuclear weapons. On 15 October 1957, the Soviet Union agreed to provide China with a sample atomic bomb and manufacturing data. However, by 1960, the Soviet Union discontinued all assistance to China. After 1960, China was forced to go it alone. As at 2011, China’s nuclear stockpile stood at 240 warheads.

2.2.6 Other Members of the Nuclear Club, and the Anti-Proliferation Regime

The five states analyzed are the states that possessed nuclear weapons before 1968 and are referred to as the original members of the Nuclear Club. The years succeeding the bombings of Hiroshima and Nagasaki witnessed a series of nuclear weapons' testing by the U.S.A, the Soviet Union and Great Britain. By 1954, both the U.S.A and Soviet Union had successfully tested their first generation H-bombs. The tests proved that fusion bombs could easily be made to produce explosions more than 1,000 times as powerful as the fission bombs used in the Second World War. In 1954, President Jawaharlal Nehru of India called for a ban on nuclear testing. It was the first large scale initiative to ban nuclear technology for mass destruction. In 1958, nearly 10,000 scientists presented to United Nations Secretary General, Dag Hammarskjold a petition calling for immediate action to be taken to effect an international agreement to stop testing of all nuclear weapons.

Although nuclear testing by the superpowers persisted, these kinds of protests by people set the stage for an international agreement against nuclear weapons proliferation. Furthermore, U.S.A, being concerned about global hegemony had an interest in hindering the acquisition of nuclear weapons by other states. It was against this background that a move was made to legally curtail the proliferation of nuclear weapons. The United States of America and the Soviet Union took the lead in negotiating an international agreement that would prohibit the further spread of nuclear weapons without banning the utilization of nuclear energy for peaceful purposes. Hence in 1968, the Nuclear Non-Proliferation Treaty came into being with the foremost goal of hindering the proliferation of nuclear weapons.

The Nuclear Non-Proliferation Treaty (NPT) opened for signature on July 1, 1968. The NPT bars nuclear weapon states from propagating weapons to other states and prohibits states without nuclear weapons to develop or acquire them. It permits the use of nuclear energy for peaceful purposes. It entered into force in 1970, stipulated to last 25 years but was extended indefinitely on May 11, 1995. It

was first signed by the U.S.A, U.K, the Soviet Union and 59 other countries. China and France acceded to the Treaty in 1992. Presently, all members of the United Nations Organization except Israel, India and Pakistan, have signed the treaty. North Korea withdrew from the treaty in 2003.

There have been other treaties, some bilateral, between U.S.A and Russia, seeking to control the acquisition, testing and proliferation of nuclear arms. The first was the Limited-Test-Ban-Treaty of 1963, which prohibited nuclear explosions in the atmosphere, in outer space and under water. The most recent is the Comprehensive-Test-Ban-Treaty of 1996 which banned all nuclear explosions including underground tests for military as well as peaceful purposes. However, the nuclear group of five continued to grow even after the entry into force of the NPT in 1970. This manifested first in 1974 when India, one of the only three countries of the United Nations, non-party to the NPT, tested its first nuclear device “Smiling Buddha.”

(a) India

In the mid-1950’s India acquired dual-use technologies under the “Atoms for peace” non-proliferation program, which aimed to encourage the civil use of nuclear technology in exchange for assurances that they would not be used for military purposes. Under the program, India acquired a circa 40 mwt heavy water-moderated research reactor from Canada and purchased from U.S.A the heavy water required for its operation. In 1964, India commissioned a reprocessing facility at Trombay, which was used to separate out the plutonium produced by the circa research reactor. This plutonium was used in India’s first nuclear test on May 18, 1974, described by the Indian government as a “peaceful nuclear explosion.”

As at September 2009, India was estimated to have a stockpile of around 60 to 80 warheads. It was estimated that India possessed enough separated plutonium to produce and maintain an arsenal of 1,000 – 2,000 warheads. As at 2011, India was estimated to possess about 80 to 110 warheads.

(b) Pakistan

To fully comprehend the nuclear posture of Pakistan and, indeed, India, the historical background of the relationship between the two countries must first be understood. This is because their nuclear postures have been, and continue to be dictated by the dynamics of the relationship between them.

Pakistan and India have had a turbulent relationship since the creation of the Pakistan State from India in 1947. India, then British India, was split by colonial powers into two in 1947 as a result of the desire of the population of India to have two separate states inhabiting Muslims in one and Hindus in the other. Pakistan represented the Muslim abode while India, the Hindus' even though a percentage of Muslims remained in India.

The conflict between the newly created Pakistan and old India stemmed from the quest by each to own the lands of “Kashmir” and “Hyderabad,” which had not been apportioned to either of them. Rather, the people of those lands were left to decide where to belong. The leader of Kashmir with a majority Muslim population chose to belong to India, which was not acceptable to Pakistan. Both countries have engaged in four major wars in 1947, 1965, 1971 and 1999

In 1964 when China's first nuclear test seemed imminent, factions in India, including politically prominent scientists (Homi Bhabha, who also led India's nuclear program) were openly agitating for nuclear weapons. Evidence suggests that India's new interest in the nuclear option was of great concern to Pakistan. In 1965, Pakistan Minister for Fuel, Power and Natural Resources, Zulfikar Ali Bhutto declared the necessity and determination of Pakistan to have a nuclear weapons program. In 1972,

Pakistan's nuclear weapons program was established. In 1985, Pakistan crossed the threshold of weapons-grade uranium production and by 1986, it was thought to have produced enough fissile material for a nuclear weapon and it continued advancing its uranium-enrichment program. On May 28, 1998, Pakistan announced that it had successfully conducted five nuclear tests.

From the foregoing, it can be seen that Pakistan's nuclear doctrine is apparently tied to its relationship with neighboring India, its arch enemy. Several sources, such as Jane's Intelligence Review and Defense Department reports maintain that Pakistan's motive for pursuing a nuclear weapons program is to counter the threat posed by its principal rival, India, which has superior conventional forces and nuclear weapons. It is equally important for India to preserve its nuclear weapons to sustain its edge over Pakistan.

China is alleged to have played a major role in the establishment of Pakistan's nuclear power development infrastructure especially when increasingly stringent export controls in Western countries made it difficult for Pakistan to acquire materials and technology elsewhere. According to a 2001 Canadian Intelligence report, China supplied Pakistan with nuclear materials and critical technical assistance in the construction of Pakistan's nuclear weapons development facilities before China joined the Nuclear Non-Proliferation Treaty, which would have ruled out such assistance. Pakistan is one of the three states that have not signed the NPT.

Integrally tied to the history of Pakistan's nuclear weapons is the contribution of Dr Abdul Qadeer Khan, popularly known as 'A.Q Khan,' a Pakistani nuclear scientist and metallurgical engineer. The success of Pakistan's nuclear weapons program is largely attributed to him. Khan had also held the prestigious position of Science Adviser to the Pakistani government until 2004 when he was debriefed following allegations by the U.S.A that he had been engaged in an illegal fissile material black market trade with some countries. The arrest and subsequent confession by Khan confirmed the existence of a

global proliferation network which had over almost two decades provided nuclear technology, expertise and designs to Iran, North Korea and Libya. The network had eluded both national and international systems of export controls that had been designed to prevent illicit trade.

More than any occurrence internationally, the A.Q Khan network demonstrated to the international community how volatile the issue of nuclear weapons is and how the materials for making them, as well as the technology, can get into the hands of non-state actors and terrorist groups since illicit trade in them can successfully tarry for two decades. Finally, as at 2011, Pakistan was estimated to possess 90-110 warheads.

(c) North Korea

North Korea was a member of the NPT. However, it withdrew from the treaty on January 10, 2003. On October 9, 2006, it conducted an underground nuclear explosive test. Its motive for pursuing a nuclear weapons program is tied to its history of bitter relations with its neighbor, South Korea. In 1945, the Korean peninsula was liberated from Japanese occupation after the defeat of Japan in World War II. The U.S.A occupied the South of Korea after the liberation, and the Soviet Union occupied the North. In 1948, two states were created, South Korea, which had a democratic administration and North Korea, a Communist one.

The division into two states eventually became toxic with the influence of the two rival nuclear powers, U.S.A and the Soviet Union, above them. In 1950, a war broke out between the two states when North Korea invaded South Korea. The United Nations approved a military intervention to assist South Korea and the United States threw its weight behind South Korea. North Korea was aided by Communist China and Soviet Union. The war lasted three years until the United Nations Organization

brokered an armistice agreement between them. Since then, South Korea had enjoyed the assured protection of the U.S.A; it has been placed under U.S.A's nuclear umbrella and is considered an ally.

On the other hand, North Korea's relations with the Soviet Union declined with the collapse of the latter in the 90's. Similarly, when China began to initiate diplomatic relations with South Korea, its relationship with North Korea also declined. Eventually feeling vulnerable in the international community, North Korea decided to withdraw from the Non-proliferation Treaty and nurture the nuclear weapons program it had commenced earlier. Its stated reasons for withdrawing from the NPT were that the United States was threatening its security by its hostile policy toward it, that the United States had singled it out as a target of a pre-emptive nuclear attack and had threatened it with a blockade and military punishment. While South Korea, its enemy remained under the nuclear umbrella of the United States, North Korea had no such nuclear guarantees.

North Korea's nuclear weapons program dates back to the 1980s. In the 1980s, focusing on practical uses of nuclear energy and the completion of a nuclear weapon development system, it began to operate the facilities for uranium fabrication and conversion. It began construction of a 200 MWe nuclear reactor and nuclear processing facilities in Taechon and Yongbon, respectively and concluded high-explosive detonation tests.

North Korea began a secret uranium enrichment program after 1995, reportedly with the assistance of Pakistan. North Korea provided Pakistan with intermediate range ballistic missiles in the late 1990s. Hwang Jang-Yop, a Communist Party Secretary who defected in 1997 has testified that North Korea and Pakistan agreed in the summer of 1996 to trade North Korean long-range missile technology for Pakistani uranium enrichment technology. It is believed that the Soviet Union assisted North Korea indirectly by providing it with a small research reactor in the 1960's and the North Korean nuclear scientists continued to receive military training in the Soviet Union till the demise of the Soviet Union in

December 1991. Since 1999, reports have appeared that U.S.A Intelligence Agencies had information that Chinese enterprises were supplying important components and raw materials for North Korea's missile program. As at 2011, North Korea was estimated to possess 10 nuclear warheads.

(d) Israel

Israel has not confirmed that it has nuclear weapons and officially maintains that it will not be the first country to introduce nuclear weapons in the Middle East. However, the declassification of large numbers of formerly highly classified U.S.A documents shows that the U.S.A by 1975 was convinced that Israel had nuclear weapons. In the fall of 1986 a former Israeli nuclear technician, Mordechai Vanunu, disclosed illegally possessed evidence proving that Israel, by all meaningful definitions of the term, was indeed a nuclear weapons state and a powerful one as well. Drawing from Vanunu's photograph from the bomb factory, underneath the small Dimona nuclear reactor, Western experts concluded that Israel at the time probably had acquired enough fissile material to produce more than 100 nuclear bombs and warheads. Israel is pursuing a policy of strategic ambiguity with regard to the possession of nuclear weapons. In the late 1960s Israeli Ambassador to the U.S, Yitzhak Rabin informed the United States State Department that Israeli's understanding of "introducing" such weapons meant that they would be tested and publicly declared while merely possessing the weapons did not constitute "introducing them."

It appears that Israel's motive for acquiring nuclear weapons is tied to the peculiar history of the Jews. The first chairman of the Israeli Atomic Energy Commission (IAEC), Ernst David Bergman had long advocated an Israeli bomb as the best way to ensure that "*we shall never again be led as lambs to the slaughter*" By the late 1990s the U.S Intelligence community estimated that Israel possessed

between 73–130 weapons based on production estimates. According to the Natural Resources Defense Council and the Federation of American Scientists, Israel possesses around 75–200 weapons. However, the 2011 estimate of Israel’s nuclear warheads is 80.

There is no evidence that Israel has ever carried out a nuclear test although many observers speculated that a nuclear explosion in the Southern Indian Ocean in 1979 was a joint South African – Israeli test. Israel is one of the three member countries of the U.N.O that has never signed the Non-Proliferation Treaty.

(e) Other Countries

Some countries possessed nuclear weapons but disassembled them either because of the NPT or other peculiar circumstances. South Africa, for instance, produced six nuclear weapons in the 1980s but disassembled them in the early 1990s. It signed the NPT in 1991. Similarly, after the Soviet Union collapsed in 1991, its states, Belarus, Kazakhstan and Ukraine became independent countries possessing nuclear weapons. By 1996, these former Soviet countries had all transferred their nuclear weapons to Russia.

2.2.7 The Cold War Arms Race

World War II, which ended in 1945, ushered in the era of the nuclear bomb. It was, in fact, the nuclear bombs that hit Japan which brought the war to an end. Many analysts regard the period between 1947 and 1991 as the “Cold War” era.

The Cold War refers to the non-military tensions that existed between the Eastern bloc, represented by the United Soviet Socialist Republics (USSR) and allies, on one hand and the Western bloc,

represented by the United States of America and its allies, on the other. The tensions were created by the ideological differences between the two blocs. The Soviet Union nurtured a Communist ideology and operated a communist government. The U.S.A nurtured the ideology of liberal democracy, the values of a free society and a free market, 'Capitalism.' The Soviet Union and the U.S.A were the first two countries to acquire nuclear weapons and had more weapons than any other nuclear weapon state. They were the world's nuclear superpowers.

Each one of the two superpowers sought global hegemony and the desire to impose their ideology on the rest of the world. Accordingly, each supported regimes in various countries of the world that subscribed to their ideology, both financially and militarily. Examples abound of incidents where either of the superpowers fought a proxy war against an ally of the other. In 1968, the Soviet Union led other forces to fight brutally against the democratic government of Czechoslovakia in order to make the eastern European nation succumb to communism. The U.S.A specifically interfered in the governments of weaker countries that subscribed to a communist ideology. Between December 1979 and February 1989, the U.S.A mobilized Muslim guerillas in Afghanistan to fight and conquer the Soviet-backed communist regime which then ruled Afghanistan. They succeeded.

However, the biggest point of conflict between the U.S.A and the Soviet Union as far as countries were concerned was Germany. Having been defeated after the Second World War, Germany was split between the Soviet Union, U.S.A, Britain and France. The Soviet Union occupied East Berlin while the other three occupied West Berlin. U.S.A, France and Britain united their territories under one democratic government. The Soviet Union, on the other hand, ruled Eastern Berlin under a strictly communist government. All through the era both blocs sought to unite the whole of Germany under the system of government that suited their ideology. In order to stop the emigration of East Berliners who found the communist regime overbearing to West Berlin, the then Soviet Union leader erected what

eventually became the Berlin Wall between the East and the West. The Berlin Wall came down in 1990 and signified the fall of the Soviet Union.

Furthermore, the split of the Korean Peninsula into South and North Korea was characterized by the division in ideology between the communist bloc and the liberal democrats. The U.S-territory of South Korea pursued the idea of liberal democracy while the Soviet Union territory of North Korea was communist. It was because of this division that the Soviet Union sponsored North Korea to invade the South in 1950, which led to the three-year Korean War. Such incidents characterized the tensions between the two blocs.

All through the period of the Cold War, the development of nuclear weapons continued between the U.S.A and the Soviet Union. Each of them sought to acquire enough nuclear weapons to deter the other from both conventional and nuclear warfare if tensions became overwhelming. As part of their domestic policies, each acquired thousands of nuclear arsenals which they placed on rockets that could hit targets anywhere in the world. In 1986 the arms race reached its peak. At that time the two superpowers together had 70,500 nuclear weapons in their arsenals. The U.S.A and Soviet Union kept a close eye on each other's nuclear arsenals. Each time one was suspected of having increased its arsenal or acquiring a new kind of nuclear weapon, the other state would soon follow. This led to a mad arms race between them. They developed a strategy of mutually assured destruction which came to be known as the *doctrine of nuclear deterrence*. The theory was to the effect that the greater the threat of mutual destruction, the safer the world would be.

The closest the U.S.A and the Soviet Union came to a nuclear war was in October 1962, in what came to be popularly known as the "Cuban Missile Crisis." The U.S.A had earlier tried to overthrow the Communist Cuban regime headed by Fidel Castro in two unsuccessful endeavors. To deter the U.S.A from further attempts to invade Cuba, the Soviet Union placed missiles in Cuba, an act which alarmed

U.S.A. In reaction to the Soviet-planted missiles, U.S.A staged a naval blockade and threatened nuclear warfare. When the Soviets tried to breach the blockade and shot an American plane, fears of a nuclear war were most imminent like never before. However, the two countries did not engage in war for fear of mutually assured destruction. Rather, they came to an agreement that the Soviet Union would remove its missiles from Cuba and the U.S.A would not invade Cuba again.

The Cold War eventually came to a conclusive end in 1990 when the Soviet Union collapsed due to the complete collapse of its economy. The former Soviet republics regained independence and Russia took the place that was formerly occupied by the Soviet Union.

2.2.8 Second Nuclear Age

The end of the Cold War did not signal the end of the nuclear era. It ushered in the second nuclear age. The second nuclear age which subsists to the present time is characterized by the continued possession of nuclear weapons, as well as the aspiration for proliferation of nuclear weapons among lesser powers for reasons divorced from the American-Soviet rivalry. As earlier discussed, even after the entry into force of the NPT, more states had joined the nuclear club. Apart from non-NPT member states like India, Pakistan and Israel developing nuclear weapons, NPT member states like Iraq and Libya have been caught clandestinely nurturing a nuclear weapons program. North Korea had shunned the anti-proliferation regime by withdrawing from the NPT and embarking on its own nuclear weapons program. On January 22nd, 2013, officials of the North Korean government announced publicly and defiantly that North Korea was strengthening its nuclear weapons program against the January 2013 United Nations Security Council Resolution, which warned about taking significant action against North Korea if it persisted with its nuclear weapons program. In March 2013, the spokesman of the Korean government publicly threatened that North Korea was going to target its nuclear weapons at the U.S.A in response to

new sanctions imposed upon the latter by the United Nations Security Council. Another state suspected of clandestine nuclear proliferation is Iran.

2.3 Effects of Nuclear Weapons

The production, testing and use of nuclear weapons have multidimensional effects which are inarguably adverse. These adverse effects are primarily on the health of humankind and on the natural environment. In 1984, the United Nations Human Rights Committee noted that “It is evident that the designing, testing, manufacture, possession, deployment and explosion of nuclear weapons are among the greatest threats to the right to life which confront mankind today. In effect, every activity concerning nuclear weapons is inherently adverse.

2.3.1 Effects of Nuclear Weapons’ Explosion

A nuclear explosion is created when heavy nuclei are split - or fissioned – into several of their component parts that are smaller and more stable. The nuclear blast is so powerful that it can crush objects many miles away with high winds in excess of 150 mph. generated at distances greater than a mile. The release of the enormous energy in a nuclear explosion leads to extremely high temperatures, comparable to those that occur at the center of the sun, causing massive and deadly fires. The temperatures generated by a nuclear explosion in comparison, are hundreds to thousands of times higher than the temperatures on the surface of the sun, which heats the surface of the earth from a distance of more than 90 million miles. Dangerous radioactive fallout is also spread over large distances by the resulting nuclear radiation emerging with the nuclear debris.

Explosion produces the worst possible effects on humankind and the natural environment. The energy released from a nuclear weapon detonated in the troposphere can be divided into four basic categories; Blast, which involves 40% to 50% of total energy, thermal radiation, involving 30-50% of

total energy, ionizing radiation, involving 5% of total energy, and residual radiation, involving 5-10% of total energy.

Nuclear explosions produce both immediate and delayed destructive effects. The immediate effects include the blast, thermal radiation and prompt ionizing radiation. The immediate effects cause significant damage to persons and structures within seconds or minutes of a nuclear detonation whereas the delayed effects consisting of radioactive fallout and other possible environmental effects inflict damage over an extended period ranging from hours to centuries, and can cause adverse effects in locations very distant from the site of detonation. To illustrate the devastating effects potentially caused by a nuclear weapons' explosion, the views of diverse experts are hereunder given:

A Physician's view:

A 20-megaton nuclear bomb...would create a fireball 1 1/2 miles in diameter, with temperatures of 20 million to 30 million degrees Fahrenheit...All living things would be vaporized within a radius of 'ground zero.' Six miles from this point, all persons would be instantly killed by a huge silent heat flash travelling at the speed of light... Within a 10-mile radius, the blast wave would slow to 180 mph. In that area, winds and fires would probably kill 50 percent of the population, and injure another 40 percent... Within 20 miles of the center, 50 percent of the inhabitants would be killed or injured by the thermal radiation and blast pressures, and tens of thousands would suffer severe burn injuries...Medical "disaster planning" for a nuclear war is meaningless... There is no possible effective medical response. Most hospitals would be destroyed, most medical personnel dead or injured, most supplies unavailable. Most "survivors" would die.

A Biologist's view:

Species extinction could be expected for most tropical plants and animals, and for most terrestrial vertebrates of north temperate regions, a large number of plants, and numerous freshwater and some marine

organisms....Whether any people would be able to persist for long in the face of highly modified biological communities; novel climates; high levels of radiation; shattered agricultural, social and economic systems; extraordinary psychological stresses; and a host of other difficulties is open to question. It is clear that the ecosystem effects alone resulting from a large scale thermonuclear war could be enough to destroy the current civilization in at least the Northern Hemisphere. Coupled with the direct casualties of perhaps two billion people, the combined intermediate and long-term effects of nuclear war suggest that eventually there might be no human survivors in the Northern Hemisphere.

An Astronomer's view:

A nuclear war, even a fairly modest one, now seems likely to trigger a period of hemispheric, and possibly global, sub-freezing cold and dark that would have catastrophic consequences for our planetary civilization and perhaps our species. The cause would be absorption of sunlight at altitude by dust from high yield ground bursts and, particularly, by soot from the burning of cities and forests...this effect (has been called) Nuclear Winter...a quite "small" nuclear war, involving 1,000 weapons, each of 100-kiloton yield, all exploded over cities, could produce virtually the full Nuclear Winter effects...After a nuclear war is conceivable that enough of present grain storage might survive to maintain, on some level, the present population for more than a year. But with the breakdown of civil order and transportation systems in the cold, the dark and the fallout, these stores would become largely inaccessible. Vast numbers of survivors would soon starve to death.

In addition, the sub-freezing temperatures imply, in many cases, the unavailability of fresh water. The ground will tend to be frozen to a depth of about a meter – incidentally making it unlikely that the hundreds of millions of dead bodies would be buried, even if the civil organization to do so existed. Fuel stores to melt snow and ice would be in short supply, and ice surfaces and freshly fallen snow would tend to be contaminated by radioactivity and pyrotoxins.

An Analyst's view:

Most people who will die from the nuclear explosion will not die in the initial gamma ray burst, nor in the multi-spectral heat blast (mostly X-ray and ultraviolet wavelengths) which will come about a tenth of a second after the gamma burst. Nor will the pressure wave which follows over the next few seconds do most of them in, though it will cause bleeding from every orifice. Nor even will most people be killed by the momentary high winds which accompany the pressure wave. These winds will reach velocities of hundreds of miles an hour near the epicenter of the blast, and will reach velocities of 70 miles per hour as far as 6 miles from the blast (for a 1 megaton bomb). The high winds and flying debris will cause shrapnel-type wounds and blunt-trauma injuries. Together, the pressure wave and the accompanying winds will do in quite a few, and damage most of the rest of the people (and animals, and structures) in a huge circle -- perhaps hundreds of square miles in area. Later, these people will begin to suffer from vomiting, skin rashes, and an intense unquenchable thirst as their hair falls out in clumps. Their skin will begin to peel off. This is because the internal molecular structure of the living cells within their bodies is breaking down, a result of the disruptive effects of the high radiation dose they received. All the animals will be similarly suffering. Since they have already received the dose, these effects will show up even if the people are immediately evacuated from the area -- hardly likely, since everything around will be destroyed and the country would be at war.

2.3.2 Effects of Nuclear Weapons' Production

The processes involved in the production of nuclear weapons have the adverse effect of contaminating the surrounding site of production. The processes involve the generation of large quantities of toxic waste material. In the United States alone, there are over 4500 contaminated Department of Energy sites, which are heavily polluted and some have been demonstrated by epidemiological surveys to have elevated levels of cancer in surrounding communities. Production sites in the Former Soviet Union report worse levels of contamination.

2.3.3 Effects of Nuclear Weapons' Testing

The first official indication that a country has developed nuclear weapons is by carrying out a nuclear weapons test, which is basically an experiment to determine the effectiveness, yield and explosive capability of the weapon. Nuclear weapons tests are of many kinds:-

- (a) Atmospheric :- Explosions which take place in or above the atmosphere.
- (b) Underwater: - Nuclear devices being detonated underwater, moored to a ship or barge.
- (c) Underground:- Nuclear tests which are conducted under the surface of the earth.

Apart from the actual detonation of nuclear weapons, nuclear weapon testing is the most destructive to human health and the environment. Nuclear testing has been conducted severally by the nuclear superpowers and other members of the nuclear club, resulting to over 2000 nuclear explosions overtime. It has been estimated that global fallout from nuclear testing will lead to over 2 million cancer fatalities alone, not counting other health effects.

Over 500 atmospheric nuclear weapons tests were conducted at various sites around the world from 1945 to 1980. A Center for Disease Control and Prevention/National Cancer Institute study claims that nuclear fallout might have led to approximately 11,000 excess deaths, most caused by thyroid cancer linked to exposure to iodine – 131.

2.3.4 Chernobyl and Fukushima

To emphasize the destructive potential of nuclear weapons, it is worth mentioning that even nuclear technology for civil purposes is not free from danger. Nuclear technology has been used by states for decades mainly for the generation of power. There have been incidents of nuclear accidents overtime.

The worst nuclear accidents that have occurred in the world are the ones that occurred at Chernobyl in Russia and Fukushima Daiichi in Japan.

The accident at Chernobyl occurred on 26 April, 1986, when the fourth reactor of the Chernobyl power station in Russia exploded during a test while operating under full power. Enormous amounts of radiation were propelled miles above the plants and distributed throughout the entire Northern Hemisphere. It was reported that the radioactive materials which emanated from the damaged reactor contaminated about 77, 000 square miles of land. About 1100 square miles of territory surrounding and adjacent to the reactor was subsequently declared uninhabitable.

More recently in Fukushima Daiichi, Japan, a massive earthquake and subsequent tidal wave struck the six nuclear reactors on the Northeast coast of Japan on March 11, 2011. The power to operate the plants' cooling systems was crippled causing a partial core meltdown in the reactors. Radioactive fallout from the crippled reactors has already covered large areas of Japan's main island, Honshi. Hence the vegetation and water of the areas have all been contaminated. Residents near Fukushima site interviewed by Aljazeera International News Network admitted how drastically and miserably the accident had altered their lifestyle. A man admitted that his wife had committed suicide because she could not live that life anymore. More than 300,000 people remain displaced and virtually no rebuilding has begun along the coast. Some 2,300 have died since the accident due to stress directly related to the disaster.

The same network reported in March 2013, that the nuclear tanks at Hanford, U.S.A, have been quietly leaking radioactive substances to the health perils of the inhabitants of the area but the U.S government was not communicating the facts to the people and was also resisting all forms of media probe into the issue.

2.4 Analysis

From foregoing analyses of the effects of nuclear weapons, it may be stated unequivocally that the weapons are designed to achieve the total destruction of humankind, the environment and other inanimate objects. Secondly, any nuclear attack against a non-nuclear weapon country as occurred in 1945 by the U.S.A against the empire of Japan would undoubtedly amount to a situation of blatant injustice by any objective standards, judging by the destructive magnitude of the weapons.

Thirdly, in a war or confrontation between two nuclear armed countries, nuclear weapons have no military advantage whatsoever. To be able to have such quality, users of such weapons must be able to preserve and protect their own safety while targeting their objects of destruction. However, the use of such weapons by states against each other would guarantee the destruction of all parties concerned and their neighbours. Against such daunting realities, what could possibly be the value of nuclear weapons, particularly in relation to the preservation of international peace and security, the safety and protection of humankind and nations?

The historical narrative of the evolution of nuclear weapons has demonstrated how deeply embedded in world politics the issue of nuclear weapons has been since they emerged in the world. It is clear that nuclear weapons were originally created out of nations' quest for world dominance backed by the possession of overwhelmingly destructive military machinery and the potential threat of using it. The proliferation and quest for proliferation of these destructive weapons are sustained by other nations' need to protect themselves against such military dominance and threat.

The drive for global hegemony between the nuclear superpowers has influenced a great percentage of conflicts in different parts of the world between opposing allies of the superpowers. Similarly, the desire to create a regulatory framework in relation to nuclear weapons has been primarily motivated by the superpowers' desire to limit the possibilities of nuclear rivals by limiting nuclear weapons

proliferation. Historical trends indicate the imminent desire for nuclear weapons acquisition by nations as the world progresses.

By and large, the issue of nuclear weapons is deeply embedded in the politics of power among nations and any legal framework that seeks to regulate the issue will inevitably have to confront that fact.

CHAPTER THREE

AN EXAMINATION OF THE LEGAL FRAMEWORK FOR THE ELIMINATION OF NUCLEAR WEAPONS

There is in existence an international legal framework for the non-proliferation and elimination of nuclear weapons. The framework consists of multilateral and bilateral treaties, rules of customary international humanitarian law, judicial pronouncements and soft laws. This chapter examines the component parts of the legal framework, consisting of treaties, soft laws and reports on nuclear weapons and judicial interpretations of the legal status of nuclear weapons.

3.1 Overview of International Treaties on Nuclear Weapons

There are numerous treaties which deal with the issue of nuclear weapons. The Nuclear Non-Proliferation Treaty of 1968 is the most significant multilateral anti-proliferation treaty. Another significant multilateral anti-proliferation treaty is the 1996 Comprehensive Test Ban Treaty. There are treaties that consist of regional arrangements mostly declaring nuclear free zones or prohibiting the production or acquisition of nuclear weapons in specific regions. There are additional Protocols that have been made to supplement some of these regional treaties, for example, the Additional Protocol II and III to the South Pacific Nuclear Weapon Free Zone Treaty, as well as the Additional Protocol II to the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean. Also forming part of the legal framework for nuclear weapons' elimination is the Statute of the International Atomic Energy Agency.

3.2 The Nuclear Non-Proliferation Treaty, 1968 (NPT)

The Nuclear Non-Proliferation Treaty came into being because of the need to prevent the proliferation of nuclear weapons by states, to limit the use of nuclear energy for peaceful uses and to further the goal of nuclear disarmament. It came into force in 1970 and it was originally scheduled to last for a period of twenty-five years from 1970 to 1995. However, in 1995 at the NPT Review and Extension Conference held at the United Nations Headquarters in New York, state parties agreed unanimously that “the Treaty shall continue in force indefinitely.” There are currently 189 state parties to the treaty. Five of them; the United States, Russia (then USSR), United Kingdom, France and China possessed nuclear weapons before 1968. They are also the five permanent members of the United Nations Security Council. Four non-parties to the treaty are known or believed to possess nuclear weapons; India, Pakistan and North Korea have openly tested and declared that they possess nuclear weapons, while Israel has continuously

denied possessing nuclear weapons amidst speculations that it does. The treaty is reviewed every five years during the Review Conference of the parties.

3.2.1 Structure of the Treaty

The treaty contains a preamble and eleven articles. These articles are divided into three pillars:

- i. The pillar of non-proliferation
- ii. The pillar of disarmament
- iii. The pillar of peaceful uses

The name of the treaty rightly suggests that the foremost intent of its drafters was to hinder the proliferation of nuclear weapons. In the preamble, states parties expressed their belief that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war, and the treaty is in conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons.

i. Non-proliferation Pillar

Articles I and II of the treaty deal basically with the theme of non-proliferation. At the time of drafting as well as the time the treaty came into force, only five states possessed nuclear weapons; U.S.A, U.K, USSR, China and France, and were accordingly recognized as nuclear weapons states (NWS). All other states in the world were recognized as non-nuclear weapons states (NNWS).

The nuclear weapon state parties undertake not to transfer to any recipient whatsoever, nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices. They also undertake not to assist, encourage or induce any non-nuclear weapons state to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Similarly, the non-nuclear weapon state parties undertake not to receive the transfer of or control over nuclear weapons or nuclear explosive devices from any transferor; and also not to manufacture, acquire, or to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

The foregoing provisions explicitly bind non-nuclear weapons state parties from becoming members of the nuclear club. On their part, nuclear weapon state parties are prohibited from doing two things. Firstly they are prohibited from introducing any non-nuclear weapon state into the nuclear club. Secondly, they are prohibited from cooperating among themselves in processes involving the transfer of nuclear weapons or nuclear explosive devices.

One may argue that the explicit wordings of Articles I and II suggest that the intent of the drafters of the treaty was to hinder the production of nuclear weapons by non-nuclear weapon states while allowing the original five nuclear weapon states to retain their existing nuclear weapons. This is because while the provisions of Article II relating to non-nuclear weapon states prohibited ‘acquisition’ and ‘manufacture’ of nuclear weapons, Article I, which refers to nuclear weapons states prohibited only the ‘transfer’ of such weapons to ‘any recipient whatsoever.’ The independent reading of the twin articles which comprise the non-proliferation pillar could be interpreted as allowing nuclear weapons states to persist in the manufacture of nuclear weapons or explosive devices provided they do not do so in conjunction with any party. The question that arises, however, is ‘could a treaty which requires nuclear armed states to disarm their nuclear weapons also permit them to manufacture new ones?’ Obviously that would negate the objectives of the treaty as stated in its preamble. It would have been more accurate, therefore, for the treaty to have also prohibited nuclear weapon states from the ‘manufacture’ of nuclear weapons completely.

ii. Disarmament Pillar

The provisions which constitute the disarmament pillar in the treaty are found solely in Article VI, by which each state party undertakes to ‘pursue negotiations’ in good faith on effective measures relating to cessation of the arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

The provisions of Article VI give meaning to the wordings of the preamble which declare the intention of states parties to achieve at the earliest date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament. However, unlike the explicit words constituting the non-proliferation pillar, the words of Article IV are couched in vague language, devoid of certainty.

Another significant point to observe is the requirement in the treaty for the parties to ‘negotiate a treaty on general and complete disarmament.’ This leads to a safe conclusion that the NPT is a treaty on non-proliferation, which lays the foundation for a specific treaty on disarmament, thus creating a framework for nuclear weapons elimination.

iii. Peaceful Uses Pillar

The NPT recognizes the benefits of the peaceful applications of nuclear technology. Hence while the non-proliferation pillar prevents states from transferring nuclear weapons and other nuclear explosive devices to any recipient whatsoever, it stipulates also, that nothing in the treaty shall be interpreted as affecting the inalienable right of all the parties to the treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination, and in conformity with Articles I and II.

Nuclear energy is significant to the development and progress of nations. It has many useful purposes. It is used to generate a substantial fraction of the world’s electricity without emitting greenhouse gases and other air pollutants. It is also used for medicine purposes, for diagnostic and

therapeutic procedures. In addition to nuclear medicine, radiation therapy for cancer and other medical conditions is achieved through the aid of nuclear technology. Furthermore, nuclear technology aids in medical research. Much medical and biological research to understand and find cures for diseases such as cancer and AIDS involves the use of radioactive materials.

Nuclear technology is used, further, for industrial and commercial purposes. Sealed and unsealed radioisotopes are used in many modern industrial processes. They are used to identify flaws in critical parts and welds, to ensure the quality of manufactured products, and to destroy germs and bacteria that contaminate medical supplies, blood supplies and food. Furthermore, nuclear technology is used in the development and exploration of mineral resources in a procedure known as well-logging. Hence the treaty encourages the participation of all states in the exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy.

It could be said that if the need for the use of nuclear energy for peaceful purposes did not exist, it would be much easier to achieve the objective of complete disarmament. However, because it does exist, it is difficult for the relevant authorities to verify if a state is actually using its nuclear technology for peaceful purposes, or it is simultaneously, secretly developing a nuclear weapons program because of the availability and accessibility to all the knowledge and resources required for same. The treaty has however stipulated the International Atomic Energy Agency as the principal verifier of states parties obligations assumed under the treaty. It binds non-nuclear weapons state parties to conclude agreements with the IAEA to meet the requirements of the NPT.

It is interesting that Article IV actually places an obligation on state parties to cooperate in the development of nuclear energy for peaceful purposes. To safeguard this liberty, therefore, each non-nuclear weapons state party has undertaken to accept safeguards as set forth in an agreement to be negotiated and concluded in accordance with the IAEA statute and the Agency's safeguards system.

This is for the exclusive purpose of verification of the fulfillment of its obligations assumed under the treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices.

3.2.2 Elements of Elimination in the NPT

The most significant element of elimination ingrained in the NPT is found in the disarmament pillar, specifically in Article VI where nuclear weapon state parties are expected to cease the nuclear arms race and to commit to nuclear disarmament. This element is corroborated by the preamble of the Treaty where the intention to undertake effective measures in the direction of nuclear disarmament is boldly stated.

Equally so in the non-proliferation pillar, consisting of Articles I and II, the intent of elimination can be inferred from the intent to hinder the further proliferation of nuclear weapons since the goal of elimination will obviously not be achieved by nuclear weapons states if non-nuclear weapons states are not hindered from producing such weapons.

3.2.3 State Parties' Adherence to the Treaty

Regarding its nonproliferation component, the NPT has been largely adhered to by its non-nuclear weapon state parties. This is evidenced by the fact that no NNWS has overtly produced nuclear weapons since the treaty came into force in 1970. In fact, the only state that had launched a nuclear weapons program that was once a party to the NPT is North Korea and it had to withdraw from the treaty to be able to successfully do that. Upon becoming a party to the treaty, South Africa abandoned its nuclear weapons program and dismantled the seven nuclear weapons it had built. On 19th December, 2003,

Libya agreed to destroy all of its nuclear weapons. On 27 January, 2004, the U.S.A airlifted out of Libya components of the nuclear weapons program that the country agreed to give up. Furthermore, many regions in the world have since 1970 been declared nuclear weapon free zones. However, the trend of nonproliferation has in recent times been changing. This manifested in May 1991, when the IAEA officially accused Iraq of having a clandestine nuclear weapons development program and thereby violating its safeguards agreement with the IAEA. Furthermore, in November 2011, Iran was accused by the International Atomic Energy Agency of violating its obligations by carrying out activities relevant to the development of a nuclear device.”

Regarding its disarmament objective, since the treaty came into force in 1970, the nuclear weapon states have reduced their nuclear arsenals but have not completely eliminated them. The two biggest nuclear super powers, U.S.A and Russia have also signed many treaties from 1970 to control the arms race between them. There are concerns, however, in the international community about the slow pace of disarmament and if total disarmament will ever be achieved. Many states and members of the civil society believe that the NPT nuclear weapon states are not fully meeting their disarmament obligations as required by Article VI of the NPT.

3.2.4 Challenges to the Attainment of the Objectives of the NPT

(a) The Slow and Uncertain Pace of Disarmament

A significant challenge to the attainment of the objectives of the NPT is presented by the attitude of the nuclear weapon state parties towards disarmament. The NPT has been in force for four decades and while the world is still not totally free of nuclear weapons, there are no indications that it would ever

totally be. As at the year 2011, the United States of America still had a number of 8,500 nuclear warheads.

The failure of the nuclear weapon states to completely disarm after four decades of the NPT significantly undermines the treaty. It creates a double standard whereby there is expectation that non-nuclear weapon states will refrain from producing nuclear weapons while the nuclear weapon states continue to retain theirs. This situation is somewhat aided by certain inherent flaws of the NPT itself as hereunder discussed:

i. The loosely-worded provision of the disarmament pillar vs. the authoritative injunction of the non-proliferation pillar.

One of the significant flaws of the NPT is the clear distinction between the authoritatively worded specific injunction that informs the non-proliferation pillar and the vaguely worded general provision that constitutes the disarmament pillar.

Foremost, the treaty requires state parties to ‘pursue negotiations in good faith,’ leading to disarmament. It does not require state parties to immediately or within a specific time limit, undertake concrete well-defined steps to achieve complete disarmament. In other words, the undertaking that the parties have done is for the purpose of negotiations by which the terms and conditions for the cessation of the arms race, as well as disarmament would be established. Non-compliance with Article VI would, therefore, result from the failure of state parties to come together in good faith to negotiate disarmament and not their failure to embark on definite disarmament activities.

In view of the fact that the treaty obligation of disarmament is not worded in authoritative mandatory language but merely creates a platform for the establishment of another treaty on disarmament, nuclear weapon states cannot be held accountable for violating the provisions on disarmament. They can only be said to have not complied with taking definite steps to make it possible.

Conversely, the provision on non-proliferation being stated in authoritative specific language structure creates an unequivocal prohibition on nuclear weapons production and acquisition. Accordingly, non-nuclear weapon states could be successfully accused of violating the treaty where there is evidence of nuclear weapons production. This situation has created a double standard and a potential crisis with the NPT.

The double standard seems to permit NWS to hold on to their weapons since they are only treaty-bound to create a platform to negotiate disarmament while denying the NNWS the right to acquire nuclear weapons. The consequent problem which arises from this double-standard situation is that NNWS will eventually become less committed to the obligations of the treaty and even rebel against it. This has already been done by North Korea in 2003 when it withdrew from the treaty and launched its own nuclear weapons program.

ii. The absence of a specific time limit for disarmament

Another inherent flaw of the NPT, which makes it easy for the NWS to retain their nuclear arsenals and not disarm, is the absence of a specified duration within which the objective of disarmament is to be achieved. Even though the treaty requires the state parties to negotiate a treaty on complete disarmament, it did not provide a specific time limit within which such should be achieved. The treaty, by the general consensus of state parties was initially agreed to run for a period of twenty-five years; however, after twenty-five years and the objective of disarmament not achieved, at the NPT Review and Extension Conference of 1995, U.S.A negotiated for the NPT to be extended indefinitely thus removing the assumed compliance time limit for disarmament. This was done with the promise of negotiating a Comprehensive Test ban Treaty (CTBT). The treaty was duly negotiated and signed by President Bill Clinton in 1996, but the U.S Senate failed to ratify it in 1999.

(b) The Difficulty in Distinguishing Between Peaceful and Military Uses of Nuclear Energy

Another difficulty that the non-proliferation objective of the NPT faces is the inability of the safeguard system to adequately detect whether or not a state is really using its nuclear technology for peaceful purposes or diverting it to military uses. That is because uranium enrichment and plutonium separation do not violate the NPT if done for peaceful purposes under IAEA inspection. The problem is that these processes are the same used in the production of nuclear weapons and a state can easily divert the nuclear materials to military purposes, secretly.

Nuclear weapons require nuclear material – either a significant quantity of plutonium (8kg) or a significant quantity (25kg) of highly enriched uranium (HEU). Plutonium is produced during the operation of uranium-filled reactors. Highly enriched uranium could be produced in an enrichment plant which normally produces low enriched uranium (LEU) required for fuel supply to reactors. Both products are abundant in the civil fuel cycle in quantities of hundreds of tons. It follows, therefore, that states possessing nuclear plants can easily divert these nuclear materials from their appropriate uses to the production of nuclear weapons. According to William Potter,

A key problem is that it is very easy to move from peaceful to military uses of nuclear energy. The fundamental dilemma that one confronts is that there really is no clear distinction between good atoms for peace and bad atoms for war: the same technologies can, in fact, be used for necessary civilian nuclear programs, but in the hands of a state that wishes to acquire nuclear weapons; could be used for military purposes, as well.

While this can hardly be helped, since to completely disentitle the use of nuclear energy even for peaceful purposes will be counter-productive to world development, it is nonetheless a significant problem for the objective of non-proliferation.

(c) The Freedom to Withdraw from the NPT without Consequences

The NPT permits states to withdraw from it when their national interest dictates that they should. This means that a state which had successfully, illegally built its nuclear weapon capabilities, could decide that the maintenance of nuclear weapons for deterrence is a good defence policy, and then simply withdraw from the NPT and launch its nuclear weapons program shortly thereafter. An example is North Korea. It not only withdrew from the treaty but it soon after launched its own nuclear weapons program.

(d) The Absence of Disincentives to Non-Compliance

The treaty is not fortified with disincentives for the violation of its more specific and authoritative prohibitions, for example, the prohibition from transferring nuclear weapons to states. In fact, because of the double-standard it creates, non-nuclear weapon states could feel unjustly deprived of the opportunity to produce nuclear weapons in situations where violating states could simply withdraw from the treaty and immediately earn the right to launch a hitherto clandestine nuclear weapons program.

(e) Nuclear Weapon Non-Party States as Facilitators of Proliferation

Another challenge for nonproliferation is that nuclear weapon non-party states to the NPT, not being treaty-bound to obey its provisions, are alleged to be facilitating the acquisition of nuclear weapons by NNWS. It is alleged, for example, that North Korea and Iran both obtained enrichment technology from Pakistan. Pakistan is alleged to have traded sensitive information on the gas centrifuge uranium enrichment process, which is one of the technically complex methods for upgrading natural uranium into highly enriched uranium, in exchange for North Korean nodong ballistic missiles. Pakistan is not a party to the NPT and is not treaty-bound to obey the prohibition contained in Article II, against assisting non-

nuclear weapon states in acquiring nuclear weapons. The NPT neither addresses nor anticipates this situation.

3.2.5 NPT Review Conference

This is a conference held every five years since 1975 to review the operation of the Nuclear Non-Proliferation Treaty with a view to assuring that the purposes of the preamble and the provisions of the treaty are being realized. The significance of the NPT review conference in accordance with Article VIII of the NPT lies in the assessment of the treaty's progress in order to strengthen it; strategize to overcome its weaknesses and maximize its successes. Documentation of the conference's proceedings, recommendations and follow-up actions as the final document represents the consensus agreement of the parties and is by right a policy document. Documentation from previous conferences has provided a basic starting point for subsequent review conferences in evaluating the operation of the NPT. It also plays an important role in possible actions by the parties or relevant international bodies (such as the IAEA or UN Security Council) in response to incidents of noncompliance with relevant NPT provisions.

Of the eight conferences held since 1975, only four have successfully produced a final document. The conferences of 1980, 1990, 1995 and 2005 failed to successfully produce one. The reason for the failure to arrive at a consensus document has always been preceded by debate and controversy. The common reason for controversy and failure was disagreement over the nature and pace of nuclear disarmament in fulfillment of Article VI of the NPT. The slow and uneven pace of progress regarding the implementation of Article VI commitments has generated wide-ranging and deep-seated dissatisfaction among the preponderant majority of the non-nuclear weapon states.

(a) The 2010 NPT Review Conference

The 2010 NPT Review Conference was attended by representatives from 172 states, the IAEA, 9 intergovernmental organizations and 120 non-governmental organizations. After four weeks of discussion, the conference produced a final document which reflects the agreement of state parties on 64 recommended actions covering nuclear disarmament, nonproliferation, nuclear energy for nonmilitary purposes, and a conference to facilitate progress on eliminating nuclear, chemical and biological weapons from the Middle-East.

In the document the key points made on nuclear disarmament centered around the need for the nuclear weapon states to achieve nuclear disarmament in accordance with Article VI of the NPT. The conference reaffirmed the unequivocal undertaking of the nuclear weapon states to accomplish the total elimination of their nuclear arsenals, leading to nuclear disarmament to which all states are committed under Article VI. In implementing the undertaking, the nuclear weapon states, as part of their action plan, commit to undertake further efforts to reduce and ultimately eliminate all types of nuclear weapons, deployed and non-deployed, including unilateral, bilateral, regional and multilateral measures. And they commit to apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations.

The conference stressed the need to adhere to the steps leading to nuclear disarmament as enumerated in the final document of the 2000 NPT Review Conference. The Nuclear Weapon States thereby commit to accelerate concrete progress on the steps leading to nuclear disarmament, contained in the Final Document of the 2000 NPT Review Conference, in a way that promotes international stability, peace and undiminished and increased security. To achieve this objective, concrete, well-defined steps were enumerated for the nuclear weapon state parties to include:

- i. Reduction in global stockpile of all types of nuclear weapons.
- ii. Address the question of all nuclear weapons, regardless of their type and location.

- iii. Diminish the role and significance of nuclear weapons in all military and security concepts, doctrines and policies.
- iv. Discuss policies that could prevent nuclear weapons use and lessen the danger of nuclear war.
- v. Consider the legitimate interest of non-nuclear weapon states in further reducing the operational status of nuclear weapons systems.
- vi. Reduce the risk of accidental use of nuclear weapons.
- vii. Further enhance transparency and increase mutual confidence.

The conference also took note of the five-point proposal for nuclear disarmament of the Secretary General of the UN, which proposes inter alia, consideration of negotiations on a nuclear weapons convention or agreement on a framework of separate mutually reinforcing instruments, backed by a strong system of verification.

Regarding the much-stressed need for a timeline on disarmament, the conference affirmed that measures related to the nuclear disarmament process should be pursued within an agreed legal framework, which a majority of state parties believe should include specific timelines. In addition to that, as part of the action plan, all states agree that the Conference on Disarmament should immediately establish a subsidiary body to deal with nuclear disarmament within the context of an agreed, comprehensive and balanced program of action. All the undertakings stipulated in the final document are to be reported to the Preparatory Committee of the Review Conference at 2014.

Regarding nuclear non-proliferation, the focus of the review conference as reflected in the final document, was strengthening cooperation of states parties with the IAEA, which is the body charged with ensuring that states use their nuclear technology for peaceful purposes only. Hence states parties were called upon to extend their cooperation with the IAEA, underscoring the importance of resolving

all cases of non-compliance with safeguards obligations in full conformity with IAEA Statute and the respective legal obligations of member states. Those states parties without comprehensive safeguards and additional protocols were urged to bring them into force as soon as possible.

Addressing the problem of the states that are not parties to the NPT, the conference called on Israel to accede to the NPT and to place all its nuclear facilities under comprehensive safeguards. The call on Israel was imperative because the Middle East was the major regional focus in the conference. In 1995, the U.S.A, UK and Russia had sponsored the resolution on a Middle East nuclear weapons free zone. In the 2010 review conference this resolution came to life with a major step to practical implementation. It was resolved that the UN Secretary General and the co-sponsors of the 1995 resolution, in consultation with the states of the Middle East, will convene a conference in 2012 to be attended by all states of the Middle East, on the establishment of a Middle-East zone free of nuclear weapons and other weapons of mass destruction.

North Korea was strongly urged to fulfill the commitments under the six party talks and return to the Treaty and adhere to its IAEA safeguards agreement. India and Pakistan were not mentioned in the Action Plan.

(b) Analysis

Although four decades have passed since the NPT came into force and eight review conferences were held, the words being used to frame disarmament policy have maintained a consistent passive pattern. In other words, since 1970, what nuclear state parties have been doing by treaty and subsequent policy documents are making undertakings, expressing commitments and affirmations of earlier undertakings. Even where the conference refers to the 2000 final document as a step-by-step program of action, it can be seen that the program of action generally calls upon state parties to “discuss” “address” or “consider”

issues regarding nuclear weapons. Where it was stated that states should reduce nuclear weapons, such was not done emphatically within a suggested timeline and a substantive threat for non-compliance. In essence, passive words like those contained in the NPT are repeated every five years to achieve the same result of non-compliance. This has repeated itself in the very recent 2010 final document.

Analyzing the 2010 Review conference, Rebecca Johnson remarked on the issue of disarmament thus:

The review conference outcome was most disappointing on nuclear disarmament and safeguards, where it proved difficult to make any concrete commitments beyond what had already been agreed to in 2000. While all sides supported reaffirming past commitments and welcomed the new START and efforts to ratify and bring the CTBT into force, there were disappointments over feeble language on further steps and negotiations.

Furthermore, it is noteworthy that the conference only “took note” of the five-point proposal on disarmament by the UN. Secretary General. The Secretary General’s proposal, however, contains more substantive, proactive and accountable plans of action for state parties, which, if heeded to, would more likely yield positive results for disarmament. The following are synopsis of the key points of the United Nations’s Secretary General’s 5-point proposal.

- i. He recommended the negotiation of a nuclear weapons convention, or alternatively, a framework of separate mutually-reinforcing instruments with the same goal. He offered a draft model nuclear weapons convention as a good point of departure for such a treaty and circulated to all member states. Against that background he urged the nuclear weapon states to engage on this issue at the Conference on Disarmament.
- ii. Secondly, he specifically addressed the Security Council, which under the Charter has a mandate to develop disarmament proposals, and called upon it to commence discussions on security

issues in the nuclear disarmament process. He further called upon the council to convene a summit on nuclear disarmament.

- iii. The third point concerned several actions to strengthen the rule of law in disarmament, including the entry into force of the Comprehensive Test Ban Treaty, negotiation of a fissile material treaty, entry into force of the treaties establishing regional nuclear-weapon free zones in Africa and Central Asia, ratification of all the protocols to all the treaties establishing such zones, pursuit of the establishment of a regional nuclear-weapon-free-zone in the Middle-East, and a call on all NPT states to conclude their safeguards agreement with the IAEA.
- iv. Fourthly, the Secretary General put the nuclear weapon states on the spot by inviting them to send to the UN. Secretariat, descriptions of what specifically they have been doing to implement their nuclear disarmament commitments. This is with a view to improve accountability and transparency in the disarmament process.
- v. Lastly, he called for the elimination of other types of weapons of mass destruction, new efforts against WMD terrorism, limits in the production of and trade in conventional arms, and new weapons bans, including missiles and space weapons. He called on the World Assembly to convene a world summit on disarmament, non-proliferation and terrorist use of weapons of mass destruction.

It is apparent that the Secretary General's five-point proposal is a departure from the vague, general words that have been used to frame disarmament policies in review conferences of the NPT. The presentation of a model nuclear weapons convention for the consideration of state parties is a huge step towards the adoption of a binding treaty with specific rules and timelines on disarmament and an improvement on a treaty that only requires states to create a platform to negotiate a treaty on

disarmament. In essence, with this development, the review conference can be said to have created such platform.

Furthermore, the Secretary General specifically addressed the major obstacle to disarmament, which is the apparent unwillingness of the nuclear weapon states to disarm, by calling upon the Security Council which consists of these nuclear weapon states, to convene a summit on disarmament. In the most proactive manner, he raised the accountability threshold by inviting the states to show proof of their disarmament commitments to the UN. Secretariat. The weight attached to the Secretary General's five-point proposal will, however, determine how much it will influence disarmament in the future. A strong weight would obviously go a long way to achieve the goal of disarmament, in contrast to just "taking note" of it.

The reason for the failure of state parties to achieve the core objectives of the NPT after four decades and eight review conferences is not difficult to decipher. It is worthy of note that the non-nuclear weapons state parties have abided by their obligations to a very large extent. It is only in recent times that the problem of proliferation by those state parties is arising. This is not surprising since the nuclear weapon state parties have not fulfilled their own commitments, giving cause to the other parties to want to rebel against the NPT. Hence the current problems of proliferation can be linked to the long-lasting problem of disarmament.

It is a fact, however, that as the years pass by the world increasingly sees the double standard demonstrated by the world's greatest nuclear power, the United States of America, where nuclear weapons are concerned. The U.S.A is the only state in the world that has used nuclear weapons in an attack against another state. Like the other four original nuclear weapon states, it is under treaty obligation to facilitate and eventually achieve complete nuclear disarmament. While it has not lived up to this obligation, it has invested into the fight to prevent other nations from acquiring nuclear weapons.

A case in point is the allegations of potential nuclear weapons proliferation that it had been hurling at Iran, coupled with harsh measures taken against the latter.

U.S.A had consistently accused Iran of developing its nuclear capabilities to develop a nuclear bomb. The tension between the Western world and Iran had heightened since November 2011, with new findings by international inspectors, tougher sanctions by the United States and Europe against Iran's oil exports, threats by Iran to shut the Strait of Hormuz and threats from Israel signaling increasing readiness to attack Iran's nuclear facilities. Meanwhile, it has not yet been proven that Iran has actually produced a bomb. This double standard has been expressed aptly by Alice Slater, the Director of the Global Resource Action Center for the Environment (GRACE) in these words:

Technically, Iran is not yet in violation of any terms of the Non Proliferation Treaty while the U.S continues to violate it on a daily basis. If the U.S demonstrated a commitment to genuine disarmament, it would surely then have the moral authority to close loopholes in the treaty that allow nuclear power programs to be used covertly to develop nuclear weapons.

Iran had demonstrated its disgust for the double standard manifested by the world's nuclear powers, particularly the United States of America, through its leaders. The ex-Iranian President, Mahmoud Ahmadinejad was very vocal about this double standard during the 2010 NPT Review Conference held in New York in May 2010. He argued that the U.S.A, the only nation to use a nuclear bomb in war, had not lived up to its promises of nonproliferation. Similarly, in a nuclear disarmament conference in Tehran held just a month before the review conference, Iran's Supreme Leader, Ayatollah Sayyed Khamenei in a speech spoke bitterly about the attitude of U.S.A regarding nuclear weapons thus, "The deceptive policy by the sole nuclear offender, which falsely claims to be advocating the nonproliferation of nuclear arms while doing nothing substantive for this cause, will never succeed."

Indeed, the Executive Director of the New York-based Lawyers' Committee on Nuclear Weapons, John Burroughs had linked the reluctance of the U.S.A to let go of its nuclear weapons with the refusal to show any flexibility about arms control steps like negotiation of a verifiable treaty banning production of fissile materials – plutonium and highly enriched uranium – for nuclear weapons.

The provisions of the NPT regarding disarmament make it convenient for the nuclear weapon state parties to ignore their commitments to the treaty. In a consistent pattern, they have maintained the status quo by using non-proactive, repetitive language in review conferences, regarding disarmament. In review conferences where the non-nuclear weapon states have tried to push for proactive actions towards disarmament, there had been failure to arrive at a consensus between the state parties and consequently, a failure to arrive at a consensus final document. The only logical conclusion to derive from the foregoing is that the nuclear weapon states do not want to disarm and they do not have intentions to so do.

Very significantly, the nuclear weapon state parties to the NPT are also the five members of the United Nations Security Council. They are the ones who are charged with the authority to place sanctions on states that are violating or not complying with international law. In other words, they are the most powerful nations in the world. If they are in violation of international law or not compliant to it, it would be absurd to suppose that they would place sanctions on themselves. Herein lies the stumbling block to progress of the NPT, aside from its inherent shortcomings. Ultimately, it can be predicted that the same pattern will repeat itself in years to come and in the next review conference of 2015. Predictably, nuclear weapon states would continue to harbour nuclear weapons as part of their defence mechanisms and non-nuclear weapon states would increasingly feel unjustly prevented from producing their own nuclear weapons.

3.3 The Comprehensive Test Ban Treaty, 1996 (CTBT)

The Comprehensive Test Ban Treaty is the second most important multilateral treaty on nuclear weapons after the NPT. It was negotiated in Geneva by the Conference on Disarmament and was adopted by the General Assembly of the UN. as a resolution on 10th September, 1996. It also opened for signature in September, 1996.

The CTBT is the result of a long-term search for a permanent solution to the harmful effects of nuclear testing. The goal of prohibiting nuclear testing was first advanced in the early 1950's as a result of public apprehension over radioactive fallout from atmospheric nuclear tests. However, it was preceded by other arms control treaties, which sought to limit only the nuclear weapons of the nuclear weapons states. In 1963 the Partial Test Ban Treaty was signed. It prohibited nuclear tests in the atmosphere, in space and underwater, but not underground. The progress made by the treaty was aimed at assuring that the radioactive products of nuclear tests are not released into the atmosphere, but kept underground.

The CTBT is major in a significant way because its principal goal is to ban all nuclear tests, anytime, anywhere and comprehensively or completely. In order to launch a nuclear weapon, states ideally undertake nuclear tests. Consequently, one way to prevent non-nuclear weapon states from acquiring nuclear weapons, as well as nuclear weapon states from acquiring more is to prevent them from testing new weapons. This will also go a long way to ease the environmental degradation caused by nuclear weapon testing.

It can be gleaned from its preamble that the CTBT does not present itself as a treaty on total disarmament of nuclear weapons. While acknowledging the need for general and complete disarmament under strict and effective international control, it stresses the need for continued systematic and

progressive efforts to reduce nuclear weapons globally. It is essentially a treaty for the cessation of all nuclear weapons test explosions and all other nuclear explosions.

3.3.1 Obligations of State Parties

The CTBT binds state parties by an undertaking not to carry out any nuclear weapon test explosions or any nuclear explosion and to prohibit any such nuclear explosion at any place under its jurisdiction or control. Further to that, the state parties are prohibited from causing, encouraging or participating in any way, in the carrying out of any nuclear weapon test explosion or any nuclear explosion.

The objective of these prohibitions is unequivocally to hinder the proliferation of nuclear weapons by ensuring that no new or advanced nuclear weapons are produced by nuclear weapon states and that no non-nuclear weapon state launches a nuclear weapon. This is because testing of nuclear weapons is significant in determining the yield and potency of the weapons. Nuclear tests could be carried out for several purposes. They could be carried out for weapons development or improvement, to ascertain weapon effects, to study the phenomena of the explosion and for safety tests; to study what would happen in an accident.

To achieve its objective, the treaty established the Comprehensive Nuclear Test Ban Organization of which all state parties are members. The organization has as its organs the Conference of the State Parties, the Executive Council and the Technical Secretariat. The treaty contains elaborate provisions for the functions and procedures of the organs of the organization.

The primary obligation on state parties under the treaty is that of restraint; to refrain from performing an act, namely, the testing of nuclear weapons. State parties are, however, required to assume more active roles in ensuring that the provisions of the treaty are implemented. Accordingly, they are required to take the necessary measures in accordance with their constitutional processes, to

implement their obligations under the treaty. Secondly, and in the context of the CTBT, each state party is further required to enact specific national laws prohibiting natural and legal persons from testing nuclear weapons anywhere in its territory or in any place under its jurisdiction or under its control. It is further obliged to prohibit natural persons possessing its nationality from undertaking such activity anywhere.

The foregoing provisions raise the expectations that a state party would enact national penal laws to prohibit natural and legal persons appropriately, as well as allot punishment for the violation of the prohibition. What appears to be ironic in these provisions, however, is that so far in history, state entities have been the ones primarily responsible for producing and testing nuclear weapons. If nuclear weapons are to be tested on the soil of any state, it is most likely going to be done by legitimate representatives of the government. In requesting state parties to enact laws to punish potential violators of the treaty, the treaty might very well request that states enact laws that would potentially work against them. This is because even if states participate in the negotiation of a treaty, thereby fulfilling their responsibilities under international law, when the issue of implementation of that treaty comes to the fore, a state is likely to weigh its international obligation against its national interest and act in favor of the latter. If a state considers the maintenance of nuclear weapons or the attainment of same in future a viable defense strategy and in its best interest, the parliament of that state may refrain from making laws poised to punish the state for supposedly ‘safeguarding the national interest.’

For the national implementation of its treaty obligation, each state party is bound to designate or set up a National Authority which shall serve as the national focal point for liaison with the Organization and with other state parties.

3.3.2 Measures for Attaining the Objectives of the Treaty

To achieve its objective of preventing states from testing nuclear weapons the treaty provided a verification system which consists of:

1. An International Monitoring System
2. Consultation and clarification
3. On-Site Inspection
4. Confidence Building Measures

The verification regime is a participatory system where all state parties are involved in ensuring compliance of each other to the treaty's obligations. For example, the international monitoring system is placed under the authority of the Technical Secretariat and all its monitoring facilities shall be owned and operated by the states hosting or otherwise taking responsibility for them. The treaty instructs and assures state parties that verification activities shall be based on objective information, shall be limited to the subject matter of the treaty, and shall be carried out on the basis of full respect for the sovereignty of state parties and in the least intrusive manner.

The International Monitoring System is scientifically based. It comprises facilities for seismological monitoring, radionuclide monitoring, including certified laboratories, hydroacoustic monitoring, infrasound monitoring and respective means of communication.

Under the treaty, any state party has a right to request an on-site inspection of another state, if it suspects that the state has violated the treaty by illegally testing nuclear weapons. However, the treaty provides for consultation and clarification between the requesting state and the suspect state, involving the organization if necessary before that right is utilized. In the process of consultation, it might be that the requesting state would be given clarification as to activities of the suspect state which may give an alternative explanation to the activities of the suspect state.

The provision for consultation and clarification indeed goes to the root of enhancing diplomatic relations between states and averting situations whereby the treaty unduly severs relations between states which may occur when one erroneously ‘reports’ another to the organization by requesting an on-site inspection of that state. For the on-site inspection to be approved by the Executive Council of the Organization, however, thirty of the member states have to vote in favor of the inspection. This provision is presumably made to avoid a situation whereby if only a few votes were required; the allies of the requesting state may collectively and easily give their votes not based on objectivity, but in support of their ally. The requirement of thirty votes makes that unlikely.

Some analysts, however, regard the procedural requirement for thirty states to agree to an on-site inspection of a suspected testing site problematic, stating that the U.S.A or any other state seeking on-site inspection might find it politically difficult to attain the requisite number of concurrences to conduct such an inspection.

As a confidence-building measure, the treaty requires states to notify the CTBT Technical Secretariat of any single chemical (non-nuclear) explosion in their territories or under their jurisdictions involving more than 300 tons of TNT-equivalent. This measure is designed to help resolve possible misinterpretation of verification results and avoid frivolous on-site inspections. In order to promote compliance with the treaty obligations, states that fail to address compliance measures within a specified time will suffer suspension of their treaty rights and privileges.

3.3.3 Implementation of the Treaty

The treaty has not been implemented to any degree or at all because it has not come into force since it opened for signature in 1996. The reason for this is attributed to the stipulation that all 44 countries with nuclear plants as at 1996 must ratify it before it becomes legally binding or enters into force. So far it has been signed by 183 states and ratified by 157. Out of those 44 nuclear capable states, 36 have

ratified it. Three have not even signed it. The eight nuclear- capable states that have not ratified it and are thus preventing the treaty from becoming operational are, Democratic People's Republic of Korea, Egypt, Iran, China, Israel, Pakistan, India and U.S.A. The three states that have not signed it are India, Pakistan and Democratic People's Republic of Korea. Hence the CTBT has been redundant since it opened for signature in 1996.

The treaty, however, provides that if entry-into-force had not been achieved within three years, a conference of the states which had ratified the treaty could be convened to consider the extent to which the 44 accessions have been achieved and 'to consider and decide by consensus what measures consistent with international law may be undertaken to accelerate the ratification process in order to facilitate the entry-into-force of this treaty.' Fifteen years after the signing of the treaty, however, this option has not been utilized by the state parties.

3.3.4 Challenges to the Attainment of the Objectives of the CTBT

The foremost challenge to the attainment of the treaty's objectives is found in Article XIV - The Entry-into-force (EIF) provision. The fact that eight out of 44 nuclear capable states have refused to ratify it raises the presumption that these states might nurture prospects of either producing advanced nuclear weapons in the future or launch nuclear weapons programs. This is more so in the case of the United States of America.

The failure of the U.S.A to ratify the CTBT has negative consequences for the entry-into force of the treaty. Firstly, the U.S.A is the biggest nuclear weapons state. Considering that Russia, the second biggest nuclear weapon state has ratified the treaty, ratification by U.S.A would be a significant signal to other states of its intention to finally get rid of its nukes. This could effectively be the motivation for other nuclear capable states that have not ratified it to so do. As a matter of fact, some of the states had

expressed that if U.S.A ratified the treaty, they would follow suit. In 2009, the Indonesian Foreign Minister, Hassan Wirajuda addressed the Carnegie Endowment for International Peace in Washington and announced that if the U.S.A ratified the CTBT, Indonesia would also take steps to ratify it.

Secondly, the CTBT was the pawn used by President Bill Clinton in the NPT Review Conference of 1995 to negotiate and successfully secure the indefinite extension of the duration of the NPT from its initial 25 years. Hence the U.S.A was reasonably expected to take the lead in ratifying it. However, against the seemingly well-intentioned proposal of the President to have the treaty ratified by the country, the Senate failed to give its consent to the ratification of the CTBT. In her speech about the 'Status and Prospects for the CTBT' on 26th September 2012, Ms Rose Gottemoeller, U.S Acting Under Secretary for Arms Control and International Security, explained that the Senate's lack of support for the CTBT twelve years ago stemmed from concerns regarding the verifiability of the treaty and the ability to ensure the continuing safety and reliability of America's nuclear deterrent without nuclear explosive testing.

The failure of the Senate to ratify the treaty was, therefore, the result of the Senate's consideration of the United State's national interest in safeguarding its defence system against the country's international obligation to ensure a world that is rid of nuclear weapons. This is apparently a backlash from the comprehensive character of the treaty. The treaty established a global network of 321 internationally maintained monitoring stations to detect clandestine explosions, and it provided for on-site challenge inspections in cases of doubt. With nuclear tests prohibited, the safety and reliability of the U.S nuclear arsenal would be maintained through a \$4.5-billion-a-year stockpile stewardship program, using supercomputer simulations, laser blasts, and subnuclear tests of components, including the high explosives used to trigger atomic bombs.

The U.S.A lawmakers had three basic arguments against the treaty. First, they did not believe that the safety and reliability of the existing U.S nuclear arsenal could be assured indefinitely without tests of complete weapons. Overtime therefore, the lack of testing could weaken the American deterrent. The second point of concern related to whether the treaty had the authority to actually stop nuclear testing and weapons development by other nations, and the third, if the treaty's monitoring and verification system was competent to detect cheating. If the treaty failed to stop nuclear proliferation abroad, while retarding nuclear weapons development at home, Republicans thought the effect on American security might be catastrophic. Ultimately, therefore, domestic policy overran foreign policy in the decision whether or not to ratify the CTBT, reasonably leading to the conclusion that U.S.A's failure had caused a setback in the progress of the treaty by signaling to other states to do the same.

Aside from the reluctance of the U.S.A to ratify the treaty, however, other factors have contributed to the refusal of other states to ratify it. Most of the nuclear capable states that refused to ratify or even sign the treaty appear to have considerations of national interest peculiar to them. Pakistan, for instance, in deciding whether or not to sign the treaty had to consider the position of its arch rival, India and the danger it would subject itself to in signing away its right to produce new, advanced nuclear weapons. Considering that India has not signed the treaty puts Pakistan in a vulnerable position if it signs it. Pakistani analysts have expressed their concern and advised that Pakistan be ready for any eventuality in the region, given its strategic dynamics with India and also because of the presence of extra-regional forces which make South Asia highly vulnerable and any arms control agreement inoperable. Therefore, Pakistan should retain the option of testing of its nuclear arsenal to maintain and enhance the credibility of its deterrence.

One of the obvious truths regarding the CTBT which runs counter to its universal ratification and which creates double standards is the fact that the treaty seeks to prevent non nuclear weapon states

from obtaining nuclear weapons by prohibiting them from nuclear testing but allows nuclear weapon states to retain existing weapons. This is because the treaty is unpretentiously a treaty on nuclear testing and contains no provisions for disarmament. Furthermore, prohibition from nuclear testing in the treaty does not preclude alternative testing by highly technologically advanced countries. The U.S.A Administration, for instance, committed 4.5 billion dollars annually for computer simulations and weapon inspection and surveillance. The treaty does not prohibit the testing of nuclear weapons' accuracy by the use of computer technology. The verification of performance of existing nuclear weapons in the arsenals of nuclear armed states may be achieved by advanced computer technology at very high costs. In other words, even if it had signed the CTBT, the U.S.A could still test its nuclear weapons with alternative advanced technology. The U.S.A had established a number of programs that work together to maintain a safe, secure and effective nuclear stockpile in the absence of underground nuclear explosive testing. They include:

- i. The Stockpile Stewardship Program (SSP)
- ii. The Life Extension Programs (LEP's)
- iii. Annual Assessment Process of the U.S Nuclear Weapons Stockpile
- iv. Infrastructure Modernization

In essence, U.S.A and any other nuclear armed state that can afford it would be able to maintain and test the performance of its existing stockpile of nuclear weapons with alternative advanced technology in the absence of explosive nuclear testing.

India had never manifested a leaning towards becoming party to the CTBT. From the time of the treaty negotiations India had opposed it because it believed that Article XIV, the entry-into-force Article violated its sovereignty. India viewed it as “unprecedented in multilateral negotiations and international

law that any sovereign country should be denied its right of voluntary consent on adherence to any treaty”

Israel, also one of the 44 nuclear capable states, in its decision whether or not to ratify the treaty considered regional concerns, particularly with its isolated position in the Middle-East. The belief in the region of Iran’s potential nuclear superiority and the likelihood of other countries following suit is an effective deterrent to Israel from letting go of its right to produce nuclear weapons. Israel has concerns about ratifying the treaty in certain areas. One has to do with the organization’s completion of the inspection system provided for in the treaty. Completion of the International Monitoring System; the system of receiving and analyzing signals recorded by the International Data Centers, and the formulation of inspection processes – especially those relating to on-site inspection – are necessary in order to prevent the misuse of the treaty’s surveillance system to expose sensitive security information or to create political pressure. There have in recent years been progress towards completing the verification system, but there are significant things that are left to be done. Among them is agreement on the set of procedures to be used in guiding on-site inspections; the purchasing of proper equipment, training the inspectors and operating the monitoring stations in key areas, primarily in the Middle-East. In essence, the concern of Israel borders on the likelihood that sensitive security non-nuclear areas of its territory might be violated if the inspection system is not sufficiently competent. In other words, one of the pre-conditions of it ratifying the treaty is that the verification system should be perfectly in order.

Secondly, Israel is concerned about its right to equal status in the region. The treaty provides under Article 2(c) for the CTBTO’s Executive Council to be appointed by dividing up into regional (geographic) frameworks that elect their own representatives. According to the regional division determined by the treaty, Israel lies in the Middle-East and South Asia Region. This regional grouping, however, is currently non-operational due to Iran’s refusal to participate in any group that includes

Israel. As such Israel's right to equal opportunity is hindered by the organization responsible for implementation of the treaty.

The conclusion that may be drawn from the foregoing analyses is that if the option of convening a conference to accelerate the entry-into-force of the CTBT is never initiated, then it might just as well be that the treaty will never become operational. It is highly likely that some nuclear capable states would never ratify the treaty. This presumption is drawn from the fact that certain states of the international community namely, India, Pakistan and Israel have not signed the Non-Proliferation Treaty and both India and Pakistan have refused to sign the CTBT while Israel has signed but refused to ratify it. The posture of these states indicates their intention not to be bound by any law which seeks to limit their capacity to possess and produce nuclear weapons.

3.3.5 The CTBT and the Fissile Material Cut-off Treaty (FMCT)

The CTBT has always been associated with the idea of a fissile-material cut-off treaty. Another way of ensuring elimination of nuclear weapons is by preventing the means of producing nuclear weapons by cutting-off the production of fissile material for weapons uses. This is currently represented by a proposal for a fissile material cut-off treaty. On 27th September, 1993, President Bill Clinton in a speech before the United Nations Organization called for a multilateral convention banning the production of fissile materials for nuclear explosives or outside international safeguards. In December 1993, the U.N. General Assembly adopted a resolution calling for the negotiation of a "non-discriminatory, multilateral and internationally effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices." The Geneva-based Conference on Disarmament on 23rd March agreed to establish a committee to negotiate such a treaty.

Fissile materials are those elements that ‘can sustain an explosive fission chain reaction’ and ‘are essential in all nuclear explosives,’ the most common being highly enriched uranium and plutonium. Fissile materials can, however, be non-explosive when they are produced for civilian purposes. The same fissile materials used to produce nuclear energy, nuclear medicine, materials for industrial uses, when enriched beyond their civil capability needs would be sufficient to produce nuclear weapons. The idea of cutting off the production of fissile materials, therefore, refers to prohibiting the production of fissile materials for explosive purposes.

The debate over the fissile materials cut-off treaty has been in existence since the end of the Cold War and has been a dragging issue. This state of affairs can be attributed to the big controversy surrounding the issue. On one hand, nuclear weapons possessors agree and advocate the adoption of a treaty that would prohibit the further production of fissile material for explosive purposes. On the other hand, non-nuclear weapons possessors are clamoring for a treaty which, not only prohibits the future production of fissile materials for weapons purposes, but one that also addresses or calls for the elimination of existing stockpiles of weapon-usable fissile material.

It is not difficult to understand the division in opinion between the nuclear ‘haves’ and ‘have nots.’ Clearly, the prohibition of production of fissile material for explosive purposes would legally bar a non-nuclear weapon state that possesses nuclear technology from using its technology for military purposes. If existing stockpiles of fissile materials are also prohibited, that would also ensure that the nuclear weapon states would not produce another weapon with materials at their disposal, but would rather get rid of those stockpiles. This has not been a convenient option for the nuclear weapon states and has resulted in the stalemate over the proposed treaty.

Another issue to be addressed, also, is the problem of fissile material which has been declared in excess of weapons needs. That is to say, weapon-grade or weapon-usable fissile material which is no

longer required for nuclear weapons. Such materials, if not eliminated, could get into the wrong hands, for example, into the hands of terrorists who have the means and technical knowledge to convert them into nuclear weapons.

The prohibition of the future production of fissile material for weapons uses will, however, still not ensure that nuclear weapons will not be produced. For as long as the production of fissile material for civil purposes is permitted, the producers can always, if they wanted to cheat, divert the materials for military purposes, for example, enrich uranium far and above what is needed for civil use and use it to produce nuclear weapons. The relevance of the proposed treaty, therefore, lies in the fact that an international norm would have been established for the prohibition of fissile material.

Although it is not yet a treaty, taken together, the CTBT and draft FMCT are integral components of the nuclear control regime and are frequently associated.

3.4 The Nuclear Weapons Free Zone Treaties

A Nuclear-Weapon-Free-Zone is any zone recognized as such by the General Assembly of the United Nations, which any group of states in the free exercises of their sovereignty, has established by virtue of a treaty or convention whereby:

- i. The Statute of total absence of nuclear weapons, to which the zone shall be subject, including the procedure for the delimitation of the zone, is defined.
- ii. An international system of verification and control is established to guarantee compliance with the obligations deriving from that statute.

A nuclear-weapons-free-zone is, therefore, a regional undertaking not to indulge in the production, use and any other act related to nuclear weapons other than their destruction or conversion to peaceful uses. This kind of regional undertaking has been anticipated and encouraged by the Nuclear Non-

Proliferation Treaty as part of the global participation in non-proliferation efforts which provides as follows, “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”

However, the call to have a treaty or convention establishing nuclear weapon free zones in the world pre-dates the NPT. In March 1956, a proposal was presented by the Soviet Union to the United Nations Committee on Disarmament which sought to obtain partial arms restrictions, the establishment of regions under constant inspection as well as a prohibition of the stationing of nuclear equipped forces, nuclear weapons and hydrogen weapons, on German soil and neighboring states. The proposal was re-submitted in a more sophisticated form to the U.N General Assembly by the Foreign Minister of Poland in 1957. However, the idea to establish a denuclearized zone in Central Europe was suppressed due to the Cold War. There currently exist five nuclear weapon free zones (NWFZ) in the world by virtue of five multilateral treaties:

- i. Latin and Caribbean NWFZ created by the Treaty for Prohibition of Nuclear Weapons in the Caribbean (Treaty of Tlatelolco) 2002.
- ii. South Pacific NWFZ created by the Rarotonga Treaty, 1985.
- iii. Southeast Asia NWFZ created by the Bangkok Treaty, 1995.
- iv. African NWFZ created by the Pelindaba Treaty, 1996.
- v. Central Asian NWFZ created by the Semipalatinsk Treaty, 2006.

3.4.1 The African NWFZ Treaty (Treaty of Pelindaba) in view

This treaty contains elaborate provisions by which parties undertake not to conduct research on, develop, manufacture, stockpile or otherwise acquire, possess or have control over any explosive device by any means anywhere. The treaty prohibits seeking or receiving any assistance in any activity relating to the

foregoing. Conversely, it prohibits assisting or encouraging any of the prohibited acts. The treaty also prohibits the stationing of any nuclear explosive device on any African territory. Furthermore, it prohibits the testing of any nuclear weapon by a state party, as well as the testing of such on its territory and the assistance and encouragement of the testing of any nuclear explosive device by any state anywhere. Other provisions of the treaty are for the declaration, dismantling, destruction or conversion of nuclear devices and the facilities for their manufacture and for the prohibition of dumping of radioactive wastes. Yet other provisions relate to the peaceful uses of nuclear technology in accordance with IAEA guidelines and safeguards. As mechanism for compliance with its provisions, the treaty created the African Commission on Nuclear Energy.

3.4.2 Other NWFZ Treaties

The other nuclear weapon free zone treaties have basically the same provisions regarding the renunciation of nuclear weapons and the peaceful uses of nuclear weapons in accordance with the guidelines of the IAEA. The Treaty of Tlatelolco, perhaps because it was the first of the five, is not as comprehensive as the others. It does not expressly state that parties should destroy or dismantle the nuclear devices already at their disposal. However, what appears to be unique to the Tlatelolco Treaty is that it addresses the issues of non-compliance with and violation of the treaty by state parties. Other NWFZ treaties only provide for a control system to verify compliance with the treaty without more. The Tlatelolco Treaty provides that the General Conference shall draw the matter of non-compliance, in its event, to the non-complying party, making recommendations as it deem fit. If non-compliance constitutes violation of the treaty, it shall report the matter simultaneously to the U.N. Security Council, the U.N. General Assembly and the Council of the Organization of American States. The General Conference shall also report to the IAEA.

Both the treaties of Rarotonga and Semipalatinsk are considered a great improvement on the Tlalelolco Treaty because both banned nuclear explosions even for peaceful purposes. The Semipalatinsk Treaty being the most recent is even more innovative in its provisions. For one, it expressly recognizes the Comprehensive Test Ban Treaty in its prohibition of nuclear weapons or other nuclear devices testing. It also uniquely provides for the physical protection of nuclear material, equipment and facilities in order to prevent the unauthorized use or handling or theft; and measures to take towards that precaution. The Bangkok Treaty also reflects the traditional provisions of the other NWFZ treaties.

3.4.3 Significance of NWFZ Treaties

i. The NWFZ treaties are comprehensive. They embody the core aspects of two fundamental treaties, the NPT and the CTBT. Hence in the NWFZ treaties, provisions for disarmament and against non-proliferation and testing of nuclear weapons are all provided for.

ii. They prohibit the stationing of nuclear weapons on the zones, thus covering a lacuna in the NPT. Although the NPT prohibits states from transferring nuclear weapons to non-nuclear weapon states, it does not make any provision for stationing nuclear weapons on the lands of such states as is being done by NATO countries on behalf of the U.S.A. Consequently, if NATO countries are to be covered by NWFZ treaties, they would be obliged to dismantle the weapons on their land independent of the instructions of the U.S.A.

iii. These NWFZ treaties are security for the zones that have gone into the agreement. The nuclear weapon states have in exchange for the commitment of these zones to stay-off nuclear weapons,

guaranteed that they would not be targeted by nuclear weapon states. The treaties in their protocols established the ground for negative security assurances by which the state parties required to ratify it, usually nuclear weapon states, undertake not to use a nuclear weapon or other nuclear explosive device against any state party of a nuclear weapon free zone treaty. A negative security assurance is the promise of a nuclear weapon state to 'not use' nuclear weapons against non-nuclear weapon state parties to the non-proliferation treaty and the nuclear weapon free zone treaty.

iv. Another notable significance of the NWFZ treaties is that states are able to protect their environment from the harmful or destructive actions of nuclear weapon states. For example, states in the South Pacific who signed the Rarotonga Treaty were not only concerned with nuclear testing in their region. They were also worried about the dumping of nuclear wastes at sea, fearing radioactive contamination of the marine environment. By establishing a nuclear free zone and prohibiting anyone from dumping radioactive wastes in their sea or territory, they are empowered to protect their environment under international law.

3.4.4 Implications of NWFZ Treaties

The most obvious implication of ratifying the nuclear weapons free zone treaties is that the parties have undertaken never to produce or use nuclear weapons or to have anything to do with nuclear weapons. The question that arises, however, is whether or not the treaty binds all states in a region in respect of which the treaty has come into force even if not all states in the region have ratified it. In the law of treaties, a treaty binds only a state that has ratified it. The NWFZ treaties, however, do not require all the states in a region to ratify before they come into force. For example, out of the 53 states of Africa, 28 states are required to ratify the treaty of Pelindaba before it comes into force. Accordingly, what this

implies is that the treaty of Pelindaba can only ensure that state parties do not produce, use or abet the production or use of nuclear weapons. It cannot ensure that nuclear weapons would never be produced or used in Africa, unless all African states ratify it.

Another notable implication is that the NWFZ treaties have further crystallized the distinction between the nuclear '*haves*' and '*have nots*' which was made by the NPT. This is because the five nuclear weapon states do not belong to any of the regions in respect of which the treaties have been made. Conversely, all the NWFZ treaties cover states that are identified as non-nuclear weapon states under the NPT. Today 74% of all the territories not encompassed by nuclear weapon powers (including Antarctica) are situated within nuclear weapon free zones, including 99% of all the land in the Southern Hemisphere. Out of 195 states, 144 belong to such denuclearized zones, comprising about 1.8 billion people who do not live under the umbrella of nuclear war.

In other words, the regions that have declared themselves nuclear weapon free zones are really currently not a nuclear danger to the world. The states that are regarded as nuclear threats, which are not among the traditional nuclear weapon states, are not states that belong to these zones. Iran and Israel for instance, belong to the Middle-East. The Middle-East has not yet declared itself a nuclear weapon free zone although preparations are underway to declare it. However, from the behavior of these states towards the NPT and CTBT, it is unlikely that they would honor a nuclear weapon free zone treaty in the Middle-East. North Korea, another problematic nuclear power belongs to Northeast Asia, another region that has not been declared a nuclear weapon free zone. In essence, while regional approaches to nuclear non-proliferation are undoubtedly positive steps in the global movement against nuclear weapons, the NWFZ current status could be viewed as crystallizing the position of nuclear weapon states as the world nuclear powers, particularly if read along with their failure to fulfill their disarmament obligations under the NPT.

3.4.5 Challenges of the NWFZ Treaties

One obvious challenge in the context of NWFZ is enforceability in a region where a state already possesses nuclear weapons like India and Pakistan, and such state refuses to sign the treaty. There is presently no provision in the NWFZ treaties that addresses that issue. If for example, that treaty eventually materializes in the Middle-East, what will be the fate of Israel and Iran, two states that have adamantly refused to sign the CTBT and in the case of Israel, even the NPT?

3.4.6 Is a Middle-East Nuclear Weapon Free Zone Realizable?

For many years efforts have been made to establish the Middle-East as a nuclear weapon free zone. It has been a pivotal issue of discussion in NPT review conferences and particularly in the 2010 NPT review conference. It has, however, proven more difficult to achieve the goal of a Middle-East nuclear weapon free zone in contrast to the other five zones already established. One reason for this state of affairs is because the situation in the Middle-East is peculiarly complex compared to the other regions. The Middle-East region already has a state that possesses nuclear weapons, 'Israel.' Furthermore, it hosts what in recent times has been regarded as the greatest nuclear threat to the international community, 'Iran.' Notwithstanding Iran's claims to peaceful uses of nuclear technology, it is widely believed by the international community, backed by evidence from the IAEA, that it has gone far in its preparations to prepare a nuclear bomb. The IAEA reported on 17th November, 2012 that Iran had completed the enrichment of its underground nuclear facility. If the Middle-East is declared a nuclear weapon free zone, it means Israel would have to destroy its nuclear weapons. It also means that in

addition to its NPT obligations, Iran would be further obligated not to produce a nuclear bomb. All that would become relevant, however, only if both Israel and Iran agree to become parties to the treaty.

On the other hand, if a Middle-East nuclear weapon free zone is established without the two nuclear significant Middle-Eastern states, Iran and Israel becoming parties to and ratifying it, that would make nonsense of the goal of the treaty. However, from their nuclear postures and the intricate relationship between both states, it seems highly unlikely that both would accept to be bound by a nuclear weapons free zone treaty. The reason for the nuclear postures of the two states as evidenced by the utterances of their leaders and policy makers is because both states have shared a history of hostility towards each other and it would not be in the best security interest of either to deny themselves the right to possess nuclear weapons.

Although Israel and Iran had been allies in the years before the Iranian revolution in 1979, the 1980s marked the beginning of enmity between the two states. Some analysts have linked the change in the dynamics of the relationship between Israel and Iran to the Iranian government's adoption of a religious Islamic ideology which labeled and alienated Israel as a 'Zionist state' and created rivalry between the two countries. In 1982, Israel invaded neighboring Lebanon to destroy the PLO and install a friendly Christian government in Beirut. Within days Tehran deployed Revolutionary Guard Corps (IRGC) in eastern Lebanon to show support for their *Shiite* brethren. Iran trained and equipped a small *Shiite* splinter group that evolved into a highly capable *Hezbollah* militia with a network of social services for Lebanon's largest sect. *Hezbollah* soon became Israel's deadliest threat, responsible for dozens of attacks against Israeli troops in Lebanon. By 2000, Israel finally withdrew its troops from Lebanon. In the decade following its withdrawal, Israel concluded that Iran was, in effect, at war. Indeed, many other incidents deepened the Iran and Israeli gulf of enmity

With these hostile currents between Israel and Iran and a history of proxy warfare with Lebanon in the middle, Israel would understandably be threatened by the notion of Iran becoming nuclear armed, especially as Iranian leaders have been passing strongly-worded rhetoric about the elimination of the Israeli state. In September 2012, ahead of the Annual United Nations General Assembly Session in New York, then Iranian President, Mahmoud Ahmadinejad proclaimed publicly that Israel had no roots in the Middle-East and would be ‘eliminated.’ He stated, “we don’t even count them (Israel) as any part of any equation for Iran. During a historical phase they represent minimal disturbances that come into the picture and are then eliminated.”

This declaration is reminiscent of the Iranian leader. In 2005, Ahmadinejad called Israel a ‘tumor’ and echoed the words of the former Iranian Supreme leader, Ayatollah Khomeini by saying that Israel should be ‘wiped off the map.’ The Prime Minister of Israel, Benjamin Netanyahu had warned the international community of Iran’s impending production of a nuclear bomb, threatening many times that Israel would strike Iran with a war. On September, 27, 2012, he demonstrated Iran’s progress before the United Nations General Assembly by holding up a cartoon-like drawing of a bomb with a fuse and literally drew a red line just below a label reading, ‘final stages to a bomb,’ in which Iran was 90% along the path of having sufficient weapons grade material.

On its part, Iran had always raised concerns about the fact that Israel possessed nuclear weapons, it had refused to be a party to the NPT or any nuclear weapons treaty and it is also a strong ally of the U.S.A, the world’s nuclear superpower. If a nuclear weapons free zone treaty came into being and Israel remained consistent with its nuclear posture, Iran would obviously not commit itself to another treaty that would deny it the right to ever produce its own nuclear weapons as a deterrent to its arch enemy, Israel.

3.5 The Statute of the International Atomic Energy Agency (IAEA), 1956

The IAEA Statute is primarily a statute for the regulation of the peaceful uses of nuclear energy. The Agency itself was built for that purpose. The fact that nuclear technology has multidimensional benefits to mankind and the fact that it has acquired an indispensable status means that mankind has to find a way to enjoy its benefits and still avoid the harm that may accrue from its diversion from peaceful to military uses. This heralded the establishment of an agency whose objective is to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world.

In its regulation of the use of atomic energy, to ensure that it is not used to further any military purpose, the IAEA prevents the proliferation of nuclear weapons. One of its functions under the statute is to establish and administer safeguards designed to ensure that:

Special fissionable or other materials, services, equipment, facilities and information made available by the agency or at its request or under its supervision or control are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties, to any bilateral or multilateral arrangement, or at the request of a state, to any of that state's activities in the field of atomic energy.

It is by virtue of this authority that many non-proliferation treaties, for example, the Nuclear Weapon Free Zone Treaties and the NPT, adopt the IAEA as a compliance verification agency. This provision also makes the IAEA's role perennially relevant. In carrying out its safeguards function, the agency is authorized to examine the design of specialized equipment and facilities of a state, including nuclear reactors, and to approve it from the view-point of assuring that it will not further any military purpose, among other things. The agency is further authorized to inspect the territories of states through its inspectors, but only after consultation with the state concerned. These inspectors shall have access to any person by virtue of whose occupation deals with materials, equipment, or facilities which are

required to be safeguarded by the statute. In the context of ensuring non-proliferation, this is done to ensure that there is compliance with the undertaking against the use of special fissionable materials and fissionable products in furtherance of any military purpose.

Where non-compliance by a state is observed by the agency, the agency has powers only to request within a reasonable time that the state corrects its acts or to suspend or terminate assistance and withdraw any materials and equipment it or a member state made available to the non-complying state. The agency's powers are therefore highly limited to inspections and by that, it is more of a watchdog over the affairs of states pertaining to nuclear technology. In verifying that nuclear energy is used for peaceful purposes and not diverted to military use, it substantially helps in the prevention of nuclear weapons production and proliferation, effectively being part of the framework for eliminating nuclear weapons totally.

The NPT expressly mandates non-nuclear weapon state parties to accept safeguards, as set forth in an agreement to be negotiated and concluded with the IAEA in accordance with the IAEA Statute and the agency's safeguard system. This is part of the verification process poised to prevent diversion of nuclear energy from peaceful to military uses. Hence the NPT permits non-nuclear weapon state parties to individually or collectively with other states conclude such agreements with the IAEA, but however mandates the agreement to be commenced within 180 days from the original entry into force of the NPT; and for those who accede to the treaty after the stipulated timeline, negotiation of the safeguards shall commence immediately after accession. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

As at 2011, 157 NPT non-nuclear weapon states had NPT Safeguards Agreements in force with the IAEA. IAEA safeguards are generally acknowledged as the single credible means by which the

international community can be assured that nuclear material and facilities are being used exclusively for peaceful purposes.

3.6 Bilateral Treaties between Russia and U.S.A

In attempts to achieve cessation of the arms race, the Soviet Union (later Russia) and the U.S.A made several arrangements to reduce the stockpile of their nuclear weapons. This occurred in series of bilateral agreements. The bilateral agreements, unlike the NPT, have stated timelines within which the reduction of specified numbers of nuclear armaments, are expected to be eliminated. The following are agreements between the two countries:

- i. Strategic Arms Limitation Talks I, 1972.
- ii. Strategic Arms Limitation Talks II, 1979.
- iii. Strategic Arms Reduction Treaty (START) I, 1991.
- iv. Strategic Arms Reduction Treaty (START) II, 1993.
- v. Strategic Offensive Reductions Treaty (SORT), 2002.

The latest in the series of nuclear arms reduction treaties between the U.S.A and Russia is the New Strategic Arms Reduction Treaty (New START) of 2010. It is a bilateral agreement between the U.S.A and Russia whereby both countries will be limited to significantly fewer strategic arms within seven years from the date the treaty enters into force. Each party has the flexibility to determine for itself the strategic forces within the aggregate limits of the treaty.

3.7 The Advisory Opinion of the International Court Of Justice (ICJ) on the Legality of Nuclear Weapons.

On 8th July, 1996, the International Court of Justice gave its Advisory Opinion on the question put to it by the General Assembly of the United Nations Organization (UNGASS). The UNGASS had requested

the Advisory Opinion of the ICJ as follows, “Is the threat or use of nuclear weapons permitted in any circumstance under international law?” The ICJ’s Advisory Opinion had since then been regarded as the most authoritative judicial opinion on nuclear weapons.

The court acknowledged foremost, and unanimously, that there is neither in customary nor conventional international law any specific authorization of the threat or use of nuclear weapons. Conversely, by eleven votes to three, it acknowledged that there is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons.

Significantly, the court gauged the legality of the threat or use of nuclear weapons under the requirements of the international law of armed conflict, particularly those of the principles and rules of international humanitarian law (IHL). Notably, the principles and rules of IHL revolve around proportionality and distinction, hence any use or threat of nuclear weapons should meet the threshold of these requirements. Similarly, they must be compatible with specific obligations under treaties and other undertakings which expressly deal with nuclear weapons. In this case, the NPT and the reaffirming undertakings of the state parties in review conferences would be relevant.

Furthermore, the court also agreed unanimously that a threat or use of force by means of nuclear weapons that is contrary to Article 2 (4) of the Charter of the United Nations and that fails to meet all the requirements of Article 51 is unlawful. The UN Charter provides that “All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state or in any other manner inconsistent with the purposes of the United Nations.”

It was based upon the consideration of the foregoing requirements that the court opined 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.

The contribution of the ICJ's opinion to the framework for nuclear weapons elimination is that it creates a platform and guidance to decision and policy-makers for future legislation outlawing nuclear weapons. This is because the court identified many aspects of the illegality and dangers of nuclear weapons. Although the court came short of making an absolute condemnation of nuclear weapons by identifying a possible exception to its use, it went quite a distance in laying a foundation for elimination of nuclear weapons in accordance with the NPT. Having successfully negated the use and threat to use nuclear weapons, the setback to an absolute condemnation and outlawing of nuclear weapons, just like other weapons of mass destruction, occurred when the court stated that:

However, in view of the current state of international law, and of the elements of fact at its disposal, the court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of the world would be at stake.

It is important to observe that the unanimous language of the court in finding that the threat or use of nuclear weapons would generally be contrary to the principles of IHL is definite and without ambiguity. However, in expressing its hesitation in giving an absolute negation to the use of nuclear weapons, the court did not give a definite opinion. It stated rather, that "*the court cannot conclude*" on the question in the circumstance of extreme self-defence in which the very survival of a state would be at stake. In essence, while it appears to have created an exception, what it actually did was decline to conclude on whether or not to create an exception to the use or threat of nuclear weapons under international law. In other words, the court did give an opinion as to the unlawfulness of the use and threat of nuclear weapons, acknowledged that there could be an exception to the use in a specific circumstance, but failed short of concluding on whether or not that exception would be acceptable under international law.

What is even more significant is that the court concluded its opinion by unanimously acknowledging that there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all aspects and under strict and effective international control. In effect, the court has given judicial backing to the disarmament clause of Article VI of the NPT.

In the case of Article VI, the court relied on a distinction drawn in international law between two kinds of obligations. There is an obligation of conduct, which refers to performing or refraining from a specific action. The second kind of obligation is an obligation of result: a state by some means of its choice is required to bring about a certain outcome. The ICJ said Article VI involves both kinds of obligations.

The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result, nuclear disarmament in all its aspects, by adopting a particular course of conduct, namely the pursuit of negotiations on the matter in good faith.

3.8 Soft Laws on the Elimination of Nuclear Weapons

Soft laws on the elimination of nuclear weapons pertain to those aspects of the legal framework of nuclear weapons elimination which though not legally binding, act in diverse ways to supplement the framework. These include commitments made by state parties to the NPT at review conferences, to pursue the goal of disarmament and elimination. Others include United Nations General Assembly Resolutions as well as other guidelines and action-plans on achieving the goal of elimination.

3.8.1 Commitment of NPT State Parties to Nuclear Weapons Elimination

To further strengthen their resolve to fulfill their obligations of disarmament under the NPT, state parties have in review conferences of the NPT expressed their commitments through action plans, guidelines and standards. These commitments are second only to their legally binding obligation under the treaty and reinforcement of their state responsibility under international law, to fulfill the terms of treaties they have willingly ratified.

At the 2000 Review Conference of the NPT, state parties agreed on thirteen practical steps for the systematic and progressive efforts to implement Article VI of the NPT. In the earlier conference in 1995, they adopted Principles and Objectives for Nuclear Non-Proliferation and Disarmament. Hence the thirteen practical steps adopted in 2000 are also designed to achieve the 1995 objectives.

(a) Principles and Objectives for Nuclear Non-Proliferation and Disarmament:

- i. The need for the universal adherence to the NPT, whereby non-state parties to the NPT are called upon to accede to the treaty.
- ii. The need to seriously prevent the proliferation of nuclear weapons, as well as for NWS to fulfill their disarmament obligation.
- iii. The entry into force of the Comprehensive Test Ban Treaty, and negotiations on banning the production of fissile materials for producing nuclear weapons.
- iv. The encouragement of the development of nuclear-weapon-free zones especially in regions of tension such as the Middle-East.
- v. The need to give more security assurances by the NWS especially to NNWS parties, against the use or threat to use nuclear weapons.
- vi. The need to cooperate with the safeguards role of the IAEA and all other requirements of safeguards agreements.

(b) Thirteen Practical steps adopted at the 2000 NPT Review Conference

- i. The importance and urgency of signatures and ratifications, without delay and without conditions, and in accordance with constitutional processes, to achieve the early entry-into-force of the Comprehensive Test Ban Treaty.
- ii. A moratorium on nuclear-weapon-test explosions or any other nuclear explosions pending the entry-into-force of the treaty.
- iii. The necessity of negotiations in the Conference of Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices.
- iv. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament.
- v. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
- vi. An unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all state parties are committed under Article VI.
- vii. The early entry-into-force and full implementation of START II as soon as possible while preserving and strengthening the Treaty on the Limitation of Anti-Ballistic Missile Systems as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.
- viii. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.

ix. Steps by all the nuclear-weapon states leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all. These steps would entail further efforts by the NWS to unilaterally reduce their nuclear arsenals, increased transparency with regard to their nuclear weapons capabilities, reduction of non-strategic nuclear weapons, concrete measures to reduce the operational status of nuclear weapons systems, a diminishing role for nuclear weapons in security policies, arrangements by all nuclear-weapon states to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, reaffirmation that the ultimate objective of the efforts of states in the disarmament process is general and complete disarmament under effective international control, regular reports by all states parties on the implementation of Article VI of the NPT and paragraph 4(c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament and further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament and maintenance of a nuclear-weapon-free-world.

3.8.2 United Nations General Assembly Resolutions

The General Assembly of the United Nations Organization has adopted important resolutions that not only communicate the dangers of nuclear weapons on humanity but also on measures to be taken to achieve the goal of elimination. It is noteworthy that the General Assembly has been consistent in its expression of the need to eliminate nuclear weapons in the world. The significance of UN General Assembly Resolutions is that a widespread, universal adoption of a resolution by the world body confers on that resolution the status of a norm of customary international law. Some significant UNGASS resolutions on nuclear weapons are:

- i. **“Towards a Nuclear-Weapon-Free World: The Need for a New Agenda,”** - This resolution was adopted in 2000. It affirms the Practical Steps for Non-Proliferation and Disarmament adopted at the 2000 NPT review conference and additionally affirms “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.”
- ii. **“Follow-up to the Advisory Opinion of the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons”** - This resolution was adopted in 2005, being one of a series going back to 1996. The resolution sought to give boost to the opinion of the ICJ that “there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all aspects under strict and effective international control.” The resolution calls once again on all states to immediately fulfill that obligation by commencing negotiations leading to an early conclusion of a nuclear weapons convention prohibiting the development, production, testing, deployment, stockpiling, transfer, threat or use of nuclear weapons, and providing for their elimination.
- iii. **“The Renewed Determination” Resolution.** - This resolution was adopted in 2005. It is a guide to the elements of the practical steps that are essential to moving forward in implementation of Disarmament Article VI of the NPT. These steps were enunciated in the commitments made at the 2000 NPT review conference. The resolution further upheld from the general commitments made at the conference “the necessity of a diminishing role for nuclear weapons in security policies” and “the reduction of the operational status of nuclear weapons systems.”

This resolution was adopted by almost all the governments in the world, including close allies of the nuclear-weapon states. They are now on record as favoring principles of

transparency, irreversibility and verification “in the process of working towards the elimination of nuclear weapons.”

3.8.3 The Report of the Canberra Commission on the Elimination of Nuclear Weapons

The Canberra Commission was established as an independent commission by the Australian Government in November, 1995 to propose practical steps towards a nuclear weapon free world, including the related problem of maintaining stability and security during the transitional period and after this goal is achieved. It is one of the unique efforts undertaken by a sovereign state towards the elimination of nuclear weapons. The commission presented its report in 1996 and the report provides significant suggestions for successfully achieving the elimination goal of Article VI of the NPT.

The importance of the Canberra report to the legal framework of nuclear weapons elimination is foremost, that it provides significant guidelines on how to achieve the most challenging core objective of the NPT, ‘disarmament.’ If the report is adopted universally by the World Assembly, it will provide an additional aid to the implementation of the NPT. Secondly, it may serve as a significant guide to a substantive nuclear weapons convention.

Very importantly the report identified the argument of nuclear deterrence used by nuclear weapon states to sustain the possession of their weapons as an obstacle to the attainment of the disarmament objective, and accordingly provided a rational counter-argument to deal with that issue. It then proceeded to map the successive steps that should be taken to achieve elimination. It considered the intense reliability of nuclear states on their weapons for security, hence adopting an approach that would ensure that elimination is undertaken piecemeal. It recognized as the first important step, “an unambiguous commitment by the nuclear weapon states to achieving the elimination of nuclear weapons within a reasonable time”

The report considered that at an early stage in the implementation of the elimination agenda, such commitment by the nuclear weapons state would be beneficial to the process. What this entails is not a treaty commitment since a treaty already exists for that purpose but a political commitment or compact, entered into by the recognized five nuclear weapon states and supported by the non-nuclear weapon states. Although such a political commitment is not legally binding, if it is a well-publicized declaration, the report considered that a state would think twice before reneging on it.

Though laudable, this rationalization is arguable because drawing from the United States reneging the CTBT, a treaty that was primarily promoted by it and used by it as a pawn for extending the NPT, it is apparent that the U.S.A will not easily be obliged to uphold its publicly known commitments because of the fear of negative public opinion against it. This is more so because the decisions taken by the executive arm of government have to be approved by an independent parliamentary body which may gauge the weight of disincentives to its domestic security against the weight of fulfilling international obligations. . In most legal systems in the world, treaties cannot operate of themselves within the state but require the passing of an enabling statute. This is true for the United States legal system as it is for the United Kingdom and Nigeria.

The report, however, provides that the commitment of the nuclear weapon states to a nuclear free world must be accompanied by a series of practical, realistic and mutually reinforcing steps. Hence it recognizes as the second phase of action the following steps to be taken:

- i. Take nuclear forces off alert and remove warheads from delivery vehicles.
- ii. End deployment of non-strategic weapons.
- iii. Commit to no-first use.
- iv. Initiate negotiations to further reduce U.S and Russian nuclear arsenals.

The wisdom in taking nuclear forces off alert status lies in the elimination of the possibilities of nuclear accidents or unauthorized launching of the weapons by people who ordinarily have access to them. Similarly, by separating warheads from delivery vehicles, the readiness-for-war posture is thereby greatly reduced. Furthermore, removing non-strategic weapons from deployed sites, along with the other measures are all preparatory steps to more proactive actions towards disarmament. The United States of America and Russia are the world's biggest nuclear powers and the sustenance of nuclear weapons throughout the Cold War is attributed primarily to them. Further steps taken to reduce their nuclear arsenals would largely demonstrate to the whole world their commitment to disarmament and also encourage the other nuclear weapon states to reduce theirs and achieve eventual total disarmament.

The role of negative security assurances is also recognized as playing an important role in building confidence between states. Hence the nuclear weapon states should make an agreement not to be the first to use or threaten to use nuclear weapons against each other and also to give the assurance to non-nuclear weapon states that they would not use or threaten to use nuclear weapons in any conflict with them.

The third phase of elimination as presented in the report is reinforcing phase whereby the state parties will be required to take the following steps:

- i. End nuclear testing permanently.
- ii. Act to prevent further horizontal proliferation.
- iii. Cease production of fissile material.
- iv. Develop verification arrangements.

To further strengthen disarmament efforts in the third phase, actions are meant to be taken to strengthen efforts towards preventing non-nuclear weapon states from launching their own nuclear weapons. If more countries acquired nuclear weapons, it would reverse any progress made by the

nuclear weapon states towards disarmament. To further strengthen their resolve, adequate verification arrangements are required to be put in place to ensure that nuclear technology is being used for peaceful purposes only and not diverted towards military objectives. This verification system will also ensure that when the states dismantle their warheads, it is permanent and the materials thereof cannot be reused for military purposes. The final steps proposed by the report are:-

- i. Drawing nuclear weapon states other than U.S.A and Russia into the process.
- ii. Come up with new nuclear weapons convention which consolidates all the elements involved in the disarmament process proposed by the report.

3.8.4 Resolutions of the International Red Cross and Red Crescent Movement

The International Red Cross and Red Crescent Movement have since the 1945 bombing of Hiroshima and Nagasaki expressed their concern about the destructive effects of nuclear weapons and the need for their elimination, through resolutions. In 1948, with Resolution XXIV of the 17th International Conference of the Movement, it called on states to undertake to prohibit absolutely all recourse to so called “non-directed weapons” (i.e. atomic weapons) and to the use of atomic energy or any similar force for purposes of warfare. The 1948 Resolution was reiterated in international conferences of the movement in 1952, 1957, 1969, 1977, and 1981.

More recently the Movement in 2009 passed Resolution 7, which called upon states to continue their efforts towards the elimination of nuclear weapons with determination and urgency. Most recently the Council of Delegates of the Movement prepared a Draft Resolution in 2011, “Working towards the Elimination of Nuclear Weapons,” which is intended to:

- i. Ensure that states, parliamentarians, organizations, civil societies and other entities correctly understand the Movement’s position and concerns regarding nuclear weapons.

- ii. Help further re-frame the international debate on these weapons in terms of their human costs and international humanitarian law implications and,
- iii. Support the efforts made on nuclear weapons by National Societies that are willing to work on this issue on a national basis.

The crux of the resolution is to urge states to never again use nuclear weapons for any reasons whatsoever regardless of the states' views on the legality of such weapons. This appeal clearly goes to the nuclear policies of the nuclear powers who have their nuclear weapons poised in readiness to defend an attack from adversaries. The resolution also called for the conclusion of negotiations to prohibit the use and completely prohibit nuclear weapons through a legally binding international agreement. Being the custodians of international humanitarian law, which regulates weapon usage in war, the movement has made its contributions to the growing legal framework for nuclear weapons elimination.

3.9 The Proposed Model Nuclear Weapons Convention (MNWC) : Emerging Field in the Framework for Nuclear Weapons Elimination.

In the quest for a permanent solution to the nuclear weapons disarmament and elimination problem, a member of the General Assembly of the United Nations Organization, Costa Rica, in 1997 submitted what it considered a model of a nuclear weapons convention to the Secretary General of the UN who subsequently circulated it to the other members of the UN for their consideration. Subsequent to that, an international consortium of lawyers, scientists and disarmament experts drafted and updated the model convention, taking into account relevant technical, legal and political events between 1997 and 2007. The updated convention is still a work in progress and it was re-circulated to the members of the UN again prior to the 2010 review conference of the NPT by the UN Secretary General. If eventually

adopted as the substantial nuclear weapons convention, it will be the first comprehensive work done on the total elimination of nuclear weapons.

The model convention has eighty paragraphs of definitions of terms used in the treaty for the avoidance of doubt. Some of the significant definitions include nuclear weapons, nuclear-capable state, nuclear weapons state, nuclear material, nuclear facilities and nuclear activities.

3.9.1 Objective of the Convention

The pivotal goal of the convention is the elimination of nuclear weapons. Hence it prohibits the development, testing, production, stockpiling, transfer, the use and threat to use nuclear weapons. The convention requires states with nuclear weapons to destroy their arsenals according to a series of phases. It also prohibits the production of weapons usable fissile material and requires delivery vehicles to be destroyed or converted to make them non-nuclear capable.

3.9.2 Elimination of Nuclear Weapons in the Convention

The provisions of the MNWC make clear the fact that its core objective is the total elimination of nuclear weapons. It accordingly provides elaborately and comprehensively, obligations, measures, as well as techniques towards total elimination. Foremost, it provides obligations on both states and individuals. For state parties, it places obligations in the form of restrictive stipulations, which prohibit them from performing certain acts, as well as mandatory injunctions, which require them to perform certain obligations.

(a) Restrictive Obligations on State Parties

The restrictive obligations of states pertain to the convention's prohibitions whereby it binds state parties by an undertaking never under any circumstances to use or threaten to use nuclear weapons or to engage in any military or other preparations to use nuclear weapons. It binds them in the same manner never to develop, test, produce, otherwise acquire, deploy, stockpile, maintain, retain, use nuclear weapons, nuclear material, nuclear weapons delivery vehicles, and nuclear weapon components. The state parties are further bound never to fund nuclear weapons research, with the exception of nuclear disarmament research, and never to assist, encourage, induce, or permit in any way, directly or indirectly, anyone to engage in any activity prohibited by the convention.

(b) Mandatory Obligations on State parties

While the restrictive obligations are passive in character and have restraining effect, the mandatory obligations require state parties, particularly those possessing nuclear weapons or plants, or related facilities, to take certain proactive actions. Under this heading, each state party is bound by an undertaking to destroy all nuclear weapons and nuclear weapon facilities it owns or possesses, or are located in any place under its jurisdiction or control, or which it abandoned on the territory of another state. For nuclear facilities, a state has the option to convert such facilities to weapons destruction facilities. Furthermore, every state is bound to destroy or convert for permissible uses all nuclear delivery vehicles and nuclear weapon components as well as all facilities, systems or sub-systems designed or used in the command or control of nuclear weapons. It is also bound to place all special nuclear material under preventive controls

The obligations of state parties go beyond the disabling and destruction of their nuclear weapons and facilities to participating in activities aimed at promoting transparency with respect to nuclear

weapons and related technologies and in education for purposes of detecting and preventing prohibited activities. State parties are also bound to report violations of the convention to the agency created by the convention for the purpose of executing its mandate. State parties are further obliged to enact all domestic legislation necessary to implement the convention.

3.9.3 Declarations

One of the measures to be adopted to achieve the objectives of the convention is by making certain declarations. The model convention requires all state parties to declare:

- i. All nuclear weapons they own or possess, owned or possessed and the precise location of the weapons possessed/owned, their quantity and detailed inventory to the registry which shall be established for the purpose of achieving the objects of the treaty.
- ii. All nuclear materials which could be used in making nuclear weapons are required to be made to the registry.
- iii. Facilities for the production of nuclear weapons or their continued sustenance are also required to be declared in the registry within a specific timeline.
- iv. The number and location of the nuclear weapons delivery vehicles of a state party. These delivery vehicles include nuclear-capable ballistic and cruise missiles, nuclear-capable submarines, naval crafts and aircrafts, including all those in production, storage and under repair.

3.9.4 Implementation of the Provisions of the MNWC

The MNWC adopts a very practical approach to the implementation of its provisions by apportioning phases for the implementation hinging on the graduality of performance. It therefore, divides the phases

into five; the general guideline being that each phase indicates the deadline for completion of specific implementation activity. Hence in the first phase of implementation, within and not later than one year after the convention comes into force, all states are expected to have complied with the requirement for making the various declarations. Other activities within this phase include:

- i. Disabling and removing off alert status all nuclear weapons and nuclear weapons delivery vehicles.
- ii. Designing for decommissioning and closure for conversion, of all nuclear weapons testing, research and production facilities.
- iii. Ceasing of production of proscribed nuclear material.
- iv. Ceasing of funding for nuclear weapons research for purposes inconsistent with the convention.
- v. Ceasing of production of specified nuclear weapon components.
- vi. Submitting of plans for the implementation of the obligations under the convention, to the Agency established by the convention.

It can be observed that the practical steps stipulated for the first phase of implementation are all preparatory towards the eventual elimination of nuclear weapons. Accordingly the first phase of implementation is characterized by the stoppage of efforts towards promoting the production of nuclear weapons.

(a) The Second Phase of Implementation

This is within and not later than two years after the convention comes into force. In this phase, it is required that the actual removal of all nuclear weapons and their delivery vehicles from their deployment sites, be done. Secondly, all warheads are expected to be removed from their delivery vehicles and either placed into nuclear weapons storage facilities or dismantled. Lastly, agreements shall

be negotiated to subject all nuclear weapons, material and facilities to preventive controls. The second phase may be described as an advanced preliminary phase to the destruction of the weapons, which will be done in the third phase.

(b) The Third Phase of Implementation

This phase, which is within and not later than five years after the convention comes into force, is the phase when all nuclear weapons are required to be dismantled and destroyed. It appears that the drafters of the convention had taken into consideration the need for adjustment and stability in the process of destroying the existing nuclear weapons of states, so that a one-time procedure does not yield a chaotic situation heralded by a drastic change of status for the nuclear “haves.” Accordingly, the convention while providing for the destruction of all nuclear weapons, still gives a caveat excepting not more than 1000 warheads in each of the stockpiles of Russia and the United States of America, the two biggest nuclear powers, and not more than 100 warheads in each of the stockpiles of China, France and the United Kingdom.

In other words, even after the phase three implementation, which involves the actual destruction of the weapons, U.S.A and Russia would still be entitled to retain 1000 warheads each, while the other original members of the nuclear club would be entitled to retain 100. Further to that, all nuclear weapons delivery vehicles shall be destroyed or converted for purposes which do not contravene the convention and all nuclear weapons facilities shall be designated for decommissioning and closure for conversion.

(c) Fourth Phase of Implementation

In this phase, which is within and not later than ten years after the convention comes into force, the destruction of nuclear weapons continues. However, by the end of this phase, the biggest nuclear

powers, U.S.A and Russia shall be entitled to keep only 50 warheads each in their stockpiles and the other original members of the nuclear club, only 10 each. In this critical phase, all reactors using highly enriched uranium shall be closed or converted to low enriched uranium use. Also, all reactors using plutonium as fuel shall be closed or converted to reactors that do not use any special nuclear material. All special nuclear material in any form shall be under strict, effective and exclusive preventive controls.

(d) Fifth Phase of Implementation.

Not later than 15 years after the convention comes into force, the fifth and final phase of implementation would have concluded. In this phase all nuclear weapons shall be destroyed. The convention has established the Agency for the Prohibition of Nuclear Weapons (APNW) as the principal body for the implementation of its provisions. This Agency shall continue to exist thereafter but its powers and functions would be reviewed and adjusted to preserve its role in carrying out the objectives of the convention.

It can, therefore, be concluded that the MNWC has provided a definite timeline, which is exactly fifteen years from the time that it comes into force, for the complete elimination of nuclear weapons. The convention is expected to come into force when all states sign and ratify it. The stumbling block to this endeavor, however, is that not all states may sign and ratify the treaty especially as it appears to have the most stringent and comprehensive regulations ever encapsulated in nuclear weapons law. This is because even though in its preamble the convention states clearly that it is complementary to all pre-existing nuclear weapons treaties, it actually comprehensively embodies the purposes and functions of all pre-existing nuclear weapons treaties viz., hindering the testing and proliferation of nuclear weapons, the purposes for which nuclear free zones exist, the strategic reduction of weapons; have all been united in the comprehensive provisions of the model convention. This draft convention also goes a big step

further than all pre-existing treaties to proffer practical steps for achieving the objectives of eventual elimination of nuclear weapons. The model convention has also apparently adhered to the salient suggestions of the Canberra Commission Report.

3.9.5 Verification

The MNWC establishes a very comprehensive verification regime, which is designed to ensure that there has been compliance by state parties, with its provisions. The verification system does not abolish but incorporates the roles of pre-existing verification bodies like the IAEA and the UN, and preserves pre-existing data-sharing and verification activities among states. It includes a registry and an international monitoring system, among other safeguards.

Interestingly, the verification system is participatory in that it includes citizen and non-governmental reportage of activities that contravene or are suspected of potentially contravening the convention and the convention provides adequate measures for protecting them. All obligations, declarations and phases of implementation shall be subject to verification.

3.9.6 National Implementation Measures

The convention requires state parties to take further steps in ensuring that when the provisions of the convention are contravened by anyone, they would be punished by domestic law. Hence state parties are required to adopt the necessary measures in accordance with their constitutional processes, to implement their obligations under the convention. They are particularly required to extend their penal legislation to provide for the trial, extradition and punishment of persons who commit crimes as defined by the convention. A crime under the convention is any activity prohibited under Article 1 and any activity

which poses a grave risk to the object and purpose of the convention by virtue of its high potential for aiding and assisting activities specifically prohibited by the convention.

In addition to extending their penal legislation for punishing violations of the convention, state parties are further required to extend their legislation to provide necessary protection for people who report violations of the convention. The protection includes protection from arrest and prosecution and the right of asylum where necessary. Procedures for this are elaborately provided for by the convention.

Persons accused of committing a crime under the convention shall be tried according to the legal process of the state that has jurisdiction or the ICC where appropriate.

3.9.7 Analysis

The draft model nuclear weapons convention is a very comprehensive document which appears to have supplemented loopholes extant in existing nuclear weapons treaties. Indeed, the provisions pertaining to the restrictive obligations have exhaustively dealt with every conceivable nuclear weapons issue under the legitimate control of a state in the context of restraint. It is noteworthy that the model convention does not make a distinction, unlike the NPT, between nuclear weapon states and non-nuclear weapon states, in allotting its restrictive obligations. This is apparently because of the comprehensive character of the obligations. While states possessing nuclear weapons will neatly fall under the prohibition against use or threat to use the weapons, states not possessing are adequately affected by the provision against testing or developing nuclear weapons.

Interestingly, if the model convention as it is regarding these obligations eventually becomes the substantive nuclear weapons convention, the stipulation that parties should not *under any circumstances* use nuclear weapons will effectively douse the ambiguity regarding use of nuclear weapons which resulted from the Advisory Opinion of the International Court of Justice in 1996. The provision of the

MNWC that states should not under any circumstances use nuclear weapons would make the position on the unlawfulness of the use of nuclear weapons very clear and unambiguous.

In another significant observation, the prohibition against the threat to use nuclear weapons would effectively lay to rest the controversial issue of nuclear deterrence, by which nuclear weapon states have legitimized the continued possession of their nuclear weapons. This is so because the nuclear deterrence theory assumes a threat to use nuclear weapons in the face of intense provocation, hence the deterrent effect against the provocator, who should reasonably fear the effect of destruction. However, if even the threat to use nuclear weapons is outlawed, as has been done in the draft model convention, then the issue of nuclear deterrence would have been effectively put to rest.

The problem envisaged with this convention, however, is that even if it successfully emerged as the substantive nuclear weapons' convention, there is absolutely no guarantee that the nuclear superpowers would be a party to, or ratify it. The draft convention contains no incentives to its ratification nor does it contain disincentives to its non-ratification. As a matter of fact, its comprehensiveness, embodying aspects of significant treaties may very well be a major disincentive to nuclear weapon states if they are not willing to give up their nuclear weapons. In the absence of any institutional mechanism and laid-out strategies to aid the treaty in achieving its primary objectives, it may just end up being another lame statement by the international community of states, towards the abolition of nuclear weapons.

CHAPTER FOUR

AN EXAMINATION OF NUCLEAR WEAPONS' ELIMINATION UNDER THE FRAMEWORK OF INTERNATIONAL HUMANITARIAN LAW (IHL)

4.1 Overview of International Humanitarian Law

International humanitarian law is a special branch of law governing situations of armed conflict – in a word, war. It seeks to mitigate the effects of war, first in that it limits the choice of means and methods of conducting military operations. Secondly, it obliges the belligerents to spare persons who do not or no longer participate in hostile actions. In other words, IHL consists of rules which regulate what kinds of weapons are permitted in warfare and those which are outlawed. Secondly, it consists of rules which protect civilians during warfare as well as combatants who have laid down their arms either voluntarily, because of injury or because they have fallen into the hands of their adversaries.

The sources of IHL comprise of statutory law, specifically the Four Geneva Conventions of 1949 and their two Additional Protocols. The rules of International Customary Law constitute another source of IHL. Some of them set forth absolute obligations which are binding on all states (*jus cogens*).

4.2 Relationship between IHL and Nuclear Weapons

International Humanitarian Law is applicable only in situations of armed conflict. Accordingly, any relationship between IHL and nuclear weapons will have to relate to armed conflict situations. The calculated magnitude of the potential effects of nuclear weapons suggests that the use of nuclear weapons by state actors would have to be in extreme situations of desperation, namely, in times of

armed conflict. As a matter of fact, the only use of nuclear weapons ever was during World War 2, by the United States of America against the empire of Japan.

The International Court of Justice in its 1996 Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons identified two yardsticks for determining the question. The first is the use of force under the yardstick of the United Nations Charter. The second is the use of force under the yardstick of the rules applicable in armed conflict. In this respect the court stated that “a threat or use of nuclear weapons is governed by the international law applicable in armed conflict, particularly those of the principles and rules of international humanitarian law, as well as specific obligations arising from treaties and other undertakings that expressly deal with nuclear weapons.” The declaration of the ICJ thereby placed the determination of the nuclear weapons issue substantially within the ambit of IHL. Accordingly, the court extensively deliberated and determined the question of both the threat and use of nuclear weapons under the framework of IHL.

4.2.1 Scope of IHL on Nuclear Weapons

The core principles regulating the use of weapons in warfare are the principles of distinction and proportionality. The principle of distinction prohibits the use of weapons which have indiscriminate effects; that is, their destructive effects do not distinguish between civilians/civilian objects and military objectives. The principle of proportionality prohibits the use of weapons which cause superfluous injury and unnecessary suffering. These principles were first encapsulated in St Petersburg Declaration of 1868. The Declaration of St Petersburg is the first formal agreement prohibiting the use of certain weapons in war. The declaration obliged contracting parties to ‘renounce in case of war among themselves, the employment by their military or naval troops of any projectile of a weight below 400 grammes, which is either explosive or charged with fulminating or inflammable substances.’

The type of weapon described in the declaration is such that has the potential effect of not only targeting military objects, but affecting the civilian population thereby not discriminating between specific targets and untargeted objects, and invariably causing unnecessary injuries on non-combatants.

(a) Principle of Proportionality

The rule of proportionality prohibits the use of a weapon whose potential collateral effects upon non-combatant persons or objects would likely be disproportionate to the value of the military advantage anticipated by the attack. The underlying notion behind the proportionality rule is balancing military necessity with humanity. Accordingly, disproportionate attacks which would injure civilians would reasonably be unnecessary and devoid of military value. Furthermore, weapons whose effects cannot be controlled do not meet the threshold of proportionality.

The proportionality requirement for acceptability of a weapon in warfare was codified in the annex to the Hague Conventions of 1899 and 1907, relating to the Laws and Customs of War on Land. The conventions state explicitly that the right of belligerents to adopt means of injuring the enemy is not unlimited. Accordingly, the conventions forbid belligerents to employ arms, projectiles or material calculated to cause unnecessary suffering. This prohibition is also reflected in the Additional Protocol 1 to the Geneva Conventions of August, 1949.

In determining the applicability of the general prohibition of weapons that cause disproportionate effects to nuclear weapons, it is instructive to profile the observations of the ICJ on the effects of nuclear weapons. The court in its 1996 opinion observed that the damage caused by nuclear weapons are vastly more powerful than the damage caused by other weapons and their unique characteristics render the nuclear weapon potentially catastrophic. It stated that, “the destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire

ecosystem of the planet.” For this reason alone, it could be asserted that the use of nuclear weapons ought to be outlawed absolutely.

To emphasize further on the unnecessary or superfluous injuries potentially caused by nuclear weapons, one of the judges of the ICJ, Judge Shahabuddeen stated that the effects “cause unspeakable sickness followed by painful death, affect the genetic code, damage the unborn, and can render the earth inhabitable. These extended effects may not have military value for the user, but this does not lessen their gravity or the fact that they result from the use of nuclear weapons.”

The disproportionate effects of the use of nuclear weapons in an attack can be best appreciated in the true life bombings of the Japanese cities of Hiroshima and Nagasaki in 1945. The bombings were preceded by six months of fire bombings of 67 Japanese cities. By the executive order of President Harry Truman, U.S.A dropped the nuclear weapon ‘Little Boy’ on the city of Hiroshima on Monday August 6, 1945 followed by the detonation of ‘Fat Man’ over Nagasaki on August 9. These are the only attacks with nuclear weapons in the history of warfare. Within the first to four months of the bombings, the acute effects killed 90,000 – 166,000 people in Hiroshima and 60 – 80, 000 people in Nagasaki, with roughly half of the deaths in each city occurring on the first day.

The Hiroshima Prefectural Health Department estimates that of the people who died on the day of the explosion, 60% died from flash or flame burns, radiation sickness and other injuries, compounded by illness. A plausible estimate of the total immediate and short-term cause of death, 15 - 20% died from radiation sickness, 20 – 30% from flash burns and 50 – 60% from other injuries, compounded by illness. Since then more have died from leukemia and solid cancers attributed to exposure to radiation released by the bombs. In both cities, most of the dead were civilians.

In Nagasaki damage extended 4.7 km from the epicenter and those who died when the bomb exploded were mainly within a radius of 4 km. At the epicenter, heat rays caused water to evaporate

from human organs, the bones of a human hand to stick to a clump of glass and a victim's skull to remain on the inner surface of a steel helmet. A sixteen year-old boy who was 1 km from the epicenter and a twenty-four year-old woman who was 1.5 km away described the instantaneous destruction as follows:

A light that was orange and like a camera's flash streaked over my head (I was standing in the shadow of a brick warehouse wall 4 metres high). Then a mother and her children were about 10 metres away from me, together with other children running away from where I was and passing, the mother with her children instantaneously disappeared.

In just an instant, things on the ground blew away and were destroyed. It was a scene where everything was completely in disarray. I thought it was probably the end of the world.

Yet another horrid account of the effects of the bombing at Nagasaki was given by two other survivors of the event; a thirty year-old man who was 1.5 km from the epicenter and a nine year-old girl who was 3 km from the epicenter in these words:

After that flash of light, there was one person after another trying to escape in my direction and they were all turned pitch-black. Everything was burned black; bright red blood was coming out of black charred skin. There was not a single person with a complete body. One could scarcely tell the difference between men and women.

People without arms or legs rolled about on the ground, crying for help. Some people jumped about like rabbits, some of them even tried to depend on a child like me, begging for water. In this wave of people you couldn't tell whether they were men or women, and which were their eyes, their noses, or their faces.

Another account of the grievous events in the two Japanese cities was given by a double survivor of the events, Tsutomu Yamaguchi. Yamaguchi described injured survivors of the bombings in the aftermath as:

Ant-walking alligators who were now eyeless and faceless with their heads transformed into blackened alligator hides, displaying red holes (indicating mouths). The alligator people did not scream. Their mouths could not form the sounds. The noise they made was worse than screaming. They uttered a continuous murmur like locusts on a midsummer night. One man, staggering on charred stumps of legs, was carrying a dead baby upside down.’

Tsutomu Yamaguchi was in 1945 three kilometers from Hiroshima on a business trip when the bomb was detonated. He was seriously burnt on his left side and spent the night in Hiroshima. He got back to his home city of Nagasaki on August 8, a day before the bomb in Nagasaki was dropped and he was exposed to residual radiation while searching for his relatives. He died Monday, January 4, 2010 after a battle with stomach cancer. He was 93.

(b) Principle of Distinction

The rule of distinction evolved to protect the civilian population, civilian objects and the natural environment from the effects of war. These are not military objectives and do not add any value to warfare. Article 48 of Additional Protocol 1 provides that “in order to ensure respect for and protection of the civilian population and civilian objects, the parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.”

It follows, therefore, that any weapon which if used, would not only affect military objectives but would include the civilian population and civilian objects, lacks distinction quality. The rule of distinction is also reflected in the provisions annexed to the two Hague Conventions. Article 27 common to the conventions provides that “in sieges and bombardments, all necessary steps must be taken to spare, as far as possible, buildings dedicated to religion, art, science or charitable purposes, historic

monuments, hospitals and places where the sick and wounded are collected, provided they are not being used at the time for military purposes.”

In applying the rule of distinction to nuclear weapons, it can be seen that when detonated, nuclear weapons have far and wide-ranging effects and have the capacity to destroy all of the protected places mentioned in Article 27; hence the use of nuclear weapons qualifying as a contravention of the distinction rule. To protect the natural environment from the effects of warfare, the law also provides in Article 35 of Additional Protocol 1 that “It is prohibited to employ methods or means of warfare which are intended, or may be expected to cause widespread, long-term and severe damage to the natural environment.” Relating this to nuclear weapons, ionizing radiation has the potential to damage the future environment, food and marine ecosystem.

The ancillary principles to the core principles of proportionality and distinction are the principles of necessity and controllability. The principle of necessity provides that a state may only use such a level of force as is “necessary” or “imperatively necessary” to achieve the military objective of the particular strike. Any additional level of force is unlawful. In any conflict, therefore, where less destructive weapons can be used to achieve the objective of conquering the enemy combatants, it would go against the principle of necessity to employ the use of more destructive weapons, even if they are not prohibited by law. In applying this principle to the use of nuclear weapons, it should be observed, foremost, that there is no weapon on earth that is less destructive than a nuclear weapon and the large array of conventional weapons extant are sufficient to engage in conflicts between states except conflicts in which nuclear weapons are the attacking weapons. In such a situation, the rules of proportionality and distinction prohibit such use. Another aspect of the principle of necessity is whether the potential injury anticipated in an attack is worth the achievement of the military objective.

The principle of controllability simply states that it is unlawful for a state to use weapons whose effects it cannot control. Hence, weapons that potentially cause disproportionate effects do not have the ability to distinguish between civilians and combatants and the use of which would obviously not be necessary to achieve the desired objective are invariably out of the control of the state using them. Nuclear weapons from foregoing analyses possess these characteristics.

(c) The Principles of Distinction and Proportionality under International Customary Law

The twin principles of distinction and proportionality as encapsulated in the treaties constituting IHL also form a substantial part of the body of international customary law. In other words, even if they had not been made operational by the act of treaty-making, they could have otherwise been found in prevalent and consistent state practice. This is reflected in the result of the ICRC's study of Customary International Humanitarian Law. It was discovered in the study that the rules of distinction and proportionality feature prominently as rules of IHL in both international and non-international armed conflicts. Rule 1 of the study states explicitly that:

The parties to the conflict must at all times distinguish between civilians and combatants. Attacks may only be directed against combatants. Attacks must not be directed against civilians. It reflects also that in so far as objects are concerned, military objectives are limited to those objects, which by their nature, location, purpose or use make an effective contribution to military action and whose partial or total destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.

These rules prove that by international custom, it is required that parties to a conflict should adhere to the principle of distinction. Rule 3 of the study explicitly places a prohibition on indiscriminate attacks thus: "indiscriminate attacks are prohibited." Indiscriminate attacks are those which are not

directed at a specific military objective, which employ a method or means of combat which cannot be directed at a specific military objective; or which employ a method or means of combat the effects of which cannot be limited as required by international humanitarian law.

Regarding the rule of proportionality, the study reflects that launching an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated, is prohibited in both international and non-international armed conflicts.

International customary law also reflects the ancillary precautionary rule that stipulates that in the conduct of military operations, constant care is required to spare the civilian population and civilian objects. Accordingly, all feasible precautions must be taken to avoid, and in any event to minimize incidental loss of civilian life, injury to civilians and damage to civilian objects. Such precautions must be extended also in choosing means and methods of warfare with a view to avoiding, and in any event to minimizing incidental loss of civilian life, injury to civilians and damage to civilian objects.

4.2.2 Analysis

It is clear from the evidence in statutory law and the rules of customary international humanitarian law on distinction, proportionality, precaution, necessity and controllability that the potential indiscriminate and disproportionate effects of the use of nuclear weapons make nuclear weapons incapable of meeting the requirements of weapons that are acceptable in warfare. The illustrated cases of the victims of the nuclear attacks on Nagasaki and Hiroshima establish the fact that the use of nuclear weapons in an attack would not distinguish between civilians and the military. Secondly, injuries and deaths resulting from a nuclear attack would always be disproportionate to the achievement of a military objective because of the potential humongous devastation to humankind and the natural environment. On this

premise, it will be justified to conclude that the use of nuclear weapons violates the rules of IHL and should, accordingly, be prohibited.

4.3 Prohibition of the Use of Nuclear Weapons and IHL – Comparative Analysis of Other Weapons of Mass Destruction.

The rules of IHL have been responsible for the promulgation of many treaties which prohibit the use of weapons that cause superfluous and indiscriminate effects. Some of these treaties prohibit the use of cluster munitions, chemical and bacteriological weapons. However, no treaty has been made through the machinery of IHL, to expressly and specifically prohibit nuclear weapons.

In view of the fact that weapons which cause indiscriminate and disproportionate damage like chemical and biological weapons have been expressly prohibited by treaty, it is logical to inquire into the reason why nuclear weapons have not received the same treatment. This is even more so as the devastating effects of nuclear weapons far outweigh those of chemical and biological weapons.

Chemical weapons are weapons containing harmful chemicals such as nerve gas or poison, while a biological weapon is a weapon whose destructive effect is based on the pathogenic properties of microorganisms, the causative agents of diseases in man, animal and plants. Many states of the international community had at one time possessed or still possess either or both of these weapons. The use of chemical weapons in warfare differs significantly from the use of nuclear weapons. While nuclear weapons have been used only once in warfare against Nagasaki and Hiroshima, chemical weapons have been used many times. The effects of all three weapons are devastating and indiscriminate. Chairman of the Weapons of Mass Destruction Commission, Dr Hans Blix aptly stated that:

Nuclear, Biological and Chemical arms are the most inhumane of all weapons. Designed to terrify as well as destroy, they can, in the hands of either states or non-state actors, cause destruction on a

vastly greater scale than any conventional weapons and their impact is far more indiscriminate and long lasting.

In comparison to nuclear weapons, chemical arms have a relatively limited range. They create regional rather than global security problems and slow the tempo of operations and they are militarily more akin to conventional arms than to nuclear weapons. Both chemical and biological weapons have been prohibited through the machinery of IHL. The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC) was made to address the issue of chemical weapons. It entered into force in 1997. To prohibit biological weapons the Biological Weapons Convention, 1972 was established.

Both the Chemical and Biological Weapons Convention prohibit the production, development and stockpiling of the respective weapons. They also prohibit the use of the weapons. The conventions also provide for the destruction of the extant weapons in the arsenals of states. In contrast, the most significant Nuclear Weapons Treaty, the Nuclear Non-Proliferation Treaty, prohibits the proliferation and transfer of nuclear weapons only. It does not prohibit the use and storage of the weapons. It also does not provide that extant nuclear weapons should be destroyed.

The foregoing analyses give an indication that some states of the international community, namely, the nuclear weapon superpowers, have an interest in sustaining the possession of nuclear weapons. This assertion is based on certain indices. First of all, it was the nuclear superpowers that proposed and influenced the establishment of the Non-Proliferation Treaty. Through its provisions non-nuclear weapon states were made to undertake never to produce nuclear weapons with the reciprocal deal in accompanying protocols that they would be protected from nuclear attacks by nuclear weapon states. Without including provisions for the outright destruction of existing nuclear weapons as well as prohibition against the use of nuclear weapons, it is circumstantially apparent that the intent of the

nuclear powers in establishing the treaty was to prevent more states from attaining their nuclear status while they continue to enjoy the power and sense of security that nuclear weapons had created for them.

To substantiate the notion that nuclear superpowers are deliberately guiding law and policy to maintain the status quo between the nuclear ‘*haves*’ and ‘*have nots*,’ it is instructive to observe that the superpowers, specifically the U.S.A and U.K, labored to preserve the validity of nuclear weapons in their arguments before the International Court of Justice in the legality of nuclear weapons case.

4.4 Arguments of the U.S.A and the U.K before the International Court of Justice, for the Validity of the Use of Nuclear Weapons

Before deliberating on the matter, the court heard the arguments of many states for and against the legality of nuclear weapons. The United States of America argued for the permissibility of the use of nuclear weapons in reprisal against another state’s unlawful first use. It took the position that, even if it were to be concluded that the use of nuclear weapons would necessarily be unlawful, the customary law of reprisal permits a belligerent to respond to another party’s violation of the law of armed conflict by itself resorting to what otherwise would be unlawful. With this perspective, the implication is that an attacked state would be immune from any law seeking to prohibit the use of nuclear weapons since it would be carrying out a reprisal attack.

The problem with this argument is that it negates the basic notion of IHL, which is that in all circumstances of armed conflict; combatants must distinguish civilians and use proportionate weapons. IHL does not have exceptions for its rules based on whether a war is just or unjust. It operates in all circumstances and does not concern itself with first use or reprisal. It concerns itself only with fairness in the fighting itself. In fact, Additional Protocol 1 to the Geneva Conventions excludes the civilian population from being legitimate objects of reprisals. Notwithstanding the provision of Additional

Protocol 1, U.S.A took the position that members of the enemy civilian population are appropriate objects of reprisal attacks, even in nuclear war.

In contrast to the argument of the U.S.A, the Indian state argued before the court that the use of nuclear weapons in response to an attack by a conventional weapon would patently violate the principle of proportionality, but also a nuclear response to nuclear attack would violate the principle of discrimination, humanity, environmental security and probably the principle of neutrality as such an attack would not distinguish between combatants and non-combatants – causing civilian casualties, ravaging the natural environment and contaminating the territory of neighboring and distant neutral countries.

From foregoing discussions on the disproportionate effects of nuclear weapons, it is apparent that a nuclear response to a nuclear attack would most likely not ensure the survival of the attacked state, but would actualize into the destruction of all parties involved, including their neighbors. It will be logical to assert that both first-use and reprisal use of nuclear weapons would violate the basic principles of IHL.

4.4.1 Arguments for the Permissibility of the Use of Low Yield Nuclear Weapons

In its memorandum before the ICJ the United Kingdom argued that it is by no means the case that every use of nuclear weapons against a military objective would inevitably cause very great collateral civilian casualties. U.K cited as an example, the use of a low yield nuclear weapon against warships on the high seas or troops in sparsely populated areas. It argued that in such circumstances, it is possible to envisage a nuclear attack which causes comparatively few civilian casualties.

On its part, U.S.A argued that nuclear weapons can be used in a variety of ways. They can be deployed to achieve a wide range of military objectives of varying degrees of significance. They can be targeted in ways that either increase or decrease resulting incidental civilian injury or collateral damage;

and their use may be lawful or not, depending upon whether and to what extent such use was prompted by another belligerent's conduct and the nature of such conduct.

The ICJ did not endorse the arguments of both countries on the basis that conflicts involving the use of low-yield nuclear weapons did not exclude the possibility of escalation whereby the larger and more dangerous nuclear weapons would inevitably be used. In addition to the court's rejection of the arguments on the basis of potential escalation, other arguments may be put forth to debunk the notion of the permissibility of nuclear weapons based on the lesser effects of low-yield nuclear weapons. The foremost argument is that even if it were accurate that the use of low-yield nuclear weapons would conform with the principles of proportionality and distinction, that would still not form the basis for the permissibility of nuclear weapons since the larger, more destructive weapons, which have been and remain the core subject of concern about nuclear weapons, and the reason for the agitation for their elimination, still exist. In other words, the debate of nuclear weapons had always centered on the destructive thermonuclear weapons, although not precluding the smaller, tactical ones. Therefore, any argument to prove the mildness of nuclear weapons merely sidetracks, but does not address the pivotal issue about nuclear weapons. It has been argued even that U.S.A's argument in this regard lacks substantial merit, because while it maintains some low-yield nuclear weapons, its arsenal is made up predominantly of high-yield nuclear weapons.

Secondly, if the use of low-yield nuclear weapons was permitted on the basis that they do not cause disproportionate and indiscriminate effects, that would facilitate the covert sustenance of larger, more destructive nuclear weapons in the military arsenals of states if they eventually become outlawed, since the means of producing nuclear weapons would not be totally blocked.

The desire to sustain the relevance of nuclear weapons in their security policies and the possession in their military arsenals may be discerned from the various arguments presented by the U.S.A and the

U.K to validate the use of the weapons. It strengthens the notion that their nuclear posture is basically to prevent its proliferation to other states. It does not embody both the intent and structured plan towards complete disarmament. Although the hearings before the ICJ occurred in 1995, several years later this nuclear posture has not altered. For example, the 2010 U.S.A Nuclear Posture Review issued by the Obama Administration stated several times that U.S.A would use nuclear weapons only in ‘extreme circumstances.’ In other words, the use of nuclear weapons is *still* considered valid by the U.S.A albeit in *extreme circumstances*. It can be asserted that this nuclear posture has been enabled by the lacuna left in the ICJ’s opinion whereby it left a hanging possibility that the use of nuclear weapons by a state in self-defense *could* be legal.

4.5 Permissibility of the Threat to Use Nuclear Weapons

Another implicit validation of the continued possession of nuclear weapons in the military arsenals of nuclear weapon states manifests in the doctrine of nuclear deterrence. The nuclear deterrence doctrine rests on the premise that the possession of nuclear weapons by the superpowers is necessary to deter conflict because of the threat of its use. Conversely, the non-existence of nuclear weapons in the world would upset world peace and stability which was achieved after World War Two. If states are consistently aware and fear that if they engage in armed conflict nuclear weapon states could use nuclear weapons against them, states would not go to war but seek peaceful resolutions of their differences. This would enhance global peace and stability.

The validity of the foregoing argument invariably validates the continued possession of nuclear weapons. However, if the “use” of nuclear weapons is unlawful, can the threat to use it be lawful? If the answer is in the affirmative then it can be rightly argued that even if the use of nuclear weapons is declared unlawful, its continued possession may remain lawful. Hence the nuclear deterrence theory is

validated. However, if the threat to use that which is unlawful is equally unlawful, then the argument for the threat to use nuclear weapons relies entirely and exclusively on the lawfulness of the use of nuclear weapons.

In its opinion, the ICJ posited that it is unlawful under international law for a state to threaten to do that which it would be unlawful to do. The court stated that “if an envisaged use of nuclear weapons would not meet the requirements of international humanitarian law, a threat to engage in such use would also be contrary to that law.” Accordingly, the implication of a declaration of the lawfulness or otherwise of the “use” of nuclear weapons is great, because the threat to use anything whose use is unlawful is also unlawful. Interestingly, the United States conceded this position in its oral argument before the court as follows:

Each of the permanent members of the Security Council has made an immense commitment of human and material resources to acquire and maintain stocks of nuclear weapons and their delivery systems, and many other states have decided to rely for their security on these nuclear capabilities. If these weapons could not be lawfully used in individual or collective self-defense under any circumstances, there would be no credible threat of such use in response to aggression and deterrent policies would be futile and meaningless. In this sense it would be impossible to separate the policy of deterrence from the legality of the use of the means of deterrence. Accordingly any affirmation of a general prohibition on the use of nuclear weapons would be directly contrary to one of the fundamental premises of the national security policy of each of these many states.

It is clear that the ICJ did not endorse all the arguments presented before it for the permissibility of the use of nuclear weapons. The court was explicit in its decision that the use of nuclear weapons did not conform to the principles of IHL and was therefore unlawful. The ICJ, however, created a loophole in its opinion, whereby the use of nuclear weapons *could* be validated in extreme circumstances of self-defense where the survival of a state is at stake. In other words, while the court’s opinion projected

importantly and usefully, that IHL is the applicable law in determining the legality of the use and threat to use nuclear weapons, it still left a lacuna in the framework for the elimination under IHL by creating the possibility of a valid exception under international law. It did not go all the way to decide conclusively on the use of nuclear weapons in accordance with the cardinal principles of IHL which require that in all situations of armed conflict, the principles of proportionality and distinction must be complied with and cannot be derogated from. Indeed, the International Committee of the Red Cross, which is the guardian of IHL stated to the 51st UN General Assembly in its commentary on the ICJ's nuclear weapons opinion, that there is no exception to the application of the rules of IHL, whatever the circumstances.

CHAPTER FIVE

**AN EXAMINATION OF THE IMPLICATIONS OF THE ELIMINATION OF
NUCLEAR WEAPONS TO WORLD PEACE AND SECURITY**

5.1 Introduction

The world had been plagued by armed conflicts for many centuries preceding the development of nuclear weapons. Nuclear Deterrence theorists maintain that the world has enjoyed greater peace since World War II because of the existence of nuclear weapons, constituting a deterrent factor to war. If this theory is tenable, then the security of the world is invariably safeguarded by the presence of nuclear weapons and a move to completely eliminate them will inevitably reverse the progress made towards safeguarding the world. While nuclear weapons' advocates argue that the security of the world is safeguarded by the possession of nuclear weapons by states, anti-nuclear weapons' advocates argue that the security of the world is endangered by the continued existence and proliferation of nuclear weapons. They argue also, that the probability of the elimination of nuclear weapons would increase if the nuclear deterrence doctrine is invalidated.

The ultimate inquiry, therefore, would be whether the elimination of nuclear weapons would be detrimental or beneficial to the preservation of world peace and security. To determine the question, it is imperative to examine the accuracy of the nuclear deterrence theory because it plays a fundamental role in the preservation of nuclear weapons in the military arsenals and defense policies of states. If nuclear

weapons do play a positive role towards the maintenance of world peace and security, that singular fact negates the importance of the legal framework for their elimination. The questions that need to be answered in resolving these issues, therefore, are:

- i. If peace translates into the absence of war, has the world been more peaceful since the emergence of nuclear weapons in 1945?
- ii. Does the proliferation of nuclear weapons increase or decrease the probability of nuclear war?
- iii. Are there other theories on the preservation of world peace and security? Have they been exhausted?

5.2 Has the World been more peaceful since the emergence of Nuclear Weapons in 1945?

A perusal of world chronicles shows that there was never a time that mankind was not engaged in some kind of armed conflict. World conflicts have only differed in pattern, ammunition and frequency overtime. The first most brutal and widespread war in world history occurred between 1914 and 1918 and was accordingly called the 'First World War.' Predominantly a European war, it recorded a massive casualty of millions of deaths.

Perhaps the most rigorous scientific effort to explore the historical incidences of war is the Correlates of War Project, headed by Professors J. David Singer and Melvin Small. The project identified 118 interstate conflicts involving at least two states, one of which was a sovereign nation, which resulted in at least one thousand battle deaths. An appraisal of war trends in accordance with the findings of this project will be aimed at analyzing the frequency and fluctuation of war during the period of analyses. Since the definition of peace being the absence of war has been the predominant in all definitions presented in this dissertation, the period(s) when war is shown to have declined would invariably be regarded as more peaceful than the period(s) when war statistics are higher.

The project analyses divided the world system into five historical periods conforming to what many scholars and policy makers regard as major transition points in contemporary history thus:

- i. 1816 – 1848
- ii. 1849 – 1881
- iii. 1882 – 1914
- iv. 1915 – 1944
- v. 1945 – 1980

It is noteworthy that the end of the third phase leading into the fourth phase marked the beginning of the First World War while the tail end of the fourth phase and beginning of the fifth phase marked the beginning of the development of nuclear weapons as well as the Second World War.

The results of the study show that in the first phase there had been a total number of 20 interstate wars, 28 in the second phase, 24 in the third phase, 20 in the fourth phase and 26 in the fifth phase. The results show that war has been a recurrent phenomenon. There have been 118 of them and their frequency has fluctuated only moderately; the incidence has been fairly stable over time and no linear trend in the outbreak of wars is evident.

In discerning whether or not the incidences of war have declined since World War II, the study takes into cognizance that the number of sovereign nations comprising the international system has steadily increased over this time. This is important because the number of wars can be hypothesized to be a function of the number of actors – the number of opportunities for contact among them will increase as the number of nations increases and such contact is likely to generate more occasions for conflict and war. Therefore, where the incidences of war present as 20 in the first phase, the figure 26 in the fifth phase - the years after World War II - shows a decrease in frequency and not an increase because of the increase of sovereign nations in the international system and opportunities for contact

amongst them. Consequently, the study presents that there is a modest downward trend in the outbreak of wars between nations and when balanced by the number of nations, the Post-World War II era has been more peaceful than the periods that preceded it.

A reason for the decline in war in the Post World War II era has been attributed to the existence of nuclear weapons. In their study, Small and Singer found that the length of wars steadily increased between 1816 and World War II, but began a drastic decline thereafter. The wars since 1945 have simply been shorter. Similarly, the average number of nations participating in major wars (which had been rising steadily since 1815) has fallen sharply since World War II. Wars are also more geographically confined.

At this juncture the question that begs is, 'is it accurate that the world has been more peaceful since the end of World War II because there has been a downward trend in the incidences of interstate wars, and particularly among the superpowers who were major participants in the two World Wars?' The answer to the foregoing question must take into consideration that there have been several armed conflicts that occurred in the world after 1945, many of which have been very bloody with severe casualties. Some of the conflicts have been internally based, between people of a particular state. Some of the conflicts have been internationalized, within a particular state but with the involvement of third party states or allies while a few of the conflicts have been fully interstate, international wars.

One of the bloodiest protracted internationalized armed conflicts which occurred after 1945 was the Vietnam War. The war was fought for a period of over twenty years from 1954 to 1975 between the communist government of North Vietnam, supported by the Soviet Union and China and the government of South Vietnam backed by its principal ally, the U.S.A. The conflict resulted from the desire of North Vietnam to unify the whole country under a single communist regime modeled after that

of the Soviet Union and China. It was estimated that two million civilians died from both sides, while over a million soldiers died in all.

The Korean War, which was fought between North and South Korea for three years between 1950 and 1953, was like the Vietnam War, a manifestation of the Cold War tensions between U.S.A and the Soviet Union. It also occurred after 1945. This goes to show that the relative peace which existed between the world superpowers after 1945 did not exclude global tension and other international crises that nearly, but did not escalate into full-blown armed conflicts. The Cold – War era was a period where the United States of America and the Soviet Union were perpetually poised towards embarking on nuclear war at the trigger of one another if situations were not adequately contained. Some incidences of crises situations include the Cuban Missile Crisis and the Berlin Blockade.

Another major armed conflict that occurred in the world after 1945 was the Biafran War which occurred in Nigeria for three years between July 1967 and January 1970. It was a civil war fought by the Eastern region of Nigeria which had declared itself the independent state of Biafra and the rest of the country which struggled to maintain the unity of the country. It was a bloody war and the worst experienced in Nigeria's history.

In the post Cold-War era still, very bloody wars have been fought in the world. One of such was the three-year intense armed conflict in Bosnia and Herzegovina between the three ethnic groups, Muslim Bosniaks, Serbs and Croats between 1992 and 1995. The conflict manifested in the ethnic cleansing of the Muslim Bosniaks by the other ethnic groups. The Muslims were killed and some expelled from their indigenous settings. The death toll amounted to about 100,000 and an estimated two million people were displaced. Even as the Bosnian War was ongoing, one of the worst human massacres to occur in Africa took place in Rwanda from April 6th 1994 to July 1994. It was also an ethnic cleansing of the minority

ethnic *Tutsis* by the majority ethnic *Hutus*. Lasting 100 days, the Rwanda genocide left approximately 800,000 *Tutsis* and their sympathizers dead.

The Correlates of War Project had in fact, taken an inventory of military confrontations which had not escalated into full-blown wars from 1820 – 1980 during the Cold War era. The results revealed that:

- i. The number of military confrontations had increased over time.
- ii. The average number of crises underway had risen in the 20th Century compared with that of the 19th.
- iii. The nuclear era had been the most crisis-ridden period.

Although a major war the magnitude of the two World Wars had not occurred after 1945, the nuclear age has been characterized by global tension and violent conflicts between developing countries as well as increased internal conflicts, particularly in developing countries. The conclusion that may be drawn from these analyses, therefore, is that the world has not been in a ‘state of peace’ since the emergence of nuclear weapons in 1945.

5.3 Does the Proliferation of Nuclear Weapons Increase or Decrease the Probability of Nuclear War?

It has been argued that the proliferation of nuclear weapons might reduce, rather than increase the probability of nuclear war. Evidence supporting this assertion, if overwhelming, will suggest that the framework for the elimination of nuclear weapons is unnecessary, possibly destructive and should be replaced by a framework for safe nuclear acquisition and proliferation. The argument for nuclear proliferation is supported by the deterrence doctrine.

The deterrence doctrine originally emerged in the United States of America as a defense policy against the Soviet Union in the mid 1940’s, which sought to persuade the Soviet Union not to attack the

U.S., its allies and vital interests by threatening nuclear counterattack. The relationship that prevailed throughout the Cold War between the two nuclear world powers was hinged on the doctrine of nuclear deterrence. Throughout the Cold War the acceptance of the theory of nuclear deterrence was sharply divided between two points of view, one held by deterrence theorists and the other, by abolitionist theorists, both claiming peace as their ultimate goal. The deterrence theorists' point of view was that although proliferation might increase the probability of nuclear war in the short run, in the long run, proliferation would decrease and eventually eliminate the probability of nuclear war. This position was supported by the argument that nuclear weapons already existed in the world and nuclear technology was widespread, hence nuclear disarmament impossible. They concluded, therefore, that the best feasible goal was to proliferate nuclear weapons, selectively, but steadily. This would deter nuclear warfare because of the fear of mutual destruction.

For the deterrence theorists the danger originally envisaged was intentional actions by the Soviet Union, which made the preservation and enhancement of nuclear weapons necessary for the U.S.A. The deterrence theorists relied on the well-designed technology to keep deterrence stable and prevent accidents. They also trusted that decision-makers could retain control of events, even in crises. They, therefore, concluded that intentional Soviet action had been and would be deterred by well-designed U.S. technology and sensible decision-making.

For the abolitionists, the nature of danger envisaged was unintentional actions: escalation, possibly accidents. They posited that the danger of accidents in complex technical systems basically could not be reduced to acceptable levels by technical fixes. Furthermore, escalation in crises might get out of control, resulting in a nuclear war nobody originally intended. Conclusively, nuclear war was all too likely as a result of some technical and/or decision-making failure. Hence nuclear war could be prevented by abolishing the means of destruction.

Analyzing the two divergent views, the point that can be deduced is that each side supported its contention with the ultimate goal of peace. While the deterrence theorists relied absolutely on the rationality of decision-makers in both the U.S.A and the Soviet Union, to make deterrence viable, the abolitionists did not rule out the possibility of human error or accidents, which could escalate into nuclear catastrophe. It can be seen that throughout the Cold War era there had not been any use of nuclear weapons in a war nor had there been the use of nuclear weapons through human error or accidents. This fact would seem to support the contention of the deterrence theorists. However, this aspect of nuclear deterrence would be irrelevant if no state possessed nuclear weapons. In other words, the issue of acquiring and maintaining nuclear weapons in order to deter another nuclear armed state from a nuclear attack would arise only because there are nuclear weapons in the world. Conversely, if all nuclear weapons were destroyed or did not exist, no state would need to arm itself against a nuclear attack. As long as nuclear weapons exist in the world, therefore, this contention of nuclear deterrence would remain relevant to nuclear armed states. Any other non-nuclear weapon state could also adopt the doctrine as a reason for aspiring to develop its own nuclear weapons.

Although the Cold War between U.S.A and the Soviet Union ended in 1990, nuclear weapons have remained in the arsenals of both states, as well as in the arsenals of other nuclear armed states and the nuclear deterrence doctrine has not lost its relevance in their security policies. Nuclear deterrence theory today anchors the national security of all states that possess nuclear weapons. Certain principles or requirements of nuclear deterrence are the same for all such countries, for instance, the ability to threaten with ‘unacceptable damage,’ or the ability to ‘raise the costs’ of an action that an adversary might want to take by threatening punishment that would make the act seem meaningless and even regrettable.

The expanded version of nuclear deterrence views nuclear deterrence from a wider perspective and beyond the narrow defense policies of the U.S.A and the Former Soviet Union. It is a doctrine poised to ensure a balanced deterrence in the whole world among all nations. The assumption is that in a conflict between a nation with a nuclear capability and one without, the conflict may become nuclear while in a conflict between two nuclear powers, the conflict is unlikely to become nuclear by reason of fear of retaliation. Then, as the number of nations with nuclear weapons increases, the chance of bilateral conflict becoming nuclear initially increases and then decreases to zero when all nations are nuclearly armed.

As additional nations acquire nuclear weapons, there is even greater uncertainty over the reaction of other nuclear powers to the initiation of a nuclear war, rather reinforcing general deterrence and enhancing stability against war outbreak. The probability of a deliberate initiation of a war decreases as the acquisition of nuclear weapons restrains the existing nuclear nations. Hence nuclear analysts like Kenneth Waltz theorized that the world has enjoyed greater peace since World War 2 because of the presence of nuclear weapons and advocated that the more nuclear weapons in the possession of more states, the better for world peace and security. The case for the expanded version of the nuclear deterrence doctrine was strongly projected by Pakistani's prominent nuclear scientist, A.Q Khan, in these words:

The question of how many weapons are required for credible deterrence against India is purely academic. India doesn't need more than five weapons to hurt us badly and we wouldn't need more than 10 to return the favor. That is why there has been no war between us for the past 40 years. Don't overlook the fact that no nuclear-capable country has been subjected to aggression or occupied, or had its borders redrawn. Had Iraq and Libya been nuclear powers, they wouldn't have been destroyed in the way we have seen recently. If we had had nuclear capability before 1971, we would not have lost half of our country —present-day

Bangladesh— after disgraceful defeat. India and Pakistan understand the old principle that ensured peace in the Cold War: mutually assured destruction. The two can't afford a nuclear war, and despite our saber rattling, there is no chance of a nuclear war that would send us both back to the Stone Age.

The foregoing illustration of nuclear deterrence suggests that the security of a state is strengthened and fortified against attack from other states when it has nuclear weapons. It is hinged essentially on self-preservation and does not put into consideration the larger issue of global peace and security. What, for example, would become of the world if every nation that could afford it decided to develop nuclear weapons to ensure its safety from the rest of the world? Furthermore, Khan's contention that there has been no war between Pakistan and India for the past forty years because both states possess nuclear weapons ignores the fact that they have nonetheless engaged in consistent cross-border clashes for several years, which have claimed several lives and properties. Even though these clashes do not qualify as full-scale wars, the implication is that both states have not been living in a state of peace. It was estimated that around 30,000 people died in Kashmir between 1999 – 2010 because of the cross-border clashes between India and Pakistan.

Furthermore, Khan's thesis does not consider the fact that the phenomenon of terrorism has become internationally prevalent and particularly in Pakistan, making the entire region vulnerable to nuclear disaster if and when terrorists get hold of the state's nuclear weapons. India has been a subject of several terrorist attacks attributed to Pakistani-based terrorists. In July 2008, the Indian Embassy in Kabul, Pakistan, was bombed. In November 2008, ten gunmen launched multiple attacks in Mumbai, killing 116 people. On February 13, 2010, a bomb in a bakery in the western city of Pune killed thirteen people.

Studies have been conducted to test the hypothesis of nuclear deterrence. The studies have examined and analyzed the patterns of conflicts between states since 1945, to determine the exact

deterrent impact of nuclear weapons on armed conflict. A perusal of such studies is poised to give a clearer perspective of nuclear weapons' role in regulating warfare and consequently maintaining world peace as far as the '*peace as absence of war*' definition is relevant.

A study was conducted which examined the escalation patterns of conflict of nuclear and nonnuclear states in the 393 international confrontations that occurred between 1946 and 1976. The study was carried out to verify certain assumptions, one of which is the general assumption that nuclear weaponry provides a military and psychological advantage in conflict situations for any nation that possesses it. Secondly, that among developed countries, major war, nuclear or conventional, is no longer considered a realistic policy option; although nuclear weapons have not fundamentally affected the crisis behavior of major wars. They have rather replaced the occurrence of major wars with escalation of crisis, short of war.

Of the 393 cases, 111 conflicts involved at least one nuclear power. The remaining 282 cases were disputes that involved only nonnuclear states. Among other things, the findings of the study indicated that dispute escalation patterns are affected by weapons technology – the distribution of nuclear capabilities does impact the patterns of escalation in serious international disputes. Interestingly, the patterns of conflicts between nuclear and nonnuclear states differ significantly. It was demonstrated that disputes between nuclear powers are more likely to escalate, short of war, than are nonnuclear disputes. In conflicts between nuclear and nonnuclear states, the possession of nuclear weapons has no evident inhibitory effect on the escalation propensities of the nonnuclear opponent. In mixed confrontations, nonnuclear dispute initiators or targets act much more aggressively than do their nuclear rivals. In fact, the preceding fact is further demonstrated by the finding that in disputes between nuclear and nonnuclear states, the nonnuclear opponent has almost always won.

The existence of nuclear weapons and knowledge of their destructive magnitude has obviously tempered the behavior of nuclear actors. The findings indicate that of all the serious disputes that have occurred between nuclear states since 1949, not one has escalated to war, whereas numerous conflicts between nonnuclear states have crossed the war threshold. Nonnuclear powers, without the threat or fear of mutually assured destruction of nuclear weapons are understandably prone to delve into full-scale war. The study concluded, therefore, that nuclear weapons lack efficacy as an escalation deterrent in confrontations with nonnuclear states. In other words, the deterrence theory is relevant to nuclear powers only and has virtually no influence or effect in deterring conflicts between nonnuclear states. Even in conflicts between nuclear and nonnuclear states, it has no restraining effect on the nonnuclear power. It has however tempered behavior of nuclear powers, changing the face of their conflict interactions from full-scale bloody wars to escalated conflicts, short of war.

Paradoxically, the fact that nuclear weapons have been shown to have no inhibitory effect whatsoever on nonnuclear states involved in conflict and conversely, have such effect on nuclear weapons states, has demonstrated that nuclear weapons *do* have a deterrent effect, albeit on their possessors. Their possession by the world superpowers has been able to deter major conflict between the superpowers. However, they have not had any deterrent effect on wars between nonnuclear powers.

5.3.1 Analysis

Having been examined in the light of world history, what can be said of the nuclear deterrence theory is that it does not provide a definitive solution to the question of world peace. History has shown that the post World War II era has been ridden with escalating crisis, short of war, internationally, and numerous internal conflicts particularly in developing countries. If it has served as a deterrent to anything, nuclear weaponry has probably only aided in the prevention of the occurrence of a major World War.

If the nuclear deterrence theory is to be validated, then the question must be asked whether every country should possess nuclear weapons to deter other countries from attacking it in conventional or nuclear warfare. The obvious answer is that apart from the fact that the world would be a working time bomb, ready to detonate at the whims of any careless government, most countries are not technologically equipped or sophisticated to possess and maintain nuclear weapons. Furthermore, the accuracy of the assertion that it was the presence of nuclear weapons that deterred the occurrence of a major World War since 1945 is questionable. No one can say for certain why there has not been a major war since 1945.

However, even if the deterrence theory cannot be tested and one can merely take for granted that nuclear deterrence does work and has worked all these decades, the present challenges in the international scene, namely, the rise of terrorism and international tension arising from nuclear aspirations, are not challenges that nuclear deterrence theory has solutions to. Simply put, if nuclear deterrence has worked, it has prevented the occurrence of World War 3. The relevant question now is; can it prevent the occurrence of an anarchic war when nuclear weapons fall into the hands of terrorists? An adequate answer to this will have to consider the fact that the deterrence theory rests on the fear of mutually assured destruction from nuclear weapons' detonation. One outstanding characteristic of terrorists' activities is the engagement in suicide killings, sacrificing their own lives to achieve their objectives. Obviously, terrorists would not be deterred by the fear of mutually assured destruction, making the deterrence theory non-viable in this current scenario.

5.4 Challenges to World Peace and Security Posed by Nuclear Weapons

In the 1940s and through the Cold War between the nuclear superpowers, the greatest nuclear fear entertained by states was the fear of the detonation of a nuclear bomb by either the U.S.A or the Soviet

Union. However, with the passage of time and progression in weapons technology, as well as new occurrences in international affairs, new challenges in the sphere of nuclear weapons have emerged. The most prominent of these challenges manifest in the illicit spread and proliferation of nuclear weapons, potential nuclear terrorism and nuclear warfare.

5.4.1 Nuclear Terrorism

The reality of nuclear insecurity is growing, particularly in nuclear weapons states. The insecurity stems from the fear of the acquisition of nuclear weapons or materials to make them by non-state actors, namely terrorist groups. So far terrorists in different parts of the world have demonstrated acts of terrorism using conventional weapons. Nothing in their ways of operation suggests they would refrain from using nuclear devices against their targets once they get their hands on them. This supposition is supported by the fact that terrorists' activities are characterized by indiscriminate killings with little or no consideration at all to distinguishing potential casualties, sometimes even themselves in suicide killings.

Pakistan is a glaring example of a state in which the tide of terrorism is steadily rising. The activities of terrorists have manifested in the territory of its arch rival, India. In 2008, ten gunmen with enough arms and ammunition to kill 5,000 people attacked a big hotel in India, the Taj, the Trident-Oberoi, the main railway station, a popular restaurant and a cinema. It was estimated that 166 people died in those attacks. All the attackers, except one, died in the suicide bombings of the buildings. The only surviving attacker confirmed that he was from Pakistan and his fellow attackers were either from Pakistan or had been trained there. According to the South Asia Terrorism Portal (SATP), a terrorist database, 8,953 civilians were killed in terrorist violence from January, 2009 to September, 2012 in Pakistan. Pakistan is

a home to many rising terrorist groups and this new generation of terrorists is more willing to engage in suicide attacks.

With this new and fast-growing phenomenon of terrorism, therefore, a new daunting challenge is thrown to the international community in its strife against nuclear weapons' spread. It is one thing for state actors to exercise restraint in the use of nuclear weapons and quite entirely another for suicide terrorists. That is because suicide terrorists would only be too willing to destroy the whole world if given the opportunity. If by any chance they take hold of the nuclear facilities of a nuclear weapon state like Pakistan, not only would the Asian region be jeopardized but the whole world because of the terrorist networks worldwide. In fact, prominent Indian journalist, Raza Rumi, while commenting on the November 25th bomb attack on *Shia's* in Dera Ismail Khan, Pakistan, which killed a dozen people, admitted that there is a diminishing capacity of the Pakistan state to handle terrorism.

The phenomenon of terrorism has become universal and many states are known to have terrorist groups within them. Hence the names *Al-Qaeeda*, *Al-Shabab*, *Boko Haram* among many others are prominent terrorist groups operating diversely. Affected states include Afghanistan, Somalia, Pakistan, Nigeria, Iraq, Sri Lanka and Columbia. In Nigeria, the *Boko Haram* group has claimed responsibility for the bombing of many places including the United Nations Headquarters in the Federal Capital Territory and many churches in Northern Nigeria. On Sunday 26th November, 2012, two car bombs driven by suicide attackers hit a church at the Jaji military cantonment in Kaduna, killing at least eleven people.

Another nuclear weapon state that has been affected by terrorist attacks is Russia. The 2004 Belsan raid demonstrated that networks of radical separatists based in the North Caucasus are willing and able to inflict indiscriminate casualties in Russia. By staging a horrendous attack – killing 331 people, half of them children – the radical separatists crossed the moral threshold between conventional and catastrophic terrorism.

Using Russia as a case study of a nuclear weapons state, in fact, the second biggest nuclear weapons state, it is very discouraging to the security of the world to learn about the safety maintenance of its nuclear facilities. It is reported that the Russian government has yet to focus sufficiently on securing facilities that produce, process, and store nuclear materials. A sizeable portion of even those nuclear facilities – where warheads are stored or handled – have yet to undergo U.S-funded security upgrades to the level recommended by Material Protection, Control and Accounting (MPC & A) standards. The security culture also remains too weak, with guards patrolling with unloaded guns to avoid accidental firing, propping up doors for convenience, and turning off detectors when annoyed by false alarms.

All these and more do not augur well for the prospect of world peace and security where there exists a fear of terrorists infiltrating nuclear facilities. Facts available reveal that Chechnya-based radical separatists have acquired radioactive materials, plotted to hijack a nuclear submarine and attempted to put pressure on the Russian leadership by planting a container with radioactive materials in Moscow and threatening to detonate it.

So far, there have not been reported or known incidents of terrorists using nuclear weapons in their operations. The reason for this undoubtedly is that they have not had access to such weapons yet. However, there are two dangerous trends in international affairs which indicate disturbingly that the likelihood of such happening in the near future is there; one is the global rise in terrorism and the other is the rise in the quest for non-nuclear states to possess nuclear weapons. There have been reported incidents also, over the years, of terrorists attacking a U.S nuclear weapons base in Germany as far back as 1977 and terrorist teams carrying out reconnaissance at Russian nuclear warhead storage facilities in 2001. There have also been documented cases of outsider thefts of nuclear material not instigated by terrorists – though in the known cases, these outsiders had help from insiders. Once terrorists have

acquired a nuclear weapon or the materials to make one, the policy options available to reduce the danger of nuclear terrorism become far more limited.

There have been projections by analysts on the possibilities of terrorist groups getting hold of nuclear weapons and the consensus appears to be that no nuclear-weapons state would deliberately offer nuclear weapons to independent groups of people. Some have opined that a nuclear attack might be one of the most difficult missions a terrorist group could hope to try, but if a sophisticated terrorist group acquired a stolen nuclear bomb or enough nuclear material to make one, there can be a few grounds for confidence that they would be unable to use it.

The probability of the use of nuclear weapons today remains lower than during the Cold War era but it is clearly increasing. This threat appears significantly more real today than it was in the 1970's and even in the first half of the 1980's when nuclear tensions were quite acute. Although arguing for selective nuclear proliferation, nuclear analysts, Bueno de Mesquita and William Riker acknowledged the dangers of nuclear proliferation in these words, "Nuclear proliferation will be likely to enhance the opportunities of nonterritorial terrorist groups to seize nuclear weapons. The miniaturization of nuclear weapons has already made feasible the clandestine movement of low-yield nuclear warheads. In that sense, proliferation would add to an already existing danger."

5.4.2 Proliferation and Spread of Nuclear Weapons

With the tensions between the international community and states like North Korea and Iran, it is apparent that the issue of proliferation and spread of nuclear weapons will not go away until something constructive is done about it. As long as some states in the international community continue to possess nuclear weapons, other states would feel entitled to possess it as well. This is manifesting in the nuclear aspirations of non-nuclear weapon states. While nuclear deterrence theorists profess that the

proliferation of nuclear weapons will deter war, evolving nuclear dynamics actually point to the contrary. As a matter of fact, nuclear proliferation currently points to the likelihood of military confrontations actually occurring. On 12th February 2013, North Korea carried out its third nuclear test in defiance of warnings from the United Nations Organization and the United States of America. In reaction to threats from the U.S.A, North Korea threatened that it would target its nuclear weapons towards the U.S.A in a military attack. Meanwhile, South Korea had been threatening to attack the North because of the latter's progressive nuclear weapons program.

The threatened war between Israel and Iran also envisages a situation whereby some Arab allies of Iran like Syria and Lebanon would rally behind Iran in a military confrontation with Israel backed by the U.S.A. If indeed, Iran had developed its nuclear weapons and tensions escalate and nuclear weapons are eventually used, the Middle East and a great part of the world would inevitably be destroyed. That is the reality and perhaps the world is heading towards that direction.

5.4.3 Illicit Spread of Nuclear Materials

Another area of concern regarding the peace and security of the world in this context is the illicit spread of nuclear and other radioactive materials used in making nuclear weapons. The United Nations News Centre reported in September 2007 that more than 250 incidents involving unauthorized possession and related criminal activities, theft or loss of nuclear or other radioactive materials, and other activities such as unauthorized disposal of radioactive materials were reported to the UN Illicit Trafficking Database (ITDB) in 2006. Of the 250 incidents 150 occurred in 2006 and the rest mainly in 2005. The implication of the foregoing apparently is that nuclear materials have been or are being circulated amidst unknown actors.

5.5 Implications of the Elimination of Nuclear Weapons

The foregoing discourse has projected the fact that elimination of nuclear weapons would invariably augur well for the maintenance of world peace and security. Conversely, the continued existence of nuclear weapons in the world points to the potential destruction and extinction of humankind and the natural environment. The negative implications of the possession of nuclear weapons are quite simply:

- i. Depletion of the health of individuals arising from various activities involving nuclear weapons, namely, manufacture, stockpiling and testing of nuclear weapons, as well as the disposal of nuclear waste.
- ii. Potential nuclear warfare and the extinction of a large portion of the human race and the natural environment.
- iii. Illicit spread and proliferation of nuclear weapons, leading to the use of nuclear weapons by non-state actors, namely, terrorist groups resulting in catastrophic consequences.
- iv. Nuclear accidents resulting in unexpected negative consequences.

If nuclear weapons are eliminated from the earth, therefore, these negative variables will not exist, leading to the conclusion that the elimination of nuclear weapons has only positive implications for the maintenance of world peace and security. The overall positive implication for the elimination of nuclear weapons from the earth is that all the negative effects of nuclear weapons' possession as identified above, would be averted and it will be the better for the preservation of world peace and security.

5.6 Are there other theories on the preservation of world peace and security?

The thesis of this segment is that there are many theories on how the peace and security of the world may be achieved and preserved and these theories have not been utilized and exhausted. This is poised to further crystallize the contention that the world does not need nuclear weapons to maintain a balance

of peace between nations. If nations were to come together and explore constructive means of achieving and maintaining world peace, the nuclear deterrence doctrine would be effectively diminished. The following are some world peace theories put forth:

5.6.1 The Democratic Peace Theory

This theory proposes that democracies are as war prone as nondemocratic states, yet democracies almost never engage each other in militarized interstate disputes. The proponents of the democratic peace theory assert that democracy accounts for the drastic reduction in levels of international conflict and brings the probability of war to near zero. According to them, the theory is based on strong empirical evidence and the fact that democracies have conducive conflict-resolution mechanisms which make recourse to war unlikely.

Regarding the foregoing proposition, it is apparent that a dictatorial regime in a state is less likely to engage its people in dialogue, less of all another state. Democracies on the other hand, by virtue of their accessibility norm are more likely to engage one another in dialogue than resort to violence. Furthermore, they are obliged to adhere to public consensus which would more likely find the idea of war threatening, costly and unnecessary. The theory of democratic peace assumes that if all the countries of the world were to become democratic, the world would inevitably be peaceful.

The theory has however been criticized by realist and cultural critics. Realist critics basically reason that internal processes and structures play a negligible role in shaping a nation's security policy. The cultural critics argue that the democratic peace literature focuses only on international war, ignoring colonial or imperial wars. Secondly, when short-of-war conflict is being used, it does not take into account covert interventions.

Some cultural critics have argued that democratically elected political elites have found it quite easy to obtain consent from the general public for imperialist wars. In such wars against relatively weak and technologically unsophisticated opponents, the elites and general public expect an easy victory and the target is portrayed as racially or ethnically different. Indeed, history shows that even where consent of the general public was denied, powerful democracies had prevailed upon non-democracies in wars with different intents. An example is the unauthorized 2003 invasion of Iraq by the United States of America and the United Kingdom. The invasion was effected against the wishes of the citizens of both states and was preceded by anti-war protests all around the world including, USA and Great Britain.

Haas argues that it is precisely democracies that have made colonial conquests and have fought wars to prevent the liberation of the colonies. He asserts that excluding colonial wars excludes some of the bloodiest wars fought by democracies. Examples are given of democratic presidents who facilitated the ideology of ethnocide, or who were ethnic cleansers. U.S.A Presidents, Jefferson and Jackson for example, advocated extermination of Native Americans and Roosevelt thought their extermination ‘was ultimately beneficial as it was inevitable.’

However, democratic peace theorists argue that in contrast with a common claim in the literature, being democratic does not imply more involvement in colonial war. Their findings rather indicate that democracy has had an inhibiting effect on extra systemic war involvement. Claims to the contrary are based on failing to distinguish the effect of democracy from other causal factors. By and large, proponents of the theory maintain that none of the critiques of the theory damages its core in any significant way and none explains away the fact of peace among democracies.

The truism or otherwise of the democratic peace theory may be ascertained by having a cursory look at the antecedents of states that have consistently been ranked as ‘democratic states’ by popular democracy indexes. As a matter of fact, two nuclear weapon states, the United Kingdom and the United

States of America qualify as such. Both states have not engaged in any interstate wars since the Second World War terminated and that fact might add a lot of weight to the arguments of the democratic peace theorists. That notwithstanding, however, U.S.A and the U.K have instigated wars in other weaker states with the sheer force of their influence in the international community. Glaring examples are manifest in the wars that occurred in Afghanistan and Iraq in the early 21st century.

5.6.2 Peace through Free Trade/ Capitalism Theory

According to this theory, the major wars of history were started by the more controlled economies of the time against the freer ones and that capitalism gave mankind the longest period of peace in history – a period during which there were no wars involving the entire civilized world – from the end of the Napoleonic wars in 1815 to the outbreak of World War I in 1914. Although the political systems of the nineteenth century were not pure capitalism but mixed economies, the element of capitalism was dominant. It was as close to a century of capitalism as mankind has come.

A variant of this theory, ‘Cobdenism’, was founded by the English man, Bob Cobden. It proposes that by removing tariffs and creating international free trade, wars would become impossible because free trade prevents a nation from becoming self-sufficient, which is a requirement for long wars.

Adherents of the free trade theory stipulate that free trade, and not just trade, promotes peace by removing an important foundation of domestic privilege – protective barriers to trade – that enhances the domestic power of societal groups likely to support war, reduces the capacity of free-trading interests to limit aggression in foreign policy and creates mechanism by which states can build supportive coalitions for war. Furthermore, free trade promotes peace through communication and transnational ties that increase understanding among societies and the potential for cooperation. While expanding the international web of commerce through specialization, trade makes war less likely by increasing the

costs of severing such economic links. Interdependence makes war less likely because of its efficiency over conquest in acquiring resources necessary for growth and prosperity.

Proponents of free trade argue to the effect that dependent states will likely weigh the benefits of maintaining normal trading patterns against the potentially large economic cost of engaging in military conflict; and this will deter states from engaging military force to solve their political conflicts.

Secondly, free trade has the potential of boosting commercial growth so much that the incentives for economic gain through conquest or plunder diminishes simply because it is much easier and less bloody to generate economic growth through trade. A third argument is to the effect that free trade has the potential of socio-cultural integration, so much that when the convergence of peoples of different nationalities is easily facilitated, ingrained national identity and loyalty are de-emphasized and this reduces the likelihood of competition between governments and consequently, military conflict.

Some scholars, drawing on bargaining models, argue to the effect that free trade has the potential of providing a platform for dialogue and negotiation amongst nations in events of political conflicts, instead of resorting to war since they have free and prosperous trade ties that bind them together.

Critics of this theory have tried to refute the claim that free trade promotes peace between states by using as a case study, the global economy prior to World War 1, which they characterized as an open trading economy that fostered interdependence among economies. Since the prewar economy represented the kind of economy ideal to the peace through free trade theory, the fact that World War 1 nonetheless happened, disconfirms evidence of the theory. However, pro-capitalism/free-trade theorists refute this conclusion by asserting to the effect that it is an erroneous assumption that increasing trade flows indicate liberal commercial policies. In other words, although there was a reduction in transportation costs in the prewar global economy, thus increasing the flow of trade, it did not translate to a relaxation of commercial policies. Some have argued that apart from Great Britain, the great powers

all shaped the dynamics of the labor market through conscription, for example, Russia received nearly two thirds of its public revenues from tariffs and state-owned assets. Hence the pre-World War 1 global economy did not qualify as an economically liberal one and therefore could not be used to adequately refute the peace through free trade hypotheses.

5.6.3 Peace through Law

This theory proposes that world peace can be achieved by substituting the rule of law for the rule of force at the international level to resolve international conflict. The theory is however not proposing the ‘use of force’ in compelling adherence to law; rather it proposes the achievement of world peace through international law, which can be enforceable. Proponents of this theory though acknowledging the weaknesses and inefficiencies of international law and institutions, nonetheless point out that there have been milestones reached in international law since the time of Hugo Grotius in 1625, through the establishment and growth of international institutions to the 21st century. Against that backdrop, it will not be idealistic to envisage a global enforceable legal structure in future.

Attached to this theory are propositions for a global rule of law involving the creation of an expanded International Criminal Court of Justice with compulsory jurisdiction, coupled with some kind of international equity tribunal to resolve controversies of any nature whatsoever. The proponents propose further, for the creation of an international police force, as well as a United Nations Peace Force which excludes the possibility of the veto problem in the UN Security Council.

Although the foregoing proposal does place emphasis upon the role of global law and legal institutions in securing peace, there is no suggestion that the law by itself will somehow miraculously transform the world. Obviously more than mere ‘legal change’ is required. It will take fundamental social and political change. It will take increased understanding amongst countries, facilitated by vastly

increased exchange programs, twinned universities, worldwide internet and interfaith exchanges, among other things. The proponents opine that all these things inevitably play together. Progress on one front will facilitate progress on the other fronts.

Progress on human rights and economic development will facilitate the kinds of normative changes needed for significant arms reduction and a greater willingness to rely upon global legal institutions. Arms reduction will permit greater economic and human development and a blossoming of humanity's creative capacity for good.

5.6.4 Analysis

The foregoing analyses of world peace theories reveal that there are many propositions as to how to achieve the goal of world peace. Some of the theories are based on indices drawn from history, for example, the 'peace through free trade' and 'democratic peace' theories. Conversely, some of the theories, like the 'peace through law' are based on projections into the future. It is obvious that it will never be known for certain if any or a combination of these theories would be effective in ultimately safeguarding world peace and security until they have been proactively incorporated in world policy and thoroughly exhausted.

CHAPTER SIX

AN EXAMINATION OF THE ENFORCEMENT OF NUCLEAR WEAPONS LAWS

It has been established that a legal framework within which the elimination of nuclear weapons may be achieved, exists. The framework consists predominantly of treaties which provide a premise for control, limitation and eventual elimination of nuclear weapons. The mechanisms for the enforcement of these

laws have been provided in the treaties creating them and generally, in the body of international law. A daunting fact, however, is that certain impediments hinder the successful enforcement of nuclear weapons laws.

It has often been debated by scholars whether or not international law is law proper. This is because unlike municipal law, it lacks the inherent capacity to adequately enforce its rules. The issue of nuclear weapons is the business of international law as the laws which govern it are based on the agreements between states, just as the possession, use and elimination of nuclear weapons have international ramifications. The limitation of the capacity of international law to adequately enforce the international rules governing the elimination of nuclear weapons is, therefore, a substantial consideration in any discourse on enforcement of nuclear weapons law. Furthermore, the issue of nuclear weapons has been inextricably linked with international politics. The problems involved in the intertwining of international politics with the enforcement of nuclear weapons law constitute another crucial issue of consideration in this discourse.

6.1 Conceptual Analysis of the Enforcement of Nuclear Weapons Law

The act of enforcing a law or regulation entails the activity of compelling obedience to such law or regulation. Obedience to nuclear weapons law entails the observance of the non-proliferation rule by all the states of the international community, as well as the elimination of nuclear weapons in states that possess them. Ambassador Richard Butler cited two important aspects of enforcing nuclear weapons law. First is a very effective system of verification of compliance with whatever instruments have been adopted to bring about a world without nuclear weapons. Second is a reliable system of enforcement against those who may have decided to defy or cheat upon the system. Also, enforcing international law of nuclear weapons means that the international community is prepared to use persuasive and, if non-

violent measures do not succeed in bringing a rule-breaker back to compliance, coercive means to prevent any actor to acquire nuclear weapons or to dig out concealed weapons which are clandestinely exempted from the disarmament process.

6.1.1 What Laws are to be enforced and who enforces them?

The enforceable nuclear weapons laws are the multilateral and bilateral treaties on nuclear weapons which have taken effect or come into force. All other components of the legal framework for nuclear weapons elimination namely, judicial opinions of the International Court of justice, resolutions of the United Nations bodies, principles and guidelines of nuclear disarmament agreed to by states in conferences and reports have persuasive effect only. They also provide guidance towards and a premise upon which more concrete laws on nuclear weapons may be established. The nuclear weapons treaties which are subject of enforcement are:

- i. The Nuclear Non-Proliferation Treaty, 1968.
- ii. The five Nuclear Weapon Free-Zone Treaties.
- iii. Other treaties creating nuclear weapon free-zones in the world.
- iv. The bilateral treaties between states.

6.2 The International Atomic Energy Agency's (IAEA) Verification of Compliance with Nuclear Weapons Treaties: The First Component of the Enforcement Mechanism.

The NPT names the International Atomic Energy Agency (IAEA) as the institution for the enforcement of its provisions. Similarly, all the regional treaties creating nuclear weapon free zones mandate the IAEA to serve as the body that verifies compliance of state parties to the treaties. The IAEA was set up as the world's "Atoms for Peace" organization in 1957 within the framework of the United Nations as a

specialized agency. The Agency works with its member states and multiple partners worldwide to promote safe and peaceful nuclear technologies. Its other function is to ensure that states are not diverting nuclear technology to military uses.

The NPT stipulates that each non-nuclear weapon state shall go into a safeguards agreement with the IAEA in accordance with the Statute of the IAEA. It is, however, in the IAEA Statute that the details of such agreement are elaborately articulated. The purpose of the safeguards agreement is to provide the basis for the Agency to consistently verify that a non-nuclear weapon state is complying with its obligation assumed under the NPT. The obligation of non-nuclear weapon states under the treaty is to refrain from the manufacture or acquisition of nuclear weapons. As at 2012, 140 states of the international community had signed safeguards agreements with the Agency.

A standard safeguards agreement would require a non-nuclear weapon state to give a detailed documentation of all the civil nuclear facilities it possesses. The Agency would periodically inspect those facilities to ensure that the documentation is consistently accurate and that the facilities are being used solely for peaceful purposes. In addition to that, the Agency is mandated to carry out random inspections of a state's facilities that are not declared as nuclear-related, on short notice. The rationale for this, is to enable the Agency uncover any clandestine development of nuclear weapons in secret undeclared sites.

It is with regard to the first component of enforcement, 'the component of verification' that the IAEA acts as an enforcement mechanism of nuclear weapons law. If a non-nuclear weapon state engages in a program to develop nuclear weapons or refuses to cooperate with the Agency in fulfilling its statutory duties, it would be accused of not complying with the provisions of the NPT and its safeguards agreement if it has signed one. If a state is not complying with its safeguards obligations the Agency has the authority to request that it takes corrective steps towards its actions. If the state does not

take corrective steps within a reasonable time, the agency is mandated to suspend or terminate its assistance towards the state or to withdraw any materials and equipment made available by it to the state. The Agency is also mandated to report non-compliance with the safeguards agreement to the United Nations Security Council and the General Assembly. It can be said, therefore, that the powers of the IAEA are primarily of verifying whether or not a state has exceeded its bounds in the peaceful uses of nuclear energy. Its powers of withholding its assistance to a non-compliant state can also be described as being passively punitive. The Agency also possesses ancillary powers of destroying unapproved nuclear materials or facilities found in states or of converting same to beneficial purposes.

The work of the IAEA is generally perceived to be successful in regulating the activities of states in the use of their nuclear technology for peaceful purposes only. This is basically because since its establishment in 1957 up to the 21st century, very few states have acquired nuclear weapons. Accordingly, analysts believe that the watchdog role of the Agency has served as a deterrent to proliferation. This contention is, however, unsustainable in the absence of evidence showing the aspirations of many states to acquire nuclear weapons. As a matter of fact, only 44 states of the international community own nuclear plants. If states had not desired to acquire nuclear plants for civil uses, or if they could not afford to, it seems farfetched to conclude that they have been deterred from producing nuclear weapons because of the presence of the Agency. The accurate way to assess the efficacy of the Agency would be to examine its activities towards states that *have* nuclear plants, which actually violated their safeguards obligations. The question to ask would then be; was the Agency able to detect and act towards such violating states adequately? To analyze the efficacy of the IAEA from the foregoing perspective, it is instructive to appraise the case of Iraq and the IAEA.

6.2.1 Iraq and the IAEA.

Since the NPT entered into force in 1970, the first real challenge posed by a state to the IAEA occurred with the discovery of Iraq's clandestine nuclear weapons development program. Iraq had previously signed a safeguards agreement with the Agency and declared all its nuclear facilities. At the time the Agency had not been given the powers of random inspections of a state's undeclared facilities. Iraq had diverted its nuclear technology to a secret site and commenced a nuclear weapons development program. However, the attention of the international community was on Iraq's weapons capabilities even before the IAEA stepped into the picture. This is against the background that some powerful states of the international community had armed Iraq with both financial and material aid in 1980 as it prepared to wage a war on the newly constituted Islamic Republic of Iran.

In 1980, Iraq declared war on the Islamic Republic of Iran, which lasted eight years from 1980-1988. The war was preceded by several years of border conflicts between the two states. Iraq was also motivated by regional envy to attack and defeat Iran because Iran was the most powerful regional power in the Middle East at the time. However, the attack was given political credence by powerful states of the International community, particularly the U.S.A, because they opposed the Islamic revolution of 1979 which transformed Iran into an Islamic Republic. This was a threat to states like Israel, a strong American ally. The United States of America, therefore, armed Iraq with both financial aid and chemical weapons to facilitate its victory against Iran. Saudi Arabia was also concerned about regional dominance and it feared that the success of the *Shiite* majority population of Iran would spark a revolution among its own minority *Shiite* population. It, therefore, played a significant role in financially assisting Iraq to prepare for the war.

The war against Iran, also known as the First Persian Gulf War, resulted in the deaths of thousands and left many civilian casualties. Although Iraq was repelled soon after the war started and hostilities continued between the two states for several years thereafter, it had built up its military capacities to a

very large degree. It was at that time estimated to have the fourth largest military force in the world. It was reported that Iraq had in the early 80s, right at the time that it was engaged in the Persian Gulf War, commenced the enhancement of its capabilities to develop chemical, biological and nuclear weapons.

In 1991, the United Nations Security Council constituted and mandated a special task force, the 'United Nations Special Commission on Iraq' (UNSCOM) to work with the IAEA to find and destroy all of Iraq's weapons of mass destruction. Their activities in Iraq lasted till 1998. Although Iraq was initially hesitant to cooperate with them, it eventually succumbed to pressure and divulged all information about its nuclear weapons programs. With extensive on-site inspections and massive supervision of the destruction of the weapons and weapons' facilities of the country, the joint task force of UNSCOM and IAEA reached a conclusion by 1998 that Iraq had been totally incapacitated to develop weapons of mass destruction. The IAEA had since 1998 repeatedly affirmed its certainty that all weapons of mass destruction and facilities in Iraq had been destroyed.

By and large, it can be said that the verification activities of the IAEA in Iraq have been very successful. One important lesson learnt is that the Agency's verification function is highly facilitated by prior information of a state's weapons capabilities. It would also be accurate to say that as long as the verification and safeguards system has to do with the detection of covert illegal activities by states, the IAEA could never be absolutely certain that a nuclear-capable state is not engaged in some form of clandestine nuclear activity. While Iraq's clandestine nuclear weapons program was detected in time because of circumstances that disclosed the state's military affairs, the North Korean program was not because its security secrets were concealed to the world.

6.2.2 Verification in Nuclear Weapon States

It is pertinent to inquire whether the safeguards system of the IAEA, which the NPT stipulated states to go into, is poised to ensure the non-proliferation of nuclear weapons among non-nuclear weapon states only. This is so because the NPT requires only *non-nuclear weapon states* to go into a safeguards agreement with the Agency. What this means is that the Agency would verify the activities of non-nuclear weapon states to ensure they are not diverting nuclear technology from peaceful to military purposes, if they have nuclear plants. This system is obviously poised to hinder the development of nuclear weapons by states that do not already have them. The treaty does not require nuclear weapon states to go into a safeguards agreement with the Agency. It could be asked why is it necessary for nuclear weapon states to go into a safeguards agreement with the Agency when they already possess nuclear weapons and it is no secret that their nuclear technology has always been used for dual purposes, civil and military? The answer to that is that in accordance with the intent of the NPT to eventually eliminate nuclear weapons, nuclear weapons states would be expected to stop further production of nuclear weapons as soon as the treaty became operational.

In accordance with the preamble of the treaty, therefore, it would be expected that nuclear weapons states should also go into a safeguards agreement with the IAEA. Such agreement would give the Agency authority to verify that nuclear weapon states are in fact reducing their nuclear armaments. It would also ensure that they are not producing more weapons. This, however, is not the case with the NPT. As a matter of fact, the treaty did not make a demand on nuclear weapon states to stop further production of nuclear weapons. It only prohibited them from spreading the weapons and/or technology to non-nuclear weapon states. As the treaty did not incorporate a prohibition on further production of nuclear weapons by nuclear weapon states, it is understandable why it also did not require nuclear weapon states to go into a safeguards agreement with the Agency. In essence, the IAEA is a tool to enforce compliance of the non-nuclear weapon states, to NPT obligations. As far as the NPT is

concerned, therefore, there is really no verification enforcement mechanism against nuclear weapon states.

The inference that may be drawn from the foregoing analyses is that the IAEA's system of verification as stipulated in the NPT serves as a partial enforcement of the law. A non-partial verification system would require the Agency to verify that each and every state of the international community that possesses a nuclear plant is using its nuclear technology for peaceful purposes.

When the NPT came into force in the early 70s, however, non-nuclear weapon states were hesitant to be parties to it or to sign comprehensive safeguards with the IAEA because of the obvious unequal standards it contained with regards to safeguards commitments. Several industrialized non-nuclear weapon states raised the concern that the safeguards required under the treaty would place their industries in an unfavorable situation as compared with nuclear industries in nuclear weapon states. It would place additional economic burden on their industries and increase the risk of industrial espionage. To promote the acceptance of the IAEA safeguards by as large a number of states as possible, therefore, the United States of America under the administration of President Lyndon Johnson proposed to go into a voluntary safeguards agreement with the IAEA. The United Kingdom proposed the same soon thereafter and that appeared to have worked well to achieve the objective.

Even though their nuclear weapons structures differ, the safeguards agreement of NWS and NNWS are similar in form. However, the preamble of the safeguards agreements of the nuclear weapon states with the IAEA did not conceal the motive of signing the safeguards agreement. The preambles of the agreement between the Agency with the U.S.A and the UK stated that the purpose of going into the safeguards agreement was "to promote widespread adherence to the NPT." The bilateral treaties between nuclear weapon states by which they undertake to strategically reduce their nuclear armaments also identify the IAEA as the compliance verification body.

Nuclear weapons analysts have observed that the verification exercise of the Agency in nuclear weapon states is not nearly as intensive as their verification in non-nuclear weapon states. From the time of negotiating the voluntary safeguards agreements the point was raised that a full inspection of all nuclear facilities in nuclear weapon states would be inordinately costly. Against that background, therefore, the IAEA inspection was limited to specific facilities. There was also a clause that nuclear facilities associated with activities of direct national security significance would not be subject to inspection.

6.2.3 The IAEA's Safeguards System: An Impartial Verification Mechanism?

The effectiveness of the IAEA as a verification body is directly linked to the degree of compliance it effects on states. This also has to do with the perception of the degree of its independence and impartiality. The relationship between the Agency and the United Nations Security Council, which is composed of the five-NPT recognized 'nuclear weapon states,' whereby the Agency reports non-compliance of states to the Council puts the Agency in a somewhat subordinate position. As a matter of fact, the Agency has been accused of discrimination in its different approaches to the nuclear activities of states. An example can be seen in the cases of the IAEA and South Korea versus the IAEA and Iran.

Like Iraq, South Korea had also indulged in preparations to develop a nuclear bomb in the 1980s. It was not until 2004 after it had achieved up to 77% of enrichment that its clandestine activities were revealed. In August 2004, South Korea revealed the extent of its highly sensitive nuclear research programs to the IAEA, including some experiments which were conducted without the obligatory reporting to the Agency in accordance with South Korea's Safeguards Agreement. This fact was reported by the IAEA Secretariat to the IAEA Board of Governors. However, the Agency decided not to

make a formal finding of non-compliance and the matter was not referred to the UN Security Council for further action.

In the same year, similar allegations of uranium enrichment were leveled against Iran by the IAEA Secretariat to the Agency's Board of Governors for consideration. While South Korea's case was treated only as a matter of 'serious concern' by the board, Iran's case was treated as 'a case of non-compliance' with IAEA safeguards and accordingly forwarded to the Security Council for appropriate action. This was followed by series of inspections and other measures against Iran by the Agency, as well as the application of sanctions by the United States of America. The question, therefore, would be why did the Agency treat two states with like offenses differently? Some analysts had posited that the exemption of South Korea from a formal charge of non-compliance with the IAEA safeguards was politically motivated. South Korea is an ally of the U.S.A and it is under the nuclear umbrella of the U.S.A. U.S.A is the most powerful member of the United Nations Security Council. Gareth Porter, a researcher, explained the situation thus:

The double standard of treatment of the South Korean and Iranian cases implied that the U.S had hard intelligence that Iran had exhibited an interest in nuclear weapons, whereas South Korea had not. However, the closest thing to such evidence in U.S possession was a set of documents of uncertain provenance and authenticity. On the other hand, nuclear physicists working in the Korean nuclear program who had been recruited by the CIA had reported in the mid-1970's that South Korea was carrying out a clandestine nuclear weapons program. The stark contrast between the treatment of the Iranian and South Korean cases by the IAEA Secretariat and its Board of Governors is the most dramatic evidence of a politically motivated nuclear double standard practiced by the Agency and its Governing Board, dominated by the United States.

The discrimination in the application of non-compliance standards to the two states by the Agency was so glaring that former Head of Department of Safeguards at the Agency, Pierre Goldschmidt, called on the Board of Governors to adopt generic resolutions which would apply to all states in such circumstances. He also argued that political considerations played a dominant role in the Board's decision to not make a formal finding of non-compliance against South Korea.

The foregoing example of blatant discrimination between two states, one an ally of the most powerful member of the Security Council and the other, its adversary, by the IAEA clearly indicates the lack of independence of the Agency. A compromise of this character evokes a lack of confidence in the system and raises the need for a new, more independent structure which would not be accountable to the United Nations Security Council.

6.3 The United Nations Security Council (UNSC): The Second Component of the Enforcement Mechanism of Nuclear Weapons Law

The United Nations Security Council is the most powerful organ of the United Nations Organization. It is charged with maintaining international peace and security. It is the body that has the power to make binding decisions that member governments are obliged to carry out. It is composed of 15 member states, consisting of five permanent members – the United States of America, Russia, UK, China and France. The five permanent members hold veto power over substantive but not procedural resolutions, allowing a permanent member to block adoption but not to block the debate of a resolution unacceptable to it. In accordance with Richard Butler's definition of enforcement of nuclear weapons law, the Security Council represents the second component of enforcement, the component that enforces against non-compliant or violating states.

The relationship between the UNSC and the IAEA was established by special agreement in 1959, by which the Agency is obligated to report state parties' substantial non-compliance with their safeguards agreement to the Council. The Council will thereafter take the appropriate corrective or punitive action towards the state concerned to ensure that it complies with its international obligations. The NPT does not mention the United Nations Security Council as an enforcement mechanism. The powers of the Council in that regard are derived from the mandate of the Council to maintain international peace and security and the special measures given to it to enforce international law by the United Nations Charter.

The Security Council is mandated and obliged to determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations or decide what measures shall be taken to maintain or restore international peace and security. It is mandated under Chapter VII of the UN Charter to take enforcement measures to maintain or restore international peace and security. In resolving issues of the non-compliance of states to international law bordering on international peace and security, the Council is mandated by the UN Charter to first of all call upon the violating state to comply with the law. In the event of the persistent non-compliance of states, the Council is permitted to take stronger measures and members of the United Nations Organization are legally bound to accept and carry out these measures. Those measures that do not involve the use of armed force are known as 'sanctions.'

Sanctions are punitive actions intended to pressure a country into following international law. The UN Charter enumerates specific sanctions that may be utilized by the Council as follows:

- i. Complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio and other means of communication and the severance of diplomatic relations.
- ii. Demonstrations, blockade and other operations by air, sea or land forces when the economic and/or diplomatic sanctions prove to be inadequate.

The use of mandatory sanctions is intended to apply pressure on a state or entity to comply with the objectives set by the Security Council without resorting to the use of force. Sanctions thus offer the Security Council an important instrument to enforce its decisions. Sanctions may be used to force cooperation with international law, to contain a threat to peace within a geographical boundary and to condemn actions or policy of a member/non-member nation. As specified by the UN Charter, sanctions may be diplomatic, economic or military. The Council can also put sanctions on individuals, curtailing their rights to movement between countries or freezing their assets.

The Council sets up sanction systems by adopting a resolution based on Chapter VII of the UN Charter. In such a resolution, the type of sanction and target of sanction will be determined. In order to ensure that the sanctions adopted in a particular resolution are enforced, the Council usually sets up a sanction monitoring mechanism in the form of a Security Council Sanctions Committee. The 15-member states customarily all have a seat in the committee. The sanctions committee will have the authority to control the execution of the sanctions defined in the resolution.

6.3.1 The Efficacy of the United Nations Security Council as an Enforcement Mechanism of Nuclear Weapons Law.

The UNSC has made use of the facility of sanctions in attempts to make states obey their NPT safeguards commitments with the IAEA. Violation of NPT safeguards agreement entails any one or more of the following:

- i. Producing/developing nuclear weapons.
- ii. Sharing nuclear weapons or nuclear weapons' technology with other states.
- iii. Non-cooperation with the IAEA in its verification activities.

The Security Council has passed several resolutions and imposed sanctions on states reported to it by the IAEA for non-compliance with their safeguards agreements. The states include Iraq, Libya, North Korea and Iran. Very stringent sanctions were imposed on Iraq by the Council, which lasted for twelve years, from 1991 to 2003. Iraq's invasion of its neighbor, Kuwait, in 1990 sparked off international disapproval against it. In August 1990, just two years after its war against Iran ended, Iraq invaded Kuwait. It had previously accused Kuwait of economic crimes and it also believed Kuwait was originally its colony and therefore attempted to cede it to its territory. An alliance of thirty-four states' military forces led by the U.S.A converged in Saudi Arabia, organized themselves and launched counter-attacks against Iraq. This lasted for seven months. The coalition of forces eventually liberated Kuwait from Iraq in 1991.

While the war against Iraq or the Gulf War persisted, the Security Council passed several resolutions to address the security problem in the Gulf region. The resolutions related primarily to absolute ceasefire, forfeiture of Iraq's long-range ballistic missiles as well as its nuclear, chemical and biological weapons and cooperation with the inspection of all its facilities by the designated bodies. The Council mandated the United Nations Special Commission (UNSCOM) and IAEA to destroy all of Iraq's weapons of mass destruction and long-range ballistic missiles. Economic sanctions were imposed on Iraq, involving a trade embargo on Iraq's oil, its primary means of sustenance, the ban on the importation of certain articles of trade and the freezing of its financial assets abroad. Resolution 687 stipulated that all sanctions against the country would be lifted when Iraq complied with all the conditions of disarmament.

By October of 1994 after Iraqi citizens had lived in dire economic hardships resulting from the sanctions, the joint task force of UNSCOM and the IAEA reported to the Security Council that Iraq's military machine had been destroyed in full. The document conveying the information confirmed that all weapons of mass destruction in Iraq had been destroyed, that a long-term monitoring system was

successfully in place and that Iraqi cooperation had shown great improvement. Therefore, in accordance with Resolution 687, Iraq had met all its obligations, which mandated the lifting of sanctions against it. The Security Council, however, did not lift the sanctions. What it did rather, for nine years after that initial report and several others, was to perpetuate the sanction regime by continuously adding other conditions for Iraq to meet before the sanctions were lifted. An example of the first condition after the initial report was presented manifests in the statement of the U.S.A Ambassador to the UN, Madeleine Albright, addressing the joint task force as follows:

It is not enough. You have to establish the monitoring regime and then you have to put the Iraqis on test for a certain period. Only then can the Council consider the matter of implementing paragraph 22. (Paragraph 22 was a reference to the lifting of sanctions clause in resolution 687.)

It would be seen from the first report of compliance of the joint task force and many reports thereafter that the Security Council's enforcement actions against Iraq was very successful in achieving one of the primary objectives of the NPT, to hinder the proliferation of nuclear weapons. However, in gauging the efficacy of the Council as an enforcement body it is imperative to go beyond appraising its actual success in preventing proliferation of nuclear weapons by states. It involves appraising the propriety and fairness in the execution of its measures against states. The enforcement of international law in general must conform to the basic principles upon which the United Nations Organization was built. These include the inviolable principles of respect for the sovereignty of states, priority to humanitarian concerns of states, justice and equality. However, the application of the UNSC sanctions on Iraq did not meet these pristine yardsticks embedded in the UN Charter.

(a) The Sanctions Regime on Iraq and the Principle of Sovereignty

The United Nations Charter states explicitly that the United Nations Organization is based on the principle of the sovereign equality of its members. It is to be expected, therefore, that the principal enforcement body of the Organization would execute its activities with strict adherence to this principle. In the execution of its sanctions against Iraq, the Security Council gave preference to the interests of its most prominent member, the U.S.A, against the sovereign right of the Iraqi nation and its people. This is because in accordance with resolution 687, the sanctions should have been lifted in 1994 when the joint task force on disarmament in Iraq submitted its report of absolute compliance by Iraq. This did not happen because the U.S.A had as part of its foreign policy objectives at that time the removal of the President of Iraq, Saddam Hussein, from power. This is evidenced by the Iraq Liberation Act which the U.S Congress passed in 1998 with the main objective of removing Saddam Hussein from power. By perpetuating the sanctions against Iraq and prolonging the suffering of its people, the U.S government hoped to evoke a revolution by the people which would oust their President. The Council gave priority to the foreign policy interests of the U.S.A over the right of Iraq and its people to be validly free of tough sanctions. This fact was demonstrated in the first major foreign policy address of the then U.S Secretary of State, Madeleine Albright as follows:

We do not agree with the nations who argue that if Iraq complies with its obligations concerning weapons of mass destruction, sanctions should be lifted. Our view, which is unshakeable, is that Iraq must prove its peaceful intentions. It can only do that by complying with all of the Security Council resolutions to which it is subjected. Is it possible to conceive of such a government under Saddam Hussein? When I was a Professor, I taught that you have to consider all possibilities. As Secretary of State, I have to deal in the realm of reality and probability. And the evidence is overwhelming that Saddam Hussein's intentions will never be peaceful.

It was sweeping statements like this before the United Nations Security Council that decided the fate of the people of Iraq to be subjected to the consequences of tough sanctions for twelve years. The sanctions were removed in 2003 only after the U.S Army carried out an unauthorized invasion of Iraq, which led to the removal of Saddam Hussein from power. The objective of removing the President of Iraq was, however, never part of the disarmament conditions for the lifting of sanctions by the UNSC. Hence, by perpetuating the sanctions against Iraq in contravention of its own guiding resolution, and in the foreign policy interest of the United States of America, the United Nations Security Council undermined the sovereignty of Iraq and allowed its enforcement role to be politically compromised.

(b) Sanctions on Iraq and the Humanitarian Principle

The UN Charter states that one of the purposes of the Organization is to achieve international cooperation in solving international problems of an economic, social, cultural or humanitarian character and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion. The preamble of the Charter also reaffirms state parties' faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small.

The degradation of the people of Iraq that resulted from the sanctions imposed on the nation by the Security Council did not reflect the principles of justice, fairness and humanitarian consideration that the foregoing principles represent. The Security Council sanctions aimed at the heart of Iraq's economy. By prohibiting the exportation of the country's oil, the mainstay of its economy was retarded. Many necessary items for the livelihood of the people were also banned from being imported into the country. The trade embargo caused shortage in items needed for agriculture.

The country as from 1991 to 2003 was economically paralyzed and depleted. Inability to import foodstuff and medical supplies at the volume required by its 18 million people led to deaths from malnutrition and other diseases. The Sanctions Committee also banned the importation of chlorine, a chemical necessary for water purification. It also banned the importation of spare parts to repair purification plants damaged during the coalitions' bombing attacks to free Kuwait from Iraq. Consequently, the water in Iraq was unsuitable for drinking. This caused many incidences of diarrhea, which led to several deaths. On 26 November, 1997, UNICEF reported the results of its study on the effects of the sanctions on the people of Iraq as follows "The most alarming results are those on malnutrition with 32% of children under the age of five, some 960,000 children chronically malnourished – a rise of 72% since 1991. Almost one quarter (around 23%) are underweight – twice as high as the levels found in neighboring Jordan or Turkey." On April 30, 1998, UNICEF gave another report of its study as follows:

The increase in mortality reported in public hospitals for children under five years of age (an excess of some 40,000 deaths yearly compared with 1989) is mainly due to diarrhea, pneumonia and malnutrition. In those over five years of age, the increase (an excess of some 50,000 deaths yearly compared with 1989) is associated with heart disease, hypertension, diabetes, cancer, liver or kidney diseases.

The then Assistant Secretary General of the UN, obviously disturbed by the situation in Iraq and taking a dissent to the sanctions which inflicted untold hardship on the people stated in a speech on October 6, 1998:

There are many reasons for these tragic and unnecessary deaths, including the poor health of mothers, the breakdown of health services, the poor nutritional intake of both adults and young children and the high incidence of water-borne diseases as a result

of the collapse of Iraq's water and sanitation system – and of course, the lack of electric power to drive that system, both crippled by war damage following the 1991 Gulf War.

Despite the suffering of the people and multiple deaths from malnourishment and poor sanitation conditions, the sanctions were not lifted. The U.S.A persevered in its mission to overthrow Saddam Hussein at the expense of the depletion of the Iraqi people. The sanctions, therefore, failed to meet basic humanitarian standards.

(c) Do Sanctions work all the time?

Although the sanctions regime of the Security Council in Iraq resulted in a humanitarian disaster on the people, reports of the IAEA and UNSCOM leave no doubt that Iraq had been rid of its nuclear weapons. It has been argued that there are essentially three basic theoretical requirements which make a country an ideal candidate for economic sanctions. The requirements as laid out by Gary Hufbauer and Jeffery Schott are:

- i. Economic vulnerability
- ii. Limited capacity to circumvent sanctions and retaliate economically
- iii. Political isolation

The state of Iraq at the time of the sanctions regime was indeed an ideal candidate for economic sanctions in accordance with these requirements. The economy of Iraq rested substantially on its exportation of oil. About 99% of its exports was in oil and the rest consisted mainly of dates, gas and chemical fertilizers. On the import side, Iraq was heavily dependent upon foreign products. Prior to 1990, Iraq imported food and medical products worth \$3-4 billion a year. By putting a trade embargo,

blocking both exportation and importation of items substantially, it was very easy for the UN to completely cripple Iraq's economy.

As to the second factor, because of the competition in the global market, the absence of Iraqi oil did not destabilize the global economy. With Iraq out of the global oil scene, other oil producers, for example, Saudi Arabia easily filled in the gap. Consequently, Iraq could not have held the global economy hostage and retaliate economically since there were alternative suppliers in the global market.

Thirdly, Iraq did not form significant alliances with other states of the international community prior to the sanctions regime. On the contrary, it created adversaries when it invaded Kuwait, evoking a coalition of forces to gang up against it. Furthermore, the sanctions were comprehensive, simultaneously involving the joint task force operations on disarmament in the state. All these factors facilitated the successful enforcement of disarmament of nuclear weapons and other weapons of mass destruction in the state. It thus brings to question if sanctions would be as effective in a state that does not fulfill all or some of the three requirements of economic-sanctions suitability. A case in point is Iran.

The United Nations Security Council has since 2006 imposed a series of sanctions against Iran as part of international efforts to address "Iran's nuclear program." The central demand by the Council is that Iran suspends its uranium enrichment. The original sanctions were of a mild character but progressively became more stringent as the years passed by. The first Security Council resolution of July 31, 2006, called on states to exercise vigilance and prevent the transfer of any items, materials, goods and technology that could contribute to Iran's enrichment-related and reprocessing activities and ballistic missiles program. It called on Tehran to suspend its enrichment program and verify compliance with the IAEA Board of Governor's requirements.

By December of the same year when the IAEA was convinced that Iran had not stopped the enrichment program, it passed another resolution requiring all states to prevent the supply, sale or

transfer of designated nuclear and ballistic missile-related goods to Iran. The sanctions also blacklisted some individuals whom states were prohibited from having transactions with. Those individuals were allegedly aiding Iran's uranium enrichment program. As the years passed and Iran maintained its position that its nuclear activities were purely for peaceful purposes, the Security Council continued to issue resolutions, tightening its sanctions by increasing the number of prohibited import and export items and also expanding the list of blacklisted individuals. The Council prevented the individuals from entering other states of the international community and also froze all their assets and funds abroad. By June 2010, the Council imposed a full arms embargo on Iran, banning the sale of battle tanks, armoured combative vehicles and other things. Three companies related to Iran's shipping lines were subject to an asset freeze. UNSC sanctions of 2011 and 2012 strengthened earlier sanctions on Iran.

While the Security Council was imposing sanctions on Iran, other entities were doing the same. As a matter of fact, the U.S.A had imposed sanctions on Iran since 1979 following the Islamic revolution. However, recent rounds of sanctions by the U.S.A were motivated by Iran's alleged nuclear weapons program. U.S.A had imposed an arms ban and an almost total economic embargo, which included sanctions on companies doing business with Iran, a ban on all Iranian-origin imports, sanctions on Iranian financial institutions and an almost total ban on selling aircraft or repair parts to Iranian aviation companies. In February 2012, the U.S.A government froze all property of the Central Bank of Iran and other financial institutions, as well as that of the Iranian government within USA. Sanctions were further imposed in December, 2012, targeting a handful of companies the U.S says were providing materials and technology to Tehran's nuclear program. The most recent sanctions of the U.S.A against Iran were imposed on February 20, 2013. In addition to all these sanctions, the European Union (EU) and other countries have also imposed sanctions on Iran. The EU imposed an oil embargo on Iran and a freeze of the assets of Iran's Central Bank.

It has been three decades of imposition of sanctions against Iran, including earlier sanctions imposed by the U.S.A. Although Iran has consistently defended its peaceful uses of nuclear technology, yet the IAEA has consistently reported progress on Iran's uranium enrichment progress. On 17th November, 2012, the IAEA reported that Iran had completed enrichment of its underground nuclear facility. If the information of the Agency is accurate and Iran is in the final stages of producing its own nuclear weapons, then obviously the combined sanctions of the Security Council, the European Union and other states of the international community would have woefully failed in halting the proliferation of nuclear weapons in this case.

It appears that Iran has been able to survive through the hardship caused by the various sanctions imposed upon it. Undoubtedly, the sanctions have had very adverse effects on its people. It was reported in October 2012, that Iran's oil exports have dropped by about one million barrels a day in the past twelve months, which is a 60% drop in revenue. Inflation is running somewhere between 20% and 25% and it is hitting Iran's currency hard. One very important sector that has been hit badly by the sanctions is the health sector. Iran's top medical charity has informed about the lack of medicine for a number of diseases such as hemophilia, multiple sclerosis and cancer. Those with thalassaemia or in need of dialysis are facing difficulties because of sanctions against banks or problems with transferring foreign currency. The effects of the multiple sanctions are so severe that the Secretary General of the United Nations Organization warned the UN in a report in October 2012 as follows:

The sanctions imposed on the Islamic Republic of Iran have had significant effects on the general population, including an escalation in inflation, a rise in commodities and energy costs, an increase in the rate of unemployment and a shortage of necessary items, including medicines...the sanctions also appear to be affecting humanitarian operations in the country. Even companies that have obtained the requisite licence to import food and

medicine are facing difficulties in finding third-country banks to process the transactions.

Notwithstanding all the hardships caused by the sanctions, however, Iran has resisted intrusive inspections by the IAEA. Attempts to inspect the country's alleged nuclear site at Parchin has been strongly resisted by the Iranian government, which led to the imposition of more severe sanctions on the country in 2012. The country has however remained resilient. The fact that Iran has proven not to be a suitable candidate for sanctions is evident in the fact that in 2011 and 2012 there were many internal conflicts in the Middle East in the form of revolutions by citizens of countries who felt aggrieved by the flaws of their respective governments. These revolutions have been popularly and collectively called the 'Arab Spring.' These uprisings were carried out in countries whose situation was not as bad as Iran, yet the citizens of Iran have not revolted against their country. This resilience prompted the CEO of Strategic Energy and Global Analysis in USA, Hillary Mann Leverett to express thus:

The second round of sanctions is intended to increase hardship for ordinary Iranians. That's the intent of sanctions...it's to impose extreme hardship on ordinary people with the idea that they will then rise up and overthrow their government and get rid of a system that Washington doesn't like. They will increase hardship for ordinary Iranians, they will increase transaction cost, they will make doing business harder, but the reality is what we have seen come back from Iran, the response from the Islamic Republic of Iran has been, yes, hardship for the people, but an increased ability to rely on indigenous capacity. When we first started imposing sanctions on Iran after the revolution of 1979, Iran was barely able to produce a bullet for its military.

With three decades of sanctions, Iran has been able to survive in the international community albeit with its population bearing a lot of hardship. Its resilience manifests in its ability to be resourceful within its borders and to also have alliances with other countries. Having been cut off the international financial system, it has found other channels to explore survivability. Turkey is Iran's ally and they enjoy a

mutually beneficial trade relationship. Iran supplies natural gas to Turkey and the latter pays Iran in Turkish currency, *Lira*. Turkey's Prime Minister has stated that the *Lira* Iran received from Turkey for its gas was being converted into gold because sanctions meant that it could not transfer cash to Iran.

6.4 Enforcement of Disarmament in Nuclear Weapon States

The NPT did not create an obligation on nuclear weapon states to disarm their nuclear weapons. It merely created an obligation on "all states" to negotiate disarmament and to negotiate a treaty on disarmament under strict and effective international control. If the most significant treaty in the framework of nuclear weapons law did not create a binding obligation on nuclear armed states to disarm, therefore, would the issue of enforcement against non-compliance with disarmament occur? An appropriate answer to this question would consider the following:

- i. Disarmament is fundamental to the elimination of nuclear weapons, which would bring greater security to the world.
- ii. The duty to ensure that nuclear armed states disarm their nuclear weapons can be imputed to the United Nations Security Council by inference because it is the body mandated with maintaining international peace and security.
- iii. Nuclear weapon state parties to the NPT have also entered into bilateral agreements with each other to reduce their nuclear armaments.
- iv. Nuclear weapon state parties to the NPT have made several commitments to disarmament in NPT Review Conferences.

With the foregoing in view, it can be seen that the concept of disarmament in relation to nuclear weapon states does not depict a mandatory notion, to compel states to carry out a certain action to produce a definite result. As far as the NPT is concerned, *all states* not only nuclear weapon states are obliged to

negotiate disarmament. One would appropriately refer to enforcement against non-compliance with the obligation to “negotiate,” such obligation being of all the states of the international community. As far as the bilateral agreements are concerned, they do not refer to a total elimination of nuclear weapons but connote a reduction of the arms race between the nuclear powers. Be that as it may, disarmament remains a fundamental aspect of elimination without which the objective of nuclear weapons law can never be achieved.

In view of the foregoing, it can be asserted that a huge lacuna exists in the legal framework for the elimination of nuclear weapons. The lacuna is created by the absence of a mandatory law stipulating disarmament, which also creates an effective enforcement mechanism to ensure the compliance of states. It will, therefore, be instructive to analyze how the absence of a platform to effectively enforce disarmament affects the disarmament culture of the five NPT- recognized nuclear weapon states.

A country survey on nuclear disarmament carried out by the International Panel on Fissile Materials (IPFM) which was concluded in 2010, gives insight into disarmament experiences of the nuclear weapon states. As a preliminary observation, the report uncovered that while the United States of America and Russia are reducing the size of their deployed arsenals, the general view among the other nuclear-armed states is that the two “nuclear superpowers” must reduce the numbers of their nuclear warheads from thousands to hundreds each before the other nuclear armed states will consider seriously taking significant steps toward nuclear disarmament. This general perspective finds significance in the realization that elimination of nuclear weapons is dictated largely by the attitude of the biggest nuclear superpowers, U.S.A and Russia, towards nuclear disarmament.

The country studies also revealed that most nuclear weapon states consider the achievement of nuclear disarmament to lie far beyond any planning horizon and are, therefore, investing in significant modernization of their nuclear-weapon complexes and delivery systems. In other words, nuclear weapon

states have not embarked on any plan whether short or long-term to fulfill the NPT obligation to achieve eventual disarmament of nuclear weapons. Rather, they are making their extant weapons more sophisticated. The attitude of the other nuclear armed states towards compliance with their disarmament obligation apparently and expectedly derives from the nuclear stance of the two superpowers especially the United States of America.

While the **United States of America** consistently expresses commitment to eventual nuclear disarmament, its nuclear posture presents a contrary picture. The report of the United States Nuclear Posture Review released in April 2010 established a goal of nuclear disarmament but also commitments to retain the U.S triad of nuclear-weapon delivery systems, life extensions for more than one thousand nuclear warheads, and the modernization of the U.S nuclear-weapon production complex. It was also reported by the Washington Post and several other papers on 17th September, 2012, that the US government plans to undertake the costliest modernization of its nuclear arsenal in history. Although no official estimate has been made yet, the rough estimate for upgrading and maintaining the 5,113 warheads in the inventory, replace old delivery systems and renovate the aging nuclear facilities is at \$352 billion over a ten-year period.

Russia, the other superpower has expressed its concern about giving up its nuclear weapons and nuclear weapons subsequently being produced by other states. In other words, there is no guarantee that if the nuclear weapon states submit to disarmament, the non-nuclear weapon states would not still go ahead and make their own weapons, thereby rendering the disarmed nuclear weapon states defenceless. The Russian Nuclear Policy is hinged on working towards increasing the guarantee of nonproliferation first, before big steps are taken towards disarmament, including the need to have all other states that have refused to join the NPT on board.

On February 5, 2010, Russia's President approved a new military doctrine for Russia: Russia reserves the right to use nuclear weapons in response to the use of nuclear and other types of weapons of mass destruction against it and (or) its allies, and also in the event of aggression against the Russian Federation involving the use of continental weapons when the very existence of the state is under threat. In essence, Russia does not only proclaim the right to use nuclear weapons in the event of a nuclear attack but even in the event of an attack with the use of conventional weapons. More importantly, Russia's approach to nuclear disarmament is seemingly laid-back; resting on the assumption that it is viable to thoroughly control the proliferation of nuclear weapons as a pre-requisite to disarmament. Russia is also reportedly extensively modernizing its older delivery systems. Apparently the maintenance of nuclear weapons is very much a part of Russia's defense policy.

The nuclear stance of U.S.A and Russia is clearly problematic for the goal of disarmament because the other nuclear-armed states look to the superpowers to take a lead in disarmament. **France**, for example, is pursuing the modernization of its nuclear forces. Between 1990 and 2008, France completed a 50-percent reduction of its nuclear forces to less than 300 warheads. In the field of nuclear reduction, all French initiatives have been taken on a unilateral and voluntary basis even though France has consistently refused to endorse abolition rhetoric.

France's nuclear doctrine is hinged on hindering the further proliferation of nuclear weapons by nuclear weapon states particularly Iran, a further reduction of its own nuclear warheads, and the continued possession of a moderate number of warheads in its military arsenal. Hence France's nuclear policy is hinged on nuclear restraint and not complete abolition. It is also reportedly modernizing its nuclear stockpile.

Of all the NPT-recognized nuclear weapon states, **China** has the mildest nuclear weapons policy. China's nuclear posture is self-defense against potential nuclear blackmail by other nuclear weapon

states. It has been maintaining a nuclear strategy of self-defense with a no first-use doctrine and the pursuit of a survivable minimum deterrent. Until complete nuclear disarmament is achieved, China is poised to maintain a very limited but reliable retaliatory force.

6.5 Jurisprudential and Other Problems with the Enforcement of Nuclear Weapons Law.

One of the significant impediments to the enforcement of nuclear weapons law derives from the character of international law. While it has regulated international intercourse for centuries, in myriad ramifications, international law nonetheless has its shortcomings. One of such shortcomings pertains to the binding force of the law. Many have questioned the nature of international law; whether it is law proper because of its ability or lack thereof, to properly perform the function of law in society. Being based largely on the agreements between states, it is often intertwined with international politics.

The question of why states comply with international law has been a topical subject of debate among scholars and analysts of international law. This is obviously so because international law does not have the enforcement ability of municipal law. If states comply with international law then they do so for some reason(s) other than compulsion by a superior authority. Many analysts have opined that states comply with international law in their own economic or other interests because it is by the mechanism of the law that trade and international intercourse are facilitated and protected. The institutionalist theory of international law, for instance, views the issue of compliance from the perspective of the mutual benefits of states. It asserts that there are instances in which cooperation between states is not only beneficial, but self-enforcing by virtue of the mutual gains realized by the cooperating parties. Thus, states will often cooperate with each other because the costs of doing otherwise are simply too great. However generally this theory may apply to compliance with international law, it would appear even much so to the aspect of international law where benefits are

mutually derivable between states like the international law of trade as opposed to the aspects of international law which border on war and peace and particularly, the international law of nuclear weapons.

Some analysts have opined that states comply with international law because of the weight attached to their commitment when they agreed to be bound by treaty through ratification, as well as for the respect they have for the law, termed “law habit.” It has been argued, also, that states rationally assess the costs and benefits of various policy options and act to maximize their utility in selecting an option. However, in making these calculations, democratic states assess the preferences of their populations, which are fundamentally shaped and affected by liberal, democratic norms. These norms, combined with the democratic characteristics of domestic institutions combine to create “democratic compliance.” Whatever the reasons may be why any individual state would obey international law, the fact remains that ability of enforcement relies largely on ‘compliance’ by states and not compulsion.

It is also obvious that states ultimately consider their national interests in their decision whether or not to comply with international law. Weaker states even are compelled by the dictates of their national interest to survive in the international community, not only to comply with the treaties they had ratified, but to even be a party to and ratify such treaty in the first place. It can be said that while states may go into international agreements hinged on rational, long-term projections of international benefits, failure to comply with the obligations of those agreements or treaties may result from the consideration of short-term or immediate vital interests of the state. An example may be given with U.S.A and the CTBT. When the U.S.A led other states of the international community in the bid to indefinitely extend the duration of the NPT, it did that on the premise of adopting the CTBT. However, when the issue of the pre-requisite step of ratifying the treaty arose, the U.S Congress prioritized the vital interest of its nation

in developing new nuclear arsenals in the short-term. Ultimately, compliance by states with international law is inextricably linked with the considerations of domestic policies as well as international politics.

6.5.1 The Consensual Character of International Law: an Impediment to Enforcement

The most common and direct source of international law, treaty, is based on the agreement between states. States transact a vast amount of work by using the device of the treaty. There is no singular world legislature which competently drafts law in the best interest of all the nations of the world and makes it equally binding on all. International law does not have the machinery or authority to compel a state to sign and ratify a treaty. Not only is this a practical premise but it owes also, to the concept of state sovereignty under the law. The law recognizes as a fundamental principle that all independent states are sovereign and it frowns on the interference by any state or organization, in the internal affairs of a sovereign state.

A sovereign state is assumed to possess the capability to make its own decisions and accordingly, with the consent of its decision-makers, independently enter bilateral and multilateral agreements with other states. The right of entering into international engagements is an attribute of State sovereignty. When a state deems that a particular multilateral treaty or some components thereof do not support or enhance its national interests, it may validly refrain from being a party to, or ratifying that treaty. This is irrespective of whether or not the treaty seeks to benefit the world at large and has a large subscription.

This element of state consent and agreement under international treaty law projects the blunt fact that some states that own nuclear weapons cannot be compelled by law to be under the ambit of disarmament obligations. Real examples abound with nuclear-weapon states like India and Pakistan who are not parties to the NPT and CTBT. While the states that ratified these treaties can be accused of violating its terms when they perform acts contrary to it, those that have not cannot be regarded as

violators when they perform the same acts because as a general rule, a treaty binds only those who choose to be bound by it, “consent.”

Another example is the retardation of the Comprehensive Test Ban Treaty. Being an excellent mechanism to hinder the production of nuclear weapons by new states and also the further production or sophistication of nuclear weapons by nuclear weapon states, it has been prevented from coming into force by eight of the states that own nuclear plants and even some nuclear weapons states, like the U.S.A, thereby not fulfilling a pre-requisite condition for its entering into force. And there is no way whatsoever under international law to legally bind *them* to become parties to the treaty.

There is, however, an exception to the international law concept that a state cannot be compelled to obey the laws of a treaty it is not a party to. This exception is in respect of a treaty provision that has also become international customary law. Also, in the recent past some eminent opinions have supported the view that certain overriding principles of international law exist, forming a body of *jus cogens*. *Jus cogens* are peremptory norms of international law. A Peremptory norm of international law is a norm accepted and recognized by the international community of states as a whole as a norm from which no derogation is permitted, and which can be modified only by a subsequent norm of general international law having the same character. As a result, they are generally interpreted as restricting the freedom of states to contract while ‘voiding’ treaties whose object conflicts with norms which have been identified as peremptory. It therefore follows that notwithstanding the requirement of consent to be bound by international obligation, a state cannot escape responsibility in respect of a peremptory norm of international law just because it did not sign a treaty representative of it. Examples of peremptory norms have been cited as follows:

- i. Prohibition of the use of force,
- ii. The law of genocide,

- iii. Crimes against humanity,
- iv. The principle of racial non-discrimination.

In respect of the present discourse, however, it could be said that the principle against the non-possession of nuclear weapons has neither attained the status of customary international law nor does it fall within the class of peremptory norms of which states cannot derogate. It is the ‘use’ of such weapons that has attained that status.

6.5.2 The Weakness of the Components of the International Law Enforcement System

The United Nations Organization represents the world administrative body by which the international legislative, judicial and executive functions are performed by its various organs and agencies. The highest decision-making body of the UN is the Security Council and therefore mimics the role of the municipal executive. However, unlike a democratically elected executive, the five permanent members of the Security Council with veto power are never elected. Since the establishment of the UN by those five, they had assumed that position and like its name suggests, it is permanent.

(a) The United Nations Security Council

The Security Council represents both the executive arm and enforcement mechanism of the World Assembly. Its most powerful authority derives from Article 27 of the UN Charter which states that “Decisions of the Security Council on all matters shall be made by an affirmative vote of seven members, including the concurring votes of the permanent members, provided that, in decisions under Chapter VI, and under paragraph 52, a party to a dispute shall abstain from voting.”

By simply refusing to vote, therefore, a permanent member of the Security Council effectively vetoes any resolution passed by the Council. By having a monopoly of role in the international law

enforcement system, the Security Council plays the most significant role in the system. This monopoly of power is not divorced from the council's historical bearings. The most powerful nations at the decline of the Second World War naturally assumed a universal executive stance to establish a world assembly for the assurance of world peace and security through the United Nations Organization. Not surprisingly too, they not only instituted themselves as the permanent executive members of the organization with enforcement powers, but bestowed on themselves the power to award punishment by sanction. The United Nations Charter, thereby reflecting the realities of the time of its inception contains no provisions whereby members of the UN General Assembly may have meaningful checks on the powers of their most powerful members. Similarly, the Charter does not answer the question how the permanent members of the Council may be brought to compliance with their obligations under international law by simply being silent on it or not envisaging it at all. It then appears that the UN Charter was established with the underlying assumption of Security Council supremacy.

It follows, therefore, that the extent to which the Council may be conceived in practice as representing the interests of a few or is self-motivated and incorrigible has significant implications for its efficacy as a component of the international law enforcement system. This is because states' compliance to international law is generally consensual, hence a law enforcement body that is perceived as representing self-interests may on the reverse, evoke the rebellion, rather than the reverence of its members. An active violation of international law by a member or members of the Security Council and the failure of the Council to adequately deal with its offending member(s) in any way acceptable to the international community of states as was witnessed in the U.S-led unauthorized invasion of Iraq, inextricably reveals the unequal balance of power in the international system.

In 2003, the United States of America invaded Iraq on the basis that Iraq was covertly harboring weapons of mass destruction although the IAEA had submitted several reports to the United Nations

Organization to attest that Iraq had been completely disarmed. It was apparent that the U.S.A was pursuing its foreign policy goals and the move to enter Iraq was not authorized by the other members of the Security Council. The world applauded the Council for its principled decision not to authorize the invasion. However, the U.S.A and its ally, U.K went ahead and carried out a military invasion of Iraq and in the process, many civilian lives were lost and Iraq's infrastructure destroyed. After a thorough combing of the country, it was announced, just as it was declared severally by the IAEA, that there were no weapons of mass destruction in Iraq. The Security Council has since then not carried out any punitive measures against U.S.A and the U.K for the unauthorized invasion. As a matter of fact, even though it did not authorize the invasion, months thereafter, the Council mandated the coalition of forces that invaded Iraq as a Multinational Force (MNF)

In essence, the competence of the Security Council as the principal enforcement body of the law has been brought to question by these circumstances. Very importantly, these two violators are two of the five permanent members of the Council. U.S.A, in fact, is the most powerful member. That the Council will take punitive measures against any one of its permanent members is obviously very unlikely and this has been exemplified in the unauthorized invasion of Iraq case. It is easy and realistic to forecast that the Council can and will place sanctions on any other member of the General Assembly that is violating international law. As a matter of fact, this has already been done against Iran, a state that has been accused of enhancing its nuclear capabilities despite its consistent claim that its nuclear activities are purely civil.

However, it is too simplistic to assume that enforcement of nuclear weapons law pertains only to the direct violation of the NPT. Where an offending state like Iraq upon being caught, complies with the instructions of the designated enforcement body, then it would be right to assume it has the protection of that body against any other member of the international community pertaining to that matter. If the

Council cannot provide that protection, and any of its powerful members can unilaterally enforce its rules against that state, that certainly creates an imbalance in the international system of enforcement, particularly if that member *cannot* be punished because it is one of the principal decision makers in awarding sanctions.

The fact that the decisions or wishes of a large population of member states of the UN General Assembly can be vetoed by just one permanent member of the Security Council, also a nuclear weapon state, reveals the very undemocratic nature of the United Nations system and it brings into question how such a system can effectively punish violators of the law. To illustrate its undemocratic nature, Kirgis, an analyst stated:

The Security Council's enforcement powers are troublesome to many UN member states because the Council is not regarded as an adequately representative body. Its five permanent, unelected members – China, France, Russia, the United Kingdom and the United States – can veto any substantive measure. One of them – the United States – has dominated the Council in recent years. To the extent that law enforcement finds its legitimacy in democratic institutions, the Security Council is vulnerable to criticism. This, of course, is not so much a question of the effectiveness of international sanctions as it is a question of the legitimacy of the institutions that administer them. Yet the two questions are interrelated.

In the realm of enforcement of nuclear weapons law, it will obviously be an impossible challenge for the virtually powerless General Assembly to bring the five permanent members of the Security Council, also the five nuclear-weapon states, to completely adhere to their nuclear disarmament obligations under the current arrangement.

(b) The International Court of Justice (ICJ)

The ICJ is the principal judicial organ of the United Nations Organization. It is the judicial component of the international law enforcement system. Only states can be parties before the court and the court has jurisdiction over legal disputes concerning the interpretation of a treaty, any question of international law, the existence of any fact which, if established, would constitute a breach of an international obligation, and the nature or extent of the reparation to be made for the breach of an international obligation.

While the court has jurisdiction in respect of the foregoing, it does not have the authority, like a municipal court, to assume jurisdiction over a state. Jurisdiction of the court only becomes operational where state parties opt to come under it by recognizing its compulsory jurisdiction. Also, unlike a municipal court, the decision of the court has no binding force except between the parties and in respect of that particular case. The court also has power to give an advisory opinion on any legal question at the request of anybody authorized by the UN Charter.

Regarding the question of the court's performance as an effective international law enforcement component, it would be instructive to analyze the court's relationship with the UN Security Council. It would be important to inquire, considering the enormous powers of the Council, whether the court is in any way subservient to its authority.

Importantly, Article 60 of the ICJ Statute provides that the judgment of the court is final and without appeal. Be that as it may, the UN Charter in Article 94(2) provides that if any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the court, the other party may have recourse to the Security Council, which may, "if it deems necessary," make recommendations or decide upon measures to be taken to give effect to the judgment.

Although on the face of it the provision seems to be safeguarding the competence of the court with the authority of the Security Council, a critical analysis will lead to the inference that enforcement of the

decision of the Court is put under the overriding discretion of the all-powerful Security Council with the simple phrase “*if it deems necessary.*” In other words, the Council may use its discretion to aid a complaining state party or it may not. This arbitrary power assumes even more significance if one of the state parties to the judgment in question is a permanent member of the Security Council. Furthermore, the “recommendations” or “measures” to be taken to give effect to the judgment is not put within the powers of the competent judges of the World Court, but in the hands of the Security Council. As aptly observed by a legal analyst “*The drafters of the UN Charter, in preserving the discretion of the Security Council in this matter, have rendered the Court totally dependent on the logic of political negotiation between members of the Council with regard to the enforcement of its judgments that are not spontaneously complied with.*”

Although after almost fifty years of functioning of the United Nations Organization, the instances in which action by the Security Council has been invoked under Article 94(2) are still rare. This, however, does not detract from the fact that the discretion does exist and may become significantly relevant in any case in future. As a matter of fact, the potential conflict between the authority of the Court and the discretionary powers of the Council over the enforcement of the Court’s decisions manifested as far back as 1986 in the case of the *Military and Paramilitary Activities in and against Nicaragua* between the United States of America and Nicaragua as follows:

With a letter dated 17 October 1986 the permanent Representative of Nicaragua to the United Nations requested an emergency meeting of the Security Council “in accordance with the provisions of Article 94 of the Charter, to consider the non-compliance with the judgment of the International Court of Justice dated 27 June 1986.” Pursuant to that request a meeting of the Council was held a few days later during which a draft resolution was introduced that “urgently called for full and immediate compliance with the judgment of the International Court of Justice of 27 June 1986.” Put to the vote, the draft resolution in point was not considered as

adopted by the President of the court owing to the negative vote of a permanent member i.e., the United States.”

The foregoing illustrates the very significant fact that should the ICJ ever pass a judgment within its jurisdiction against any permanent member of the Security Council, in favor of a common member of the General Assembly for instance, the Security Council may invariably be prevented from compelling the permanent member to abide by the terms of the judgment as such member may simply abstain from voting on such resolution of the Council, effectively vetoing that resolution.

6.5.3 The States that Refuse to be Party to the Nuclear Weapon Treaties

One of the most challenging obstacles to disarmament is the issue of nuclear armed states that have refused to be parties to the international nuclear weapons treaties. The four states, India, Pakistan, Israel and North Korea, under international law principles of consent and state sovereignty cannot be forced to disarm even if other nuclear weapon states disarm. This is a significant stumbling block to disarmament because the NPT-recognized nuclear weapon states would obviously decline to take significant steps towards disarmament because if they do, the other non-NPT nuclear states would automatically have an edge over them and even threaten to become the new world superpowers.

6.5.4 The Intertwining of International Law with International Politics

The issue of the enforcement of international law in general and international nuclear weapons law particularly may not be adequately appreciated without considering the interplay of the enforcement system with other forces within the international system. The international system is made up of a few powerful states, their allies, weaker or developing states and states that are labeled “rogue” or “terrorist

states.” The pivotal law enforcement mechanism in the international system, the Security Council is made up of the most powerful states in the world.

Foregoing discussions have revealed that powerful states have manifested non-compliance with international rules they deemed adverse to their national interests. The interplay between power and compliance manifests in the pattern of the imposition of sanctions by the more powerful states on weaker states, the shielding by powerful states of their allies and the flouting of international law by more powerful states as well as the failure of the international system to bring leaders of those states to justice even under the international criminal justice system. It has been argued that with international law, “considerations of power rather than of law determine compliance in every significant area.”

Examples abound of cases where international law was violated with impunity by more powerful states and where less-powerful states of the international community were punished the international way for violating international law. The fact that politically stronger nations do flout international law with impunity, in the interest or pursuit of their own domestic interests, is historically evident. Also, the fact that the United Nations Organization is an inefficient body to enforce the law has been overtly declared by representative of its most powerful member. Prior to the U.S-led invasion of Iraq, the then Chairman of the U.S Senate Foreign Relations Committee in 2000, Jesse Helms, told the UN Security Council during a visit, *“Most Americans do not regard the United Nations as an end in itself – they see it as just one part of America’s diplomatic arsenal. To the extent that it becomes ineffective – or worse, a burden – the American people will cast it aside.”*

6.5.5 The Conflict between Disarmament and Proliferation.

At the very heart of the problems bedeviling the successful elimination of nuclear weapons lies the conflict caused by the refusal of the nuclear weapon states to get rid of their nuclear weapons and the potential proliferation of nuclear weapons by non-nuclear weapon states. The conflict is well illustrated thus:

- i. If nuclear weapon states were to consider the prospect of complete disarmament, they would be rendering themselves vulnerable as nuclear hostages to non-nuclear weapon states that had secretly developed nuclear weapons. This is in view of the difficulty in distinguishing between nuclear technology for peaceful applications and those for military purposes, coupled with the fact that there is presently no full-proof mechanism to determine absolutely that a state is not secretly harboring nuclear weapons. If the nuclear weapon states would embark on complete disarmament in accordance with the official intent of the NPT, it would mean that they no longer possess nuclear superiority over the whole world whilst rendering themselves subject to the nuclear dominance of a secret nuclear weapon state. A more blatant consequence is that they would subject themselves to nuclear dominance by the four nuclear weapon states that are not parties to disarmament treaties; Pakistan, India, Israel and North Korea.
- ii. There is an imbalance in the framework for nuclear weapons elimination and non-proliferation whereby there is an international norm against the acquisition of nuclear weapons while there is no such norm against the possession by the recognized nuclear weapon states.
- iii. There is also an obvious tension between what should take priority, the development of a thorough and comprehensive mechanism that ensures total inability of nuclear proliferation by non-nuclear weapon states or complete disarmament by nuclear weapon states.

The foregoing illustrate the difficulties involved in nuclear weapons' elimination. Although a legal framework exists for that purpose, the circumstantial facts surrounding elimination demonstrate that it is not a clean – cut, straightforward issue and one that is surrounded by many circles of conflict. The successful elimination of nuclear weapons would invariably depend on the extent to which these issues can be harmoniously resolved. Accordingly, any recommendation as to the successful enforcement of nuclear weapons law, which would translate into the successful elimination of nuclear weapons, would have to take these questions into consideration.

6.6 Profiling Potential Enforcement Facilitators

In a nuclear world where nuclear powers possess global hegemony and hold enforcement of nuclear weapons laws to ransom, it is instructive to acknowledge the existence of states, entities and individuals that are not only ready and willing for a revolutionary change of nuclear status quo, but invested in the struggle to realize a world that is free of such destructive weapons. There is, in fact, a great number of the world populace, particularly in developed countries that own nuclear plants and nuclear weapons, who are invested in this struggle. This is clearly evidenced by the activities of several non-governmental organizations, most of which have been established solely for the purpose of seeking the abolition of nuclear weapons. It is also evidenced by the policies of certain states with an anti-nuclear posture, as well as in the writings and publications of individual nuclear weapons' activists. It is this group of states, entities and individuals that are potentially the facilitators of enforcement of nuclear weapons law.

6.6.1 Germany

Germany owns a nuclear plant and has been benefiting from nuclear energy. It is, however, one of the countries of the international community that has developed an anti-nuclear policy. As far back as 2000,

Germany announced its decision to phase out nuclear power. It reached an agreement with energy companies for the gradual closing down of the country's 19 nuclear power stations. Statistics show a decline in the use of nuclear energy for electricity in Germany between 2010 and 2011. In 2010, nuclear power accounted for 22.4% of the country's national electricity. In 2011, it accounted for much less, 17.7%. This decline is in line with the country's national policy to completely remove reliance on nuclear energy.

Although Germany has had an anti-nuclear posture for several years, the policy was strengthened and put into active state policy after the Fukushima nuclear disaster of Japan in 2011. On 30th May, 2011, Germany formally announced plans to abandon nuclear energy completely in eleven years. That is to say, by 2022, Germany would have done away with all its nuclear plants if the policy is strictly adhered to. This is phenomenal because Germany's policy demonstrates that nuclear energy is so dangerous that it would not even use it for civil purposes.

The country's policy was apparently influenced by the wishes of a great percentage of its citizens. The decision to shut off all nuclear plants and phase out nuclear energy was supported by three-fourths of Germans and opposed by no political party. In addition to that, there have been anti-nuclear demonstrations by the citizens across the country. There was an anti-nuclear demonstration on 12th March 2010 by approximately 100,000 people. On 26th March, 2011, 250,000 people protested in four German cities against nuclear power.

6.6.2 Australia

Australia is a significant country in the context of nuclear weapons elimination. First of all, it has a nuclear plant. It is also the greatest producer of the world's uranium, 31%. Australia is one of the countries under the North Atlantic Treaty Organization's nuclear umbrella. It is, therefore, an ally to

strong nuclear states like the United States of America and the United Kingdom and in a position to influence policy internationally.

Very significantly, the seat of the Canberra Commission on the Elimination of Nuclear Weapons was situated in Australia and headed by a prominent Australian, Sir Richard Butler. Australia has, therefore, been involved in the struggle for the abolition of nuclear weapons for quite a long time. An Australian lawyer, Daniel Tynan, believes that Australia has a unique part to play in the international campaign for the elimination of nuclear weapons. In a paper, he states that *“It is essential that countries like Australia, with the resources, capacity and international standing to act, take the lead in developing practical policy solutions to champion the elimination of nuclear weapons.”*

Tynan’s suggestion is that Australia should seek to establish itself as a global authority on non-proliferation and disarmament strategy and this could be achieved by establishing a permanent, government-funded research institute focused on the development of public policy in this field.

Undoubtedly, Australia has a strong anti-nuclear weapons background. Apart from the work of the Canberra Commission, Australia has also worked jointly with Japan in the Australian-Japanese International Commission on Nuclear Non-Proliferation and Disarmament. On the 6th of August, the Australian Red Cross began a campaign to re-ignite the push for a ban on the use of nuclear weapons. Australia has held anti-nuclear rallies in the nation’s biggest cities. In 1982 the participation numbered to 10,000 while in 1985 the number of participants had increased to 350,000. In March, 2012, hundreds of anti-nuclear demonstrators converged on the Australian headquarters of global mining giants, BHP Biliton and Rio Tinto. The 500-strong march through Southern Melbourne called for an end to uranium mining in Australia. There are also several non-governmental organizations in Australia that are invested in the struggle for the abolition of nuclear weapons. Below are some of the active groups.

- i. Anti-Nuclear Alliance of Western Australia.

- ii. Australia Conservation Foundation.
- iii. Australian Nuclear Alliance.
- iv. Greenpeace Australia Pacific.
- v. Peace Organization of Australia.
- vi. The Australia Institute.
- vii. Women Against Nuclear Energy.
- viii. Friends of the Earth, Australia.
- ix. The Wilderness Society.
- x. Kupa Piti Kungka Tjuta.
- xi. Cycle Against the Nuclear Cycle.
- xii. Energy Science.
- xiii. The Sustainable Energy and Anti-uranium Service Inc.
- xiv. Australian Greens.

6.6.3 Japan

Japan has a peculiar history in the nuclear weapons context. First of all, it is the only country that has experienced nuclear attacks during war. Secondly, in March 2011, the Japanese suffered another nuclear disaster in Fukushima when their civil nuclear reactor burst and leaked out radioactive materials and thereby, causing health hazards. The Japanese are, therefore, more than any other people on earth, aware of the destructive effects of nuclear weapons.

Since the end of World War II, Japan has maintained a zero policy on nuclear weapons, a “non-nuclear policy” also called “*hikaku-seikaku*.” The policy is built around three principles, the principles of:

- i. Not possessing.
- ii. Not developing.
- iii. Not introducing nuclear weapons into Japan.

Apparently Japan's anti-nuclear policy is linked to its painful history. It is also strengthened by the assurance of nuclear protection that the United States of America had given to it. In a bid to prevent Japan from developing its own nuclear weapons, the USA placed the defeated empire of Japan under its nuclear umbrella via the US-Japan Joint Declaration on Security. The Japanese have, therefore, been relying on extended deterrence of the USA.

Even though the Japanese have a security alliance with the biggest nuclear power, the stance of the government judging its activities through the years, clearly demonstrates an aversion to the possession of nuclear weapons. Since 1994, for instance, Japan had annually introduced United Nations resolutions for the elimination of nuclear weapons, to the General Assembly. This singular act points towards a non-endorsement of nuclear weapons and shows that the nuclear alliance with the USA is a necessity for as long as nuclear weapons exist, and not an endorsement of the status quo. Japan has also:

- i. Hosted United Nations' Conferences on Disarmament.
- ii. Supported a nuclear-weapon-free-zone in Central Asia.
- iii. Encouraged the negotiation of the Fissile Material Cut-off Treaty.
- iv. Assisted denuclearization efforts in the former Soviet Union and,
- v. Launched an International Commission on Non-Proliferation and Disarmament with Australia.

The foregoing facts clearly put Japan in the category of disarmament partners or potential facilitators of nuclear weapons elimination. One opinion poll surveyed in 2002 showed that 97% of Japanese respondents either agreed (77%) or somewhat agreed (20%) that an international treaty should exist that

bans nuclear weapons. Another poll in 2005 revealed that only 6% favored Japan's nuclearization, while 86% were opposed.

6.6.4 United Kingdom and Norway

A peculiar and innovative approach to nuclear disarmament was initiated by a nuclear weapon state, the United Kingdom and a non-nuclear weapon state, Norway. The initiative was the result of collaboration between experts from Norway and the United Kingdom, to investigate technical and procedural challenges associated with a possible future nuclear disarmament regime. During the 2010 NPT Review Conference, UK and Norway presented work on their joint initiative called UKNI. The project was designed to develop new technologies, methods and procedures for the verification of future dismantlement. In essence, they have adopted a scientific approach to the problem of nuclear disarmament.

The project is based on the notion that in a future verification regime for nuclear warhead dismantlement, inspecting parties are likely to request access to highly sensitive facilities and weapon components. Such access will have to be managed carefully by the hosting party, to prevent the disclosure of sensitive information, both in compliance with the NPT and in consideration of national security. The initiative has two basic components, the Information Barrier Project and the Managed Access Project.

Furthermore, in a revolutionary move, Norway hosted an international conference in March, 2013, which focused on the humanitarian impact of nuclear weapons. This was with a view to finding a permanent solution to this genre of weapons of mass destruction that is threatening the security of the world. The conference was hosted by the Norwegian Prime Minister in Oslo between 4th and 5th of March, 2013 and was attended by representatives of 127 states, including two nuclear weapon states,

India and Pakistan, non-governmental organizations and other stakeholders in the movement to abolish nuclear weapons.

The Oslo conference is itself an outstanding positive development in the movement for nuclear weapons' abolition. This is because it was an initiative of a non-nuclear weapon state and 127 states of the international community manifested an overwhelming support for the cause by participating actively in the conference. They also unanimously expressed the desire for proactive action towards a treaty banning nuclear weapons. The collective force of more than two thirds of the members of the international community cannot be undermined. The fact that deliberations of the conference will be continued in Mexico means that for the first time a platform has been created whereby non-nuclear weapon states have taken a decisive stance towards nuclear disarmament.

6.6.5 The Stake and Nuclear Posture of Africa

The African continent is very significant in the international system. Together, the fifty-four African country members of the United Nations Organization account for a little over one-third of the organization. Three African countries are at 2013 non-permanent members of the United Nations Security Council. Africa is also a stabilizing force in the international system. That is, because, all African countries are members of the Non-Aligned Movement (NAM). Members of the NAM are not allies to either of the Western or Eastern Bloc, hence are generally not caught up in the post-Cold War conflicts between nations that are allied to the two nuclear superpowers. Since the New Partnership for Africa's Development (NEPAD) recognized nuclear material as an alternative source of energy for

Africa, a number of African countries have begun to invest into developing nuclear power plants for electricity generation. The pertinent questions at this juncture are:

- i. What is the stake and nuclear posture of Africa?
- ii. How involved is the African continent in the struggle towards the elimination of nuclear weapons?
- iii. Could African countries be potential facilitators of nuclear weapons law?

First of all, no African country possesses nuclear weapons. There are, however, a few African countries that possess nuclear research reactors and only South Africa possesses nuclear power reactors. Many African countries have uranium ore deposits, which is a key ingredient in the production of nuclear weapons. Niger and Namibia are large producers of mined uranium, making them among the main suppliers of uranium to the international community and this also makes them significant in the scheme of fissile-materials cut-off. All African countries have ratified the Nuclear Non-Proliferation Treaty and all are signatories to the Treaty of Pelindaba, declaring the African continent a nuclear weapons free zone. All are signatories to, but not all have ratified the Comprehensive Test Ban Treaty.

From the foregoing, it can be seen that the nuclear posture of Africa as a whole demonstrates a non-possession, non-acquisition and non-use policy. It is also clear that African countries are the most compliant to nuclear weapons laws. It is a historical fact that South Africa, being the only African country that ever acquired nuclear weapons, voluntarily disarmed and willingly subscribed to the NPT thereafter. Libya and Algeria, two other African countries, did not put up a defiant fight with the IAEA before abandoning their nuclear weapons programs. Almost all the continents of the world have countries that possess nuclear weapons. However, as big and resourceful as Africa is, African countries have not given the international community much concern about nuclear weapons proliferation. The nuclear posture of Africa, therefore, indicates an aversion to nuclear weapons.

It has been observed that Africa as a whole has not been proactive in the movement to abolish nuclear weapons. Some analysts are of the view that this state of affairs is due to the fact that there are greater security concerns in Africa since no African state possesses nuclear weapons. Be that as it may, the African continent has many reasons to be invested in the movement for the abolition of nuclear weapons. One reason is that having declared itself a nuclear weapons free zone and committed absolutely to the NPT, the African continent has divested itself from ever having the right to possess nuclear weapons. Meanwhile, nuclear weapon super powers have put their allies under special nuclear umbrellas. There is the NATO alliance for collective security of the Western Bloc, which has three nuclear power states; USA, UK and France, and there is the WARSAW Pact for the Eastern Bloc, led by nuclear super power, Russia. The Middle-East has not yet declared itself a nuclear weapons free zone and it inhabits volatile states that are regarded a nuclear threat to the international community, same as Asia. Beside the NPT and Treaty of Pelindaba Protocols by which nuclear weapon states have given negative security assurances, Africa has no special security pact or alliance with any nuclear powers, being non-aligned to either. In any eventuality involving the use of nuclear weapons, no African country can manifest any form of nuclear deterrent.

In international affairs, where nuclear powers use international pressure to make weaker states do their bidding, African states could be potentially victimized because of the weakness of their military strength, compared to nuclear armed states. The African Union, which is the umbrella organization of unity for all African countries, with its conventional military strength cannot compare with the European Union, which is reinforced by two strong nuclear powers, France and Britain. In as much as international politics is intertwined with international law, the African continent may invariably stand at a disadvantage in the international community because of its weak nuclear status. The events of the

Rwandan Genocide have demonstrated how the international community, represented by the United Nations Organization, could remain indifferent to calamitous occurrences in Africa.

During the three months genocide by which Rwandan *Hutus* massacred the *Tutsis*, the United Nations Security Council did not mandate a humanitarian intervention. Hence one of the worst genocides in world history carried on brutally. This accentuates the blunt reality that had an African member been one of the powerful five permanent members of the Security Council, that kind of indifference might not have been witnessed. The foregoing collectively point to the reason why Africa has to be concerned about, and involved in the movement to abolish nuclear weapons on earth, create greater security for all humans and the planet as a whole and remove the dichotomy of the 'nuclear haves' and 'nuclear have nots.' Furthermore, even if all the stated reasons above did not exist, Africa would be wise to concern itself with elimination of nuclear weapons since a major nuclear war has been calculated to have the effect of wiping out the whole of humankind and the ecosystem of the planet. Africa is not exempt from potential calamity if a nuclear war occurred just because it has no nuclear weapons.

To the question of the African continent's capability to be a facilitator of nuclear weapons law enforcement, there is no doubt that the continent has all the human and material resources, as well as opportunities to participate in a proactive global movement to abolish nuclear weapons. There are already some African countries that have manifested the potential to lead Africa into the movement. South Africa has manifested goodwill and compliance to international obligations, particularly pertaining to nuclear weapons. Egypt was the forerunner of the move to declare the Middle-East a nuclear weapon free zone by submitting a proposal for that in 1974. It could also assume the leadership in moving Africa towards the international fight to abolish nuclear weapons on earth. African states had

participated actively in the negotiations of the ban on cluster munitions and anti-personnel landmines. This is a significant precedent for participation in negotiations on a total nuclear weapons ban.

6.6.6 Non-Governmental Organizations Invested in the Movement to Abolish Nuclear Weapons

There is an active movement for the abolition of nuclear weapons, composed of non-governmental organizations, particularly in countries that possess nuclear weapons and nuclear technology. Prominent among the organizations is the 'International Campaign to Abolish Nuclear Weapons (ICAN). ICAN is a global campaign coalition working to mobilize people in all countries to inspire, persuade and pressure their governments to initiate negotiations for a treaty banning nuclear weapons. It has 300 partners in 70 countries. Other non-governmental organizations invested in the same cause are:

- i. World Disarmament Campaign.
- ii. International Physicians for the Prevention of Nuclear War.
- iii. Global Zero.
- iv. European Nuclear Disarmament.
- v. Friends of the Earth International.
- vi. Greenpeace International.
- vii. Nuclear Information and Resource Service.
- viii. OPANAL.
- ix. Parliamentarians for Nuclear Non-Proliferation and Disarmament.
- x. Pax Christi International.
- xi. Ploughshares Fund.
- xii. Socialist International.
- xiii. Soka Gakkai.

- xiv. World information Service on Energy.
- xv. World Union for Protection of Life.

CHAPTER SEVEN

CONCLUSION

7.1 Summary

The preceding chapters of this work critically examined the issue of nuclear weapons with regards to their history, effects, legal framework for their elimination and the implications for world peace and security. Nuclear weapons are weapons of mass destruction which came into being following the

scientific breakthroughs of the 1930s. As far as the nuclear weapon is concerned, there are two camps. There are nuclear weapon states and non-nuclear weapon states. Five states of the international community, the United States of America, Russia (Former Soviet Union), United Kingdom, France and China acquired their nuclear weapons before the promulgation of the Nuclear Non-Proliferation Treaty in 1968. There are four other countries that developed nuclear weapons after 1968. They are Pakistan, India, Israel and North Korea. All other countries of the international community are, accordingly, referred to as non-nuclear weapon states.

Nuclear weapons have multidimensional harmful effects on human beings and the natural environment. The production, testing, storage and disposal of nuclear weapons and nuclear waste have proven overtime to cause significant health damage to individuals. The mere possession of nuclear plants has brought disasters upon the possessing states with examples of the Chernobyl disaster in Russia and the Fukushima Daichi disaster in Japan. Analysts have also projected that a nuclear war involving the detonation of nuclear weapons has the potential to destroy the entire planet earth. The use of nuclear weapons in an attack by the USA against the Japanese cities of Hiroshima and Nagasaki in 1945 caused catastrophic consequences on the empire and demonstrated the destructive capacity of the nuclear weapon. Since then, states have developed much more powerful nuclear weapons. In spite of all these negative implications of nuclear weapons, states continue to maintain them in their military arsenals.

The international community has developed a legal framework for the control of proliferation and eventual elimination of nuclear weapons. The most significant aspect of the framework is the Nuclear Non-proliferation Treaty of 1968. The framework consists of multilateral and bilateral treaties, judicial opinions and interpretations of law, declarations and resolutions of the United Nations General Assembly and principles of international humanitarian law. After four decades since the Non-

proliferation Treaty launched the anti-nuclear regime, the international community has not moved closer to completely eliminating nuclear weapons from the earth and proliferation is on the rise. This state of affairs is due to the fact that the laws which constitute the legal framework have been manipulated by nuclear powers to concentrate on hindering proliferation but not focusing on disarmament by nuclear weapons possessors. Consequently, with the passage of time since the framework was launched, this double standard has become evident and other non-nuclear weapons states are asserting their rights to also produce nuclear weapons.

The world nuclear powers have maintained the relevance of nuclear weapons with the doctrine of nuclear deterrence, which posits that the possession of nuclear weapons by states deters states from going to war with each other because of the fear of its use, which would lead to the destruction of all the parties involved. However, studies on the patterns of warfare reveal that although the existence of nuclear weapons might have deterred their possessors from going to war with each other, it has not prevented or lessened the occurrence of civil wars and interstate wars among lesser powers. More importantly, there are new threats to world peace and security like terrorism which make the nuclear deterrence doctrine absolutely irrelevant, while projecting the urgency to abolish nuclear weapons and prevent them from going under the control of terrorist groups.

In a bid to have a judicial opinion about the legitimate status of the use of nuclear weapons, the United Nations General Assembly requested the opinion of the International Court of Justice as to whether the use or threat to use nuclear weapons was legitimate under international law. In its Advisory Opinion, the court ascertained that the use of nuclear weapons was under the purview of the law of armed conflict. It also stated that any use of nuclear weapons would be contrary to the rules of international humanitarian law. It, however, did not go all the way to declare that the use of nuclear weapons was absolutely prohibited under international law. Rather, it stated that in view of the facts at

its disposal, it could not decide definitively whether the use of nuclear weapons in extreme circumstances of self-defence where the survival of a state was at stake, was legitimate. In delivering an inconclusive decision about the legitimacy of nuclear weapons, the ICJ left a lacuna in the legal framework for the elimination of nuclear weapons.

The total elimination of nuclear weapons lies substantially in the hands of the states that possess them. This will be achieved through the states destroying all their nuclear weapons in a verifiable disarmament process. Studies on the nuclear posture of nuclear armed states reveal, however, that most nuclear weapon states consider the achievement of nuclear disarmament to lie beyond any planning horizon and, are, therefore, investing in significant modernization of their nuclear weapons and delivery systems. While the biggest nuclear powers, U.S.A and Russia have over the decades successively reduced their nuclear arsenals in accordance with the bilateral treaties they have signed, it is also true that they have maintained and improved their much bigger, thermonuclear weapons.

One of the major obstacles to the complete elimination of nuclear weapons lies in the enforcement culture of international law in general and nuclear weapons law in particular. The enforcement mechanism of nuclear weapons law has two significant components. First is the verification of compliance component which is represented by the International Atomic Energy Agency. This body performs a somewhat 'watchdog' function over the activities of states that possess nuclear plants to ensure they are not diverting nuclear energy from civil uses to military purposes. The body reports defaulting states to the United Nations Security Council for further action. By and large, the body has been successful in the control of proliferation but had at times fallen short of credibility by being partial to states that are allies to the nuclear super powers.

The second significant component of the enforcement mechanism is the United Nations Security Council, which is responsible for enforcing against violations of states. This body is constituted by the

original five nuclear weapon states recognized by the non-proliferation treaty. The constitution of this enforcement component is, therefore, problematic because of the obvious conflict of interest it creates. While these five states by virtue of their position, possess and have exercised the right to sanction states that attempt to acquire or manufacture nuclear weapons, no state can enforce any sanction upon them for modernizing their nuclear arsenals, nor can they be sanctioned for refusing to take cogent steps towards disarmament. Ultimately, they are the primary reason why nuclear weapons remain relevant in the world.

While it has been shown that the nuclear super powers have stalled the progress of nuclear weapons elimination, the dissertation has also shown that there is universal agitation for nuclear weapons elimination which manifests in the activities of certain states of the international community, individuals and non-governmental organizations. The destruction caused by the Fukushima nuclear plant in Japan has strengthened the resolve of some non-nuclear weapon states to evacuate nuclear weapons from the world. Some, like Germany, are in the process of completely giving up their exploitation of nuclear energy in civil uses because of the hazardous consequences of maintaining a nuclear facility.

Furthermore, regions of the world that have declared themselves nuclear weapon free zones are at an obvious disadvantage if nuclear weapons remain in the nuclear arsenals of nuclear weapon states. The African continent has a significant stake in the elimination of nuclear weapons for many reasons. No African state possesses nuclear weapons; all African states have ratified the Nuclear Non-proliferation Treaty and Africa has been declared a nuclear weapon free zone by virtue of the African Nuclear Weapon Free Zone Treaty. Africa has, therefore, adopted an anti-nuclear posture which would leave the continent vulnerable if nuclear weapons continue to have relevance in the defense policies of states and retention in their military arsenals.

Nuclear disarmament and nuclear non-proliferation are inextricably linked. If nuclear weapon states continue to hold on to their nuclear weapons and refuse to get rid of them, non-nuclear weapon states would eventually not feel obliged to refrain from producing their own nuclear weapons, hence, leading to proliferation. This has already begun to occur. Conversely, if nuclear proliferation is on the rise or threatens to be, nuclear weapon states would not risk giving up their nuclear weapons and becoming defenceless. This state of affairs creates a stalemate situation and a real and serious setback to the goal of total elimination of nuclear weapons. Ultimately, the situation can be described as this, either all states give up the right to have nuclear weapons or all states be entitled to possess nuclear weapons at their will. In other words, either the whole world proclaims the right to live in safety or conversely, the whole world subjects itself to inevitable and eventual catastrophe. The obvious resolve for the preservation of world peace and security is the elimination of the deadly weapons that could eventually lead to the destruction of the world.

7.2 Findings

The dissertation made certain findings in accordance with the problem of the research and they are hereunder presented.

7.2.1 The elimination of nuclear weapons is deeply embedded in world politics. The drive for global hegemony among the nuclear superpowers influences the sustenance of nuclear weapons in their security policies and the move to create a regulatory framework for nuclear weapons has been primarily motivated by the superpowers' desire to limit the possibilities of having nuclear rivals by preventing proliferation.

7.2.2 The laws which constitute the framework for elimination of nuclear weapons are inadequate. There is no treaty that prohibits the possession of nuclear weapons. In fact, there is no treaty that even prohibits the use of nuclear weapons. The extant, robust legal framework for nuclear weapons' elimination leans substantially towards the prevention of nuclear weapons proliferation by states that do not possess them. Disarmament is featured only in policy statements and bilateral agreements between states. The framework, therefore, concentrates largely on nuclear non-proliferation than disarmament. The Non-Proliferation Treaty of 1968 is the most significant treaty on nuclear weapons. It, however, has its inherent flaws which has left lacunae in the law. The flaws include the absence of a definite timeline for disarmament as well as a mandatory clause on disarmament. This has produced an unequal double standard in the obligations expected of nuclear weapon states on one hand, and non-nuclear weapon states, on the other, as the treaty has a specific prohibitory clause on non-proliferation. This double standard situation is a stumbling block to the achievement of the ultimate goal of nuclear weapons law.

7.2.3 Another obstacle to the realization of the goal of nuclear weapons law lies in the inefficiency of its enforcement mechanism. The United Nations Security Council in its current composition as the primary enforcement body of international law is incompetent to fairly enforce nuclear weapons law. This is because the five permanent members of the council are the five original nuclear powers and they have consistently manifested the intent to preserve their nuclear weapons in the interest of their national security. They, therefore, have a vested interest in the subject, which makes them inadequate to enforce the law.

7.3 Recommendations

The general recommendation of this research is that the issue of nuclear weapons' elimination must be confronted in a holistic way. It must also be confronted timeously. Against this background the following specific recommendations are hereunder presented.

7.3.1 International pressure should be intensified for the adoption of the draft model nuclear weapons convention as the substantive treaty for the absolute prohibition of nuclear weapons. States that are proactive in pursuing total elimination of nuclear weapons like Norway, Australia, Germany and Japan, should take the lead in this endeavour. The African continent, which has clearly adopted an anti-nuclear posture, should also actively participate in this process. The bid for the adoption of the model nuclear weapons convention should be strongly projected and followed through in the next NPT conference coming up in 2015. The substantive nuclear weapons convention will effectively supplement all the lacunae and remedy the flaws of the NPT.

7.3.2 There should be a coordinated effort by pressure groups to raise the consciousness of the entire world to the urgent need to completely eliminate nuclear weapons. Pressure should be brought to bear on the nuclear armed states to get rid of their nuclear weapons. Awareness campaigns by the various anti-nuclear organizations, on the dangers of nuclear weapons and the urgent need for their elimination should be intensified. States that uphold an anti-nuclear ideology should invest financially, morally and technically in this universal process. These anti-nuclear entities should organize and sponsor people to sensitization workshops, seminars, lectures and projects on the need, ways and initiatives to achieve a nuclear weapons-free world. Participants should be sourced universally even from completely nuclear weapon free zones and particularly from states that refuse to be party to the nuclear weapon treaties. This is with a view to start a moral revolution against the possession of nuclear weapons. Such moral

revolution is poised to support any proactive steps taken towards disarmament. It will also strengthen the resolve of the major actors in the movement for nuclear weapons abolition.

The international community must develop the means to stop the development and patronage of nuclear weapons while preserving the use of nuclear technology for peaceful purposes. This can only be successful when the status of nuclear weapons non-possession is universal and the same for all nations.

7.3.3 In view of all the finding of this dissertation pertaining to the inefficiency of the enforcement mechanism of nuclear weapons law, it is hereby recommended that a specialized agency be established under the United Nations Organization for the exclusive purpose of the elimination of nuclear weapons from the earth. It should be a fair and impartial agency with extended powers for nuclear weapons' elimination. This is important to ensure impartiality of the members and avoid a situation where the main enforcement body of the law is constituted by members with vested interest in the subject of elimination, like the current set-up of the United Nations Security Council. The organization's membership should consist of representatives of all the states of the international community. It should have a strong affiliation and/or collaboration with non-governmental organizations that are invested in the anti-nuclear movement. The agency would be tasked with the following:

1. The realization of a substantive nuclear weapons convention.
2. Realization of a fissile materials cut-off treaty.
3. Drawing up a framework for the independent processing of nuclear energy for states' civil uses.
4. Ensure nuclear disarmament of states.
5. Support the IAEA in ensuring the non-proliferation of nuclear weapons.
6. Facilitate all other activities by states, organizations and individuals, which are poised towards the elimination of nuclear weapons.

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