

**U.S. APPROACH TOWARDS NUCLEAR DISARMAMENT
AND
“GLOBAL ZERO”**

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ROHIT KUMAR SINGH



United States Studies Programme

Centre for Canadian, US & Latin American Studies

School of International Studies

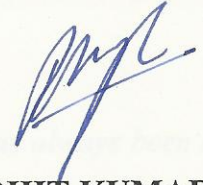
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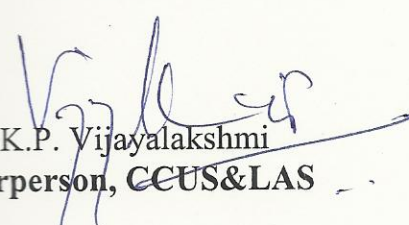
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ROHIT KUMAR SINGH

CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.



Prof. K.P. Vijayalakshmi
Chairperson, CCUS&LAS



Prof. Chintamani Mahapatra
Supervisor

CONTENTS

	Pages
1. Preface	
2. Introduction	1-31
3. Current American Domestic Debates on Nuclear Disarmament	32-55
4. Obama’s “Global Zero” Proposal: U.S. Motivations and International Reactions	56-83
5. Conclusion	84-91
6. References	92-102

LIST OF TABLES

Table 1: Comparison between U.S. and Soviet Union Page No. 16-17
of Nuclear Tests, 1945-1962

PREFACE

President Barack Obama's speech at Prague in 2009 was a historic moment for the proponents and supports of the nuclear disarmament. The movement which was undergoing a prolonged period of inactivity owing to the indifferent attitude of world leaders got back to its feet after Obama, the President of the most powerful country of the world, publically endorsed it by giving a clarion call for a "world free of nuclear weapons". While countries like Russia were cautious in their response to the speech the academic circle soon became abuzz with activity as experts became analyzing the reasons behind this change in stance ushered in by the U.S. administration on the nuclear issue. While some observers praised Obama for infusing a new hope in a movement that otherwise always has been a puppet of political will, others criticized him for hiding the narrower goal of state security behind the lofty ideal of total nuclear disarmament. To judge Obama and his policies would be too early a conclusion as he is still at the helm of the affairs and also policies take time to shape up and can only be judged in retrospect.

However, the study has taken up the task to analyze the U.S. approach to nuclear disarmament from 1945 onwards up till Obama. The first chapter of this dissertation has been dedicated to this task. The major efforts undertaken by successive United States' administration after 1945 have been chronologically studied in this chapter. In addition to this, the respective successes and failures of various administrations along with their intentions have also been analyzed here.

The second chapter has undertaken the task to analyze the various debates related to nuclear disarmament that have either shaped or have been shaped by the policies of different U.S. administrations. Some of these debates like the one over disarmament versus deterrence have been there since the dawn of the nuclear age and still hold much relevance in the changed scenario.

The third chapter specifically focuses on Obama and his call for "Global Zero". The reaction to the speech especially from the academic circles has been overwhelming. The chapter has analyzed many of these academic positions extensively. The aim of this study is not to put President Obama in a spot for his speech or his later policies on nuclear disarmament but to analyze them from a purely academic point of view. There is no doubt that Obama scored well over many of his predecessors in his commitment towards nuclear disarmament but the realist in him stopped him from going the full

distance in making his vision into reality. Many of the later policies and documents after 2009 depict this clearly. This study will analyze Obama's nuclear policies from the context of not only the past U.S. nuclear policies but also from the context of the vision that he had unveiled at Prague.

U.S. as the creator of the first nuclear bomb and being in possession of huge stockpiles of it has always been an important player whose role cannot be ignored in shaping the nuclear debate. Thus, for understanding the intricacies of the debate on nuclear disarmament and how it has been shaped by the international politics analyzing United States role, motivations and intentions becomes really important and this is also the purpose of this study. I hope this study proves to be a successful addition to an already vast literature on U.S. and its approach towards nuclear disarmament.

Rohit Kumar Singh

CCUS&LAS

JNU

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CHAPTER 1

INTRODUCTION

When President Obama received the Noble Peace Prize for his efforts in the direction of total nuclear disarmament there was wide ranging criticism by the skeptics who viewed it as too early a recognition. However, there were some admirers as well who saw in Obama a new champion of nuclear disarmament. Although efforts in this regard were being made much before Obama came into power, the apathy of the last Bush administration towards the cause of nuclear disarmament had disheartened many. Obama's public declaration of the goal to achieve 'global zero' gave the nuclear disarmament movement a much needed shot in the arm. The speech gave rise to a flurry of activity in the field of nuclear disarmament and a series of arms control and disarmament events were held soon after it in rapid succession (Landau 2011:15). However, this initial enthusiasm did not last for long as Obama's administration soon got caught up in reviving an economy, which got hit by the worst economic crisis since the Great Depression of 1930s. As a consequence of this, the issue of nuclear disarmament got lost somewhere in the middle of Obama's Presidency. Despite this slackness witnessed in the latter part of his presidency there have been many achievements of the President, which cannot be easily brushed under the carpet. Obama's public endorsement gave a much needed boost to the global discourse on nuclear disarmament and led to the accomplishment of some very important milestones like the signing of arms reduction treaty called the New START with Russia and convening the Nuclear Security Summit in 2010.

The nuclear disarmament movement has had a long history. It only became part of the global discourse after the horrific nuclear bombing of the Japanese cities by the United States in 1945 although many scientists including Albert Einstein and Niels Bohr had much earlier warned of the immense capability of the nuclear weapons in causing widespread destruction. However, their advices had gone unheeded. The immense threat that nuclear weapons could pose to international peace and security became apparent only after the cities

of Hiroshima and Nagasaki were bombed with nuclear weapons. The bombings were followed by a series of debates and discussions around the world that called for a reduction and subsequent elimination of nuclear weapons. And, for the first time, nuclear disarmament became a common rallying point for people around the world as they became more and more aware of the dangerous fallouts of nuclear weapons. The criticism of the nuclear weapons grew in the political circles of U.S. as well and this produced limited success in the form of Acheson-Lilienthal Report and Baruch Plan of 1946, both of which were related to control and elimination of nuclear weapons. However, this initial enthusiasm did not last for long as the world soon got engulfed in the east-west conflict and a subsequent nuclear arms race. The ideal of a nuclear free world got lost somewhere in the middle.

“What had undermined this once-thriving movement? A key factor was the escalating cold war, which left little room for ideas of disarmament and One world.”(Wittner, 2009:49)

During the Cold War, which lasted for almost half a century, the dominant objective remained nuclear deterrence and the control of nuclear proliferation. According to the Realist school of thought the principle of nuclear deterrence prevented breakout of a nuclear war between the two adversaries of the Cold War era as the idea of Mutually Assured Destruction or MAD prevented the two from using the nuclear weapons in any kind of dispute. However, the very idea of nuclear deterrence, which made temporary peace possible in the Cold War period, was also responsible for non-elimination of nuclear weapons in that period.

Nuclear non-proliferation was the other idea that dominated the Cold War era nuclear politics. The first major effort in the direction of nuclear non-proliferation came in the form of US sponsored NPT (Nuclear Non-Proliferation Treaty), which divided the states in terms of those who possessed or did not possess the nuclear weapons. The treaty not only aimed to prevent the spread of nuclear weapons to non-nuclear weapon states but also obliged the nuclear weapon states to work in the direction of nuclear disarmament. However, NPT failed to become a major success as many countries including

India viewed the treaty as discriminatory in nature since it allowed the nuclear powers to maintain their nuclear arsenal but prevented the non-nuclear states from producing their own nuclear weapons. In addition to this, both the superpowers i.e. U.S. and USSR also undertook a series of negotiations to reduce the quantity of nuclear weapons held by them. SALT 1 (Strategic Arms Limitation Talks) and SALT 2 were the result of these negotiations between the two countries although they produced little success as the nuclear capability of both the countries still remained high and also the nuclear arms race continued unabated between them.

“By 1974, the nuclear stockpiles of the United States and the Soviet Union had reached the equivalent of a million times the destructive power of the atomic bomb that had destroyed Hiroshima.” (Wittner, 2009:113)

Some cheer was brought to the campaigners of nuclear disarmament in the last phase of the Cold War when US President Ronald Reagan and USSR President Mikhail Gorbachev made serious attempts at reducing the nuclear threat that existed between them. The two held a series of meetings, which produced the landmark Intermediate-Range Nuclear Forces (INF) agreement and laid the grounds for the Strategic Arms Reduction Treaty (START). Although the meetings failed to fulfill completely the promises of Reagan and Gorbachev's proposals for radical nuclear reductions (Kimball 2004), it was significant in the sense that it paved the way for retreat of both the countries from potential nuclear confrontation and prepared ground for future talks.

In the post-Cold War era, there were greater expectations of more efforts in the direction of nuclear disarmament considering the old Cold War rivalry between US and Soviet Union had come to an end but for almost a decade not much could be achieved. A number of treaties were signed between US and Russia including START 1, START 2, SORT etc. for the purpose of reduction in nuclear stockpiles of both the countries but the efforts did not prove to be enough for the complete elimination of the nuclear weapons from the world. The confrontational attitude adopted by the Bush administration towards the 'rogue' states only worsened the matter.

Finally, it was a series of newspaper articles in the Wall Street Journal in 2007 and 2008 that put nuclear disarmament back on the international agenda. These articles by the 'Group of Four' - George Shultz, William Perry, Henry Kissinger, and Sam Nunn (alternatively referred to as 'Gang of Four') called for complete nuclear disarmament and declared that the reliance on nuclear weapons in this world for the purpose of deterrence had become "increasingly hazardous and decreasingly effective". Positive statements supporting the views of the 'Group of Four' poured in from across the world and the global nuclear disarmament regained its strength again.

This was followed by Obama's famous speech at Prague on April 5, 2009 where he called for a world free of nuclear weapons. He called for the reduction and eventual elimination of existing nuclear weapons, strengthening of the NPT regime, preventing the spread of nuclear weapons to additional nations and preventing terrorists and political extremists from obtaining nuclear weapons or material. Obama's speech was well received around the world and was followed by the signing of the New START Treaty between US and Russia and also release of U.S. Nuclear Posture Review or NPR in 2010. A number of conferences including the Nuclear Security Summit were also held for the same purpose.

In today's world, the threat of nuclear weapons is great and there is an urgent need to adopt nuclear disarmament measures rapidly. Already the threat of formation of a "nexus of weak states, criminality and terrorism" (Walker 2009) is looming large. Added to this concern, as Walker says, is that the past approaches to the sustenance of international nuclear order, including deterrence, arms control and non-proliferation could prove to be impotent against nuclear terrorism. Also, to have greater legitimacy in its effort to confront emerging nuclear proliferators United States' needs to enhance its commitment to both NPT as well as CTBT (Comprehensive Nuclear Test Ban Treaty). Landau (2011) says that only United States' greater participation in the global nuclear disarmament movement could take the sting out of the 'double standard' charge that it has often faced from many of the non-nuclear

weapon states. Obama's declaration needs to be seen in the context of all these concerns.

This study will analyze Obama's agenda for 'Global Zero' along with its successes and failures. Along with this, for a more nuanced understanding of Obama's declaration and context in which the famous speech was made, an analysis of the nuclear disarmament movement from a historical perspective will be done here. US's position on this entire movement, in the form of various debates, will especially be taken into account.

What is Nuclear Disarmament?

Nuclear weapons are today the gravest threat that exists to the humankind, which have the wherewithal to annihilate the entire human race that exists on this planet and that too, many times over. The irony here lies in the fact that these nuclear weapons which threaten the very security of the humanity were created and accumulated by the leaders for the purpose of their protection from an enemy attack. Thus, the nuclear weapons became the Frankenstein's monster that now endangers its own creator.

Realization of the immense destructive potential of the nuclear armaments in causing irreparable damage to the human race has made many scholars and anti-bomb groups adopt the achievement of global nuclear disarmament as their cherished goal. However, as with any other global issue the final key here too lies with the leaders of the world who have been at times forthright and many a times been ambivalent in their approach towards nuclear disarmament. National interest has always been the guiding element or the pivot around which the leaders around the world have formed and modified their attitude towards nuclear disarmament.

The first major impetus to the nuclear disarmament movement was given by the very act of destruction that was caused by the nuclear bombing of Japanese towns by the United States in 1945. It gave rise to a flurry of activity as a number of anti-nuclear bomb groups sprang up around the world advocating the abolition of nuclear weapons. Media groups like CBS radio

and Chicago Tribune criticized the act of bombing and expressed fear of a future nuclear war (Wittner, 2009:12). Nuclear disarmament, which means both the act of reduction as well as elimination of nuclear weapons leading to the creation of a nuclear-free world, became the buzzword around the world. However, the start of the Cold War and the subsequent mindless arms race between U.S. and Soviet Union undermined the whole movement. Despite this setback, nuclear disarmament movement remained strong and vocal over the years, calling for total abolition of nuclear weapons.

Of course, the leaders of some of the most-powerful countries modified the goal of total nuclear disarmament many a times to suit their needs like national interest and even made it dependent on the achievement of other important but minor goals. During the Cold War, the word deterrence came to be attached with nuclear arms race, which had consumed the two most powerful countries of that time. The popular notion was that the nuclear deterrence would prevent occurrence of third world war since the principle of Mutually Assured Destruction (MAD) would prevent any country from attacking the enemy country with nuclear weapons. This idea became one of the major impediments in the achievement of the goal of nuclear disarmament as countries started viewing the nuclear weapons as a deterrent force or in other words a safety valve, which would prevent any nuclear war and would thus ensure peace in the world. Lieber and Press (2006:7) say that by the early 1960s, the United States and the Soviet Union possessed such large and well-dispersed nuclear arsenals that neither could entirely destroy the other's nuclear forces in a first strike leading to a military stalemate known as MAD. They added that because of the MAD principle a nuclear war was seen as tantamount to a mutual suicide. This prevented breakout of any nuclear hostility between the two camps of the Cold War era and production of nuclear arms continued unabated in both U.S. and the Soviet Union.

Another, such novel idea was nuclear non-proliferation, which came to be attached with the nuclear disarmament movement. Countries like the U.S. wanted to prevent the spread of nuclear weapons to other states while maintaining their supremacy in the field of nuclear weaponry. Thus, to

prevent the proliferation of nuclear weapons to non-weapons states and maintain their own huge stockpiles, treaties like NPT were sponsored by nuclear weapon states in the Cold War era. This innovation, which purportedly was introduced to further the cause of nuclear disarmament proved to be an undermining factor as it did not lead to the final goal of complete abolition of nuclear weapons.

History of Nuclear Disarmament Movement

The end of the Second World War, which although was a moment for great rejoicing, also brought immense gloom to the world. The bombs that brought the war to an end simultaneously gave rise to the age of nuclear weapons in a world, that hadn't even recuperated from the devastations of the WW II. On the morning of August 6, an American plane dropped a nuclear bomb on a crowded street of Hiroshima without any warning and killed approximately 1,40,000 people, 95 per cent of which were the civilians (Wittner, 2009:8). Radiation poisoning took many more lives and left its deadly imprints on generations, which were yet to come. August 9 bombing of Nagasaki increased the toll by another 70,000. The bombings sent shockwaves around the world. Leaders and civil society members severely condemned these horrific and inhumane nuclear bombing of Hiroshima and Nagasaki. This horrific incident and global condemnation was followed by the birth of the global nuclear disarmament movement which in its nascent stage failed to curtail the nuclear arms race that had started between U.S. and the USSR with the advent of the Cold War era. This movement although had a long checkered history with many successes and many more failures but it still emerged as a strong moral force in a world, which increasingly came under the pressure of increasing stockpiles of nuclear weapons.

Wittner (2009:12) says that the that bombing of Japanese cities created a huge sensation in the U.S. and adds that except the pacifists and the religious leaders, the general public supported the bombing in the same way that they had earlier supported the war. Later, three schools of thought appeared in U.S. in response to the looming threat of a nuclear war with each suggesting a different response measure to tackle the same. Wittner says that the "World

Federalists” led by Norman Cousins and Robert Hutchins, who was the Chancellor of University of Chicago, suggested the establishment of a world government to deal with the nuclear threat and saw the former as the only alternative to nuclear annihilation. The World Federalists viewed the international control of atomic energy as an insufficient measure and wanted to strengthen the United Nations into a world government.

On the other hand, there was a group led by the scientific community of U.S. that viewed the setting up of a world government as only a long-term solution to the nuclear problem and the one that would take too much time to materialize. Instead they suggested that the nuclear energy should come under international control so as to free the world of the nuclear threat.

“Such international control would “buy time” until a world government could be put into place and, in addition, would provide a “first step” along the way. (Wittner 2009:14)

Thus, this group led by the scientists lobbied fiercely against Truman’s plan for U.S. military control of atomic energy and instead supported the Acheson-Lilienthal Plan and the Baruch Plan as both these plans called for international atomic energy control. Wittner says that although the two groups had a difference in opinion over the right way to stem the nuclear threat but still both worked closely with each other.

The Pacifists who came to prominence in the aftermath of the nuclear bombing formed the third pillar. This group squarely condemned both the use of nuclear bombs by the U.S. in Japan and the post-war development of nuclear weapons. According to Wittner, Pacifists had always been a vociferous critic of war and were less inclined than the scientists and the world federalists to focus on any particular kind of weapon or to view its development as a turning point in history. However, the unprecedented destruction caused by the nuclear weapons made them call for a total abolition of the nuclear weaponry. These three groups along with other minor groups emerged as the voice of nuclear disarmament in United States. Anti-nuclear bomb groups also became active in many other countries including Britain,

France and Australia. However, as Wittner (2009:22) says, it was less overt in Soviet Union and the Eastern Europe.

To understand the United States approach to nuclear disarmament, it is essential to first track down the initiatives taken by the U.S. government in the field of nuclear disarmament, although many observers have perceived the U.S. as one of the significant obstacles to the achievement of total nuclear disarmament (Rajagopalan, 2010:33). The history of nuclear disarmament and the numerous initiatives can be broadly divided into Cold War and post-Cold War period, which have been discussed at length in the underlying section.

Nuclear Disarmament in the Cold War Period

In the Cold War era, the goal of nuclear disarmament was always held hostage to the politics and hostilities between the two superpowers i.e. U.S. and the Soviet Union and their respective camps. The period was marked by unprecedented arms race between the two countries as both tried to outdo each other in the field of nuclear weapons. The realist perspective of putting the state security first supported this arms race further. Ideas like nuclear deterrence and non-proliferation became hyphenated with the nuclear weapons and the arms race that required each state to acquire more and more of these weapons. This period also witnessed a number of initiatives, which were taken to undermine the fear of a possible nuclear war that had gripped the world but these initiatives always fell short of the goal of total global nuclear disarmament.

Baruch Plan, 1946

In the direction of nuclear disarmament, the Baruch Plan was the first major initiative, which aimed at international regulation of nuclear weapons. Due to increasing criticism from the scientific community as well as general public, Wittner (2009:30) says that the Truman administration became increasingly embarrassed and defensive. A change in thinking pattern of US administration on nuclear weapons was increasingly becoming visible. The first signs became visible when in November 1945, the Truman-Attlee-King Declaration

was adopted by the leaders of the United States, Britain, and Canada that proposed to set up a commission under the U.N. to prepare recommendations “for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.” The declaration also said that the free exchange of nuclear information was desirable for peaceful purposes only and the three powers should restrict this exchange until an adequate control was established by the United Nations (Groves 1983:403).

This was followed by the Acheson-Lilienthal proposal, which according to Wittner was Truman’s administrations first concrete proposal in that direction. While Dean Acheson was the Under Secretary of the State, David Lilienthal was the chairman of the Tennessee Valley Authority. Both of them chaired a committee that suggested the creation of an Atomic Development Authority under the auspices of United Nations, which would maintain a monopoly over nuclear fissile material. The proposed authority would also oversee the distribution of the fissile material and the operation of facilities that had the capability of producing nuclear weapons. The Plan also called for the destruction of the current stockpile of the nuclear weapons and introduction of a licensing proposal for countries that were seeking peaceful nuclear energy capabilities. Suri (2010:21) says that they hoped that with licensing civilian use of nuclear energy could be encouraged which would then ensure its non-weapon use. According to Wittner (2009:31) the Acheson-Lilienthal Plan was a direct result of the new climate of thinking that had been fostered by the critics of the Bomb.

The framework of the Baruch plan emerged from the Acheson-Lilienthal proposal. Wittner says that while the Acheson-Lilienthal Plan represented the zenith of the disarmament movement’s influence upon American public policy, the adoption of a more traditional approach by the U.S. administration led to the formulation of Baruch Plan, which was presented by the U.S. to the United Nations Atomic energy Commission on 14 June 1946.

Truman appointed Bernard Baruch as U.S. representative to United Nations Atomic Energy Commission. Baruch was a businessman and a White House advisor and he brought many changes in the Acheson-Lilienthal proposal,

which were termed controversial by many observers (Suri, 2010:21). Wittner says that Baruch was deeply suspicious of the Soviet Plans and thus crafted a proposal, which according to him better served US interests than the Acheson-Lilienthal proposal.

According to Suri (2010:21) the Baruch plan called for more rigorous and intrusive regulation of all nuclear energy research and production – civilian and military- through the proposed Atomic Development Authority. The Plan also prohibited countries from developing any new nuclear weapons capability. In case of non-compliance the plan empowered the Atomic Development Authority to seize a country's national facilities and resources and also proposed elimination of UN Security Council's veto power in enforcement actions. Rydell (2006) says that the Baruch plan was more ambiguous on whether the Atomic Development Authority would actually own uranium and thorium mines but was more explicit about the various stages through which the controls would have to evolve before U.S. would give up its bombs.

This plan was rejected by the Soviet Union. According to Rydell, because of the Cold War, Soviet Union would not have accepted this plan as it not only proposed to take its veto power away but also deprive it of its option of acquiring nuclear weapons, and open its borders to intrusive international inspection. Suri says that if the Baruch Plan had been implemented then it would have essentially frozen the U.S. nuclear monopoly and prevented the development of Soviet capability. Naturally, this scenario would have been unacceptable to the Soviet Union.

As a consequence of this, Holloway (2010:378) says that it led to the decision that it would be the national governments that would determine the future of atomic energy instead of the international organizations. Many observers wondered that if the strict conditions, which were to be imposed under the Baruch Plan were the reason for its failure to materialize into a potent antidote against nuclear proliferation and if the original Acheson-Lilienthal proposal would have been more successful. Suri (2010:22) believes otherwise and says that since the Soviet Union had already embarked on their own nuclear

weapons development project so there was no hope of successful implementation of any of the two aforementioned proposals.

However, despite their apparent failures both the Acheson-Lilienthal proposal and the Baruch plan cannot be dismissed altogether. Suri says that the success of the two proposals lied in initiating an international dialogue on regulation of nuclear weapons, which finally culminated in the 1968 Nuclear Non-Proliferation Treaty. According to Wittner (2009:31) the Baruch Plan did constitute a serious nuclear arms control proposal and if it had been adopted it would have strengthened world authority through unprecedented limitations on national sovereignty. Wittner called the Baruch Plan an unproductive compromise between the new thinking and the old.

Open Skies Policy of Eisenhower

The nuclear arms race during the Cold War era was a direct outcome of the mutual fear and suspicion that defined the relations between the two super powers, U.S. and the Soviet Union. This fear had its origin in the 1945 nuclear bombing of Japan, which many observers (Bernstein, 1995; Holloway, 2010) interpreted as Truman's way to intimidate Soviet Union. Holloway (2010:376-377) says that Stalin also viewed the bombing as an anti-Soviet move to deprive the Soviet Union of strategic gains in the Far East and give U.S. an upper hand in the post-war settlement discussions and so, within two weeks, on 20 August 1945, he signed a decree setting up a Special Committee on the Atomic Bomb. This was the beginning of the nuclear arms race between the two countries. Any increase in nuclear arsenal by one country automatically made the other country to increase its own arsenal. This tendency of maintaining an upper hand in arms supremacy was both the outcome as well the reason for the growing stockpile of nuclear weapons between the two superpowers. Holloway (2010:379) says that the bomb made the postwar relationship more tense and contentious than it would have been in any case. He further adds that the nuclear bomb began to figure prominently in the United States policies as for the U.S., bomb provided a counterweight, in psychological and political as well as military terms, to Soviet military power in Europe.

In such an environment mutual mistrust compounded by rapid nuclear arms race, US sponsored another initiative to control the ongoing nuclear arms race. From 8 August to 25 August 1955, the First International Conference on the Peaceful use of Atomic Energy was held in Geneva, under the auspices of United Nations. This meeting had its origin in President's Eisenhower's speech at the UN General Assembly in 1953 where he put forward his proposal for "Atoms for Peace". Rydell (2006) says that Eisenhower's proposal called for a peaceful nuclear cooperation in exchange for safeguards over nationally operated nuclear facilities which was exactly what the earlier proposals had warned would not work.

Meanwhile, the public opinion around the world by then had already been shocked by the testing of the 'super bomb' or the Hydrogen Bomb by both the United States in 1954 and the Soviet Union in 1955. Holloway (2010:383) says that the testing of hydrogen bomb gave a huge push to anti-nuclear movements in United States, Britain and Asia and this shook the leaders of all three nuclear weapon states. Wittner (2009:52) says that beginning in 1954 there was renaissance in the global disarmament movement as the testing of H-bomb had revived the idea that humanity was teetering on the brink of disaster. Statements against the H-bomb were released by the leaders of all the three states criticizing the potential the H-bomb had in destroying the human civilization. The public outrage at the H-bomb testing was also loud and clear. Prominent individuals issued statements against the bomb and many anti-nuclear groups became actively involved in pursuing the goal of nuclear disarmament.

In this environment of threat and insecurity, the leaders of the most powerful countries decided to meet in Geneva to put a limit on the nuclear arms race. The most powerful leaders of the world, U.S. President Dwight Eisenhower, British Prime Minister Anthony Eden, French Prime Minister Edgar Faure and two Soviet leaders: Nikolai Bulganin and Nikita Khrushchev, met in Geneva on 18 July 1955 to discuss a control on the ongoing arms race. Eisenhower called for the adoption of policy of 'Open Skies' between the major powers, which according to him would allow the Cold War states to conduct open

surveillance of each other's territory.

Suri (2010:22) says that motivation behind this proposal was Eisenhower's belief that transparency would reduce irrational and exaggerated fears about enemy intentions and would therefore stabilize the international relations. This suggested solution to control the dreadful nuclear arms race that had been inflicted on the world by the two countries clearly aimed at directly attacking the fear and suspicion that guided the relations between the two countries. Holloway (2010:384) says that Eisenhower made a special effort to impress upon the gathered leaders the terrible consequences of a nuclear war, pointing in particular to the danger of nuclear fallout. However, the Soviet leaders rejected this proposal because, as stated by Suri (2010:23), they were unwilling to reduce the secrecy in their society.

However, the 1955 Geneva Conference proved to be significant in many different ways. First of all, it brought together the leaders of most powerful countries together for the first time since the Potsdam Conference of 1945. Secondly as Holloway says all the leaders returned from the Conference encouraged and with a mindset that nuclear arms race was not only "practically race suicide" but also that it was borne out of mere fear and misbelief in its power as a deterrent.

"By the mid-1950s the political leaders of each of the nuclear states understood that nuclear war was unacceptable in some profound, if ill-defined, way. Each of them knew that the others understood this too, and each of them knew that each knew that the others understood it." (Holloway, 2010:384)

Suri (2010:23) says that Eisenhower's proposal for 'open skies' became a practical reality in a decade when military aircraft reconnaissance and satellite programs made overhead transparency possible. He adds that both the US and Soviet Union/Russian leaders in fact returned to Eisenhower's proposal in their later discussions on nuclear arms control that called for greater overhead transparency to reduce the suspicion factor.

However, it is important to point out here that despite widespread criticism,

threat of use of nuclear weapons continued to figure prominently in the military doctrine of United States. Wittner (2009:53) says that in a press conference on March 16, 1955, Eisenhower declared that in a battlefield situation, the U.S. government would employ tactical nuclear weapons “just exactly as you would use a bullet or anything else.” The US National Security Council (NSC) also had made it clear in 1953 that in an event of war with either USSR or China, US would not shy away from using nuclear weaponry (Wittner 2009:53). In the meanwhile an anti-disarmament lobby continued to grow stronger around the world.

Limited Test Ban Treaty (LTBT), 1963

The radioactive pollution in the form of radioactive ash and debris caused by the nuclear weapon explosion had been a major source of anxiety for the world community. Both U.S. and Soviet Union had been carrying out a number of tests to determine the effectiveness, yield as well as overall explosive capability of their nuclear weapons. This continued testing of nuclear weapons not only worsened the nuclear arms race between the two rivals but was also proved to be damaging to the overall global environment.

According to Wittner (2009), the realization of this dangerous fallout of nuclear testing only dawned on the public in 1954, when certain missteps in the testing process of H-bomb by the U.S. administration led to radioactive poisoning of certain pockets of population. The incident involved the testing of a Hydrogen bomb at Bikini atoll, in Marshall Islands, which proved to be twice as strong than predicted and led to huge generation of radioactive debris, which finally descended on four inhabited islands of the Marshall group.

The issue came under greater international scrutiny when radioactive ash was reported about 85 miles away from the test site and crewmembers on a Japanese fishing boat, *Lucky Dragon*, reported radioactive poisoning. Mastny (2008:5) says that the nuclear tests were also unexpectedly disruptive as the July 1962 detonation of a U.S. nuclear device 280 miles above the Pacific led to extensive power and communications failure in Hawaii. The supporters of

the disarmament movement took this up a common rallying point calling for a ban on further testing on nuclear weapons. However, both the superpowers in their mindless pursuit for nuclear supremacy kept up with the nuclear tests all through the Cold War and the campaigners gained only a partial success when U.S. and the Soviet Union signed the Limited Test Ban Treaty (LTBT) in 1963. The treaty banned testing of nuclear weapons in the atmosphere, underwater and the outer space but allowed underground testing.

The data below lists down the nuclear tests conducted both underground and in the atmosphere by U.S. and the Soviet Union from 1945 onwards to 1962.

Table 1: Comparison between U.S. and Soviet Union of Nuclear Tests, 1945-1962

Year	United States		Soviet Union	
	A	U	A	U
	<i>A = atmospheric; U = underground</i>			
1945	1	0	0	0
1946	2	0	0	0
1947	0	0	0	0
1948	3	0	0	0
1949	0	0	1	0
1950	0	0	0	0
1951	15	1	2	0
1952	10	0	0	0

1953	11	0	5	0
1954	6	0	10	0
1955	17	1	6	0
1956	18	0	9	0
1957	27	5	16	0
1958	62	15	34	0
1959	0	0	0	0
1960	0	0	0	0
1961	0	9/1*	58	1
1962	39	55/2	78	1

(Source: Archive of Nuclear Data from

NRDC's Nuclear Program)

Thus, nuclear test explosions continued unabated all through the 1950s and between 1953 and 1958, the United States and the Soviet Union, along with the United Kingdom, held a total of 231 atmospheric tests (Burr and Montford 2003). It was only in the last two years of the decade i.e. 1959 and 1960 that both the countries declared a unilateral moratorium on nuclear testing in wake of growing global activism against nuclear testing.

The growth of an anti-nuclear stance was strong in U.S. as well. Groups like SANE (Committee for Sane Nuclear Policy) and WSP (Women Strike for Peace) emerged as active anti-nuclear groups in the U.S. calling for a ban on future nuclear testing. The political circles were also abuzz with an anti-testing sentiment. Burr and Montford (2003) say that Adlai Stevenson, the Democratic Party's presidential candidate in 1952 and 1956, took a strong

position in favor of a test ban. The authors add that even Eisenhower was also personally interested in halting the nuclear tests but difference in opinion within his administration undermined his efforts and the administration remained in favor of further nuclear testing.

However, US was finally pushed to the wall and forced to change its position when Soviet Union in 1958 declared a unilateral halt on any further testing. The Soviets had earlier called for an American-British-Soviet moratorium on nuclear testing. According to Wittner (2010:80), this announcement not only produced enormous propaganda success for Soviet leaders but was also successful in embarrassing the U.S. administration. Eisenhower was soon made to declare that although the new nuclear weapons were tremendously powerful but they weren't as powerful as was the world opinion, which had obliged the United States to follow certain lines of policy. Thus, on 31 October 1958, US also declared a unilateral moratorium on further nuclear testing. Simultaneously, the heads of United States, USSR and Britain also decided to begin test ban negotiations in Geneva to make the moratorium permanent in nature. However, the negotiations proved to be both "difficult and protracted" (Burr and Montford) and could only be completed in 1962 as the issue of verification continued to plague the negotiations. Burr and Montford say that U.S. consistently pushed for on-site verification, as the U.S. policy thinking believed that it was a way to open up Soviet society to "qualified observers". However, the Soviets were opposed to any such kind of verification. The unilateral moratorium on nuclear testing also did not last for long as the Soviets conducted another nuclear test in 1961.

A new lease of life was given to the anti-nuclear test negotiations when the Kennedy administration replaced Eisenhower's government in 1961. Many observers including Wittner believed that the Kennedy administration was far more receptive than the previous one. Burr and Montford say that one of Kennedy's central motives in seeking a test ban treaty was to check the proliferation of nuclear weapons. The proliferation of nuclear weapons was becoming a major issue of concern for both the superpowers. China had already commenced on its nuclear weapons program, which was being seen as

a major security threat to US. Thus, the Kennedy administration appeared to be more forthcoming than Eisenhower in the test ban negotiations. On the other hand, Soviets were concerned about West Germany's growing nuclear capability as well as US's proposal to establish a sea-based nuclear force with its European allies called as the Multilateral Force (MLF). Burr and Montford say that dominant belief was that with a comprehensive test ban in place countries would face greater international pressures not to test and the possibility of detection could deter cheating.

The Cuban missile crisis of 1962 further triggered the fear of a nuclear war although Mastny (2008:6) says that the peaceful resolution of the crisis has retrospectively been judged as having created the best conditions for détente since the onset of the Cold War. Finally, an agreement was reached between US, Britain and Soviet Union by July 1963, which led to the birth of the LTBT. Later, 108 countries signed the treaty with the major exceptions being France and China.

Nuclear Non-Proliferation Treaty (NPT)

Before tracking the development and the acceptance of the nuclear non-proliferation regime in the world it is essential to understand the term itself and its relation with the nuclear disarmament movement.

The prevention of spread of nuclear weapons and technology associated with its manufacturing to non-nuclear weapon states is termed as the nuclear non-proliferation. The non-proliferation regime includes a set of norms, rules and practices that prevents the spread of nuclear materials, weapons and technology to non-nuclear weapon states and thus prevents them from falling into some irresponsible hands. Perkovich and Choubey (2010:13) say that the great destructive power of nuclear bomb which became apparent after 1945 Hiroshima bombing persuaded the leaders around the world to constrain that power and from this the goal of nonproliferation as well as search for nonproliferation regime was born.

It has been long recognized that for nuclear disarmament to become a reality proliferation of nuclear weapons and technology needs to be controlled and aptly supervised. However, efforts for achieving both these goals i.e. gradual disarmament and nonproliferation need to be complimentary in nature, as one cannot be achieved without the other. According to Perkovich and Choubey (2010:15) the relationship between nuclear disarmament and nonproliferation remained crucial since if existing nuclear weapons state did not reduce their arsenals, then key non-nuclear weapon states would likely resist stronger nonproliferation rules, as had happened in the case of much publicized Nuclear Nonproliferation Treaty (NPT). On the other hand, if stronger nonproliferation rules are not devised and implemented then nuclear disarmament would always remain a distant goal. Thus, for a nuclear free world there is a need for greater tandem in the efforts for nuclear disarmament and nuclear nonproliferation. This was well recognized by President Obama as well in his now famous Prague speech.

However, there exists another school of thought that views any complimentary relationship between nuclear nonproliferation and nuclear disarmament with some skepticism. Arbatov (2011:69) says that many refute the interconnection between nuclear disarmament and non-proliferation by the argument that the new members and candidates to the nuclear club are guided by their own interests and do not care about nuclear disarmament of the great powers, or, rather feel encouraged to acquire nuclear weapons, viewing nuclear weapons as a shortcut to equality with the 'big five'.

From a theoretical perspective, the realist school of international relations has been a dominant school since the 1950s, which believes the acquisition of nuclear weapons as a rational decision on the part of the state to protect itself and its interests from external threats. This thought has a direct bearing on the nuclear disarmament and nuclear nonproliferation relation as Demarest (2012:3) says that it would mean that disarmament would cause proliferation because it undermines the security of nuclear powers' allies. Demarest says that during the cold war proliferation remained limited since US and Soviet Union could provide security to their allies, which was not the case after the

end of the Cold war and this led to greater proliferation after 1990s. Further, acquisition of nuclear arms is also seen as a response to conventional military power of adversaries and it was one of the reasons why North Korea and Israel have been developing nuclear capability. Thus, nuclear disarmament will not prevent nuclear proliferation from occurring as conventional weapon superiority can also trigger nuclear arms race.

As a counter argument, idealists argue that it would be naïve to consider that non-nuclear weapon states will accept the nuclear status of the other states indefinitely. Perkovich and Choubey (2010:13) say that like the nuclear weapon states cannot be forced to give up their weapons in the similar manner the non-nuclear weapon states cannot be forced to give up the right to build up their own. The authors add that only a mutually agreed non-proliferation rules that satisfy the core interests of the 'have-nots' states and tolerate, at least temporarily, the possession of nuclear weapons by some state can help in realization of nuclear free world.

“The nuclear weapon states shape the security situation of potential proliferators and even a conventional threat from a nuclear power will always contain an implicit nuclear threat. They also project the use of a nuclear capacity in their doctrines and strategies and turn nuclear weapons into status symbols. In this line of thinking nuclear disarmament can prevent the spread of nuclear weapons by diminishing the influence of the nuclear capacity of some states on others.” (Demarest 2012:4)

In 1968, the first serious attempt at nuclear non-proliferation was made in the form of NPT, which combined both the ideas of disarmament and non-proliferation in a mutually reinforcing manner. The NPT came into force in March 1970. Perkovich and Choubey (2010:13-14) say that the NPT on one hand made nuclear weapon states promise to pursue nuclear disarmament in good faith and not transfer either weapons or the technology to non-nuclear weapon states, on the other hand, it made the non-nuclear weapon states promise to not to acquire nuclear weapons. The regime also recognized the 'inalienable right' of the non-nuclear weapon states to access nuclear energy for peaceful purposes.

The success of NPT as an arms controlling regime remains a matter of debate with some terming it as a success considering it was one of the most universal treaty (Perkovich and Choubey (2010:14), many others view it as a failure considering three states with nuclear weapons did not even join NPT (India, Pakistan and Israel) and North Korea later withdrew from it making it the first country to develop nuclear weapons despite its NPT obligations. Johnson (2010:18) says that although the NPT had an enormous normative influence, but its Cold War genesis had left it with weaknesses that made it difficult to strengthen the NPT's structure and implement powers sufficiently to prevent the spread of nuclear weapons and materials to governments and terrorists. Miller (2012) says that NPT has had an oddly schizophrenic history as one hand it has had its successes like having nearly universal membership and being durable and resilient in the four challenging decades of the Cold War and also helping in preventing the widespread proliferation of nuclear weapons; on the other hand, it has been chronically troubled by crisis and setbacks and possible defections, amidst fears for its future and doubts about its adequacy.

However, significance of NPT should not be underestimated. The NPT for the first time clearly laid out instructions for achievement of global nuclear disarmament in its Principles and Objectives section, which comprised of three basic elements. These included, firstly, to conclude CTBT (Comprehensive Test Ban Treaty) whose negotiations were concluded successfully with a treaty in 1996; secondly, to negotiate a treaty to cap the military production of the fissile material such as plutonium and highly enriched uranium which laid the base for the FMCT (Fissile Material Cut-off Treaty) which is still under negotiations; and lastly, to pursue systematic and progressive efforts to reduce nuclear weapons globally with the ultimate aim of eliminating those weapons.

SALT 1 and 2

The Strategic Arms Limitation Treaty (SALT 1) was the first arms control treaty, which expressly limited the construction of new nuclear weapons.

Signed by US President Richard Nixon and Soviet leader Leonid Brezhnev in Moscow on May 26 1972, the treaty froze the number of strategic ballistic missile launchers at the existing levels and provided that new submarine-launched ballistic missile (SLBM) launchers could be added only when same number of older intercontinental ballistic missile (ICBM) and SLBM launchers had been retired. SALT 1 treaty later culminated into ABM (Anti-Ballistic Missile) Treaty, which limited the superpowers to no more than two antiballistic missile sites in their respective countries. Suri (2010:23) says this treaty aimed to assure that neither side could hope to protect the majority of its population from a nuclear attack. Thus, the logic of nuclear deterrence was applied here. Garthoff (1977:5) says that the overall Soviet approach to SALT differed from that of the United States in a significant respect. While the Soviets wanted an overreaching, general, politically meaningful accord, the US wanted a more militarily meaningful arms control measure. Thus, the Soviets adopted a more conciliatory approach towards the negotiations as opposed to that of US. Suri (2010:23) says that SALT 1 became a centerpiece of a 1970s détente that featured greater East-West scientific, economic and cultural cooperation.

Later, SALT II followed SALT 1, which was signed in 1979 by U.S. President Jimmy Carter and Soviet leader Brezhnev. The two leaders held a series of discussions from 1972 onwards till 1979 and it was focused more on the quantitative limits. The SALT II Treaty limited each side to a total of 2,400 strategic nuclear launch vehicles. Within this ceiling no more than 1,320 ICBMs, SLBMs could be deployed. However, US Senate never ratified it due to Soviet invasion of Afghanistan in 1979. Suri (2010:23) says that Reagan who succeeded Carter continued to abide by the pledges of the non-ratified SALT II although as Kartchner (1992) says that Reagan had been a long-time critic of the SALT. Reagan's approach to START was based on the premise that the SALT approach to arms control had failed to restrain the emergence of the threat of Soviet Union acquiring first-strike capability for destroying US land based strategic forces. This finally paved the way for the Reagan's important dialogues with his Soviet counterpart in 1980s.

Reagan-Gorbachev Dialogue 1980s

The Reagan-Gorbachev dialogue changed the course of the disarmament struggle in the world. Reagan never had been a strong supporter of the disarmament movement. In fact Reagan had long been a staunch critic of all the arms control treaties that had been negotiated between U.S. and the Soviet Union. Kimball (2004) says that throughout the 1970s, Reagan had always argued that United States was falling behind the Soviets in the nuclear competition and that U.S. long-range ballistic missiles were becoming increasingly vulnerable to Soviet attack. Kimball says that when Reagan became the president he accelerated the strategic nuclear modernization plans and launched many efforts to build a national missile defense system through his Strategic Defense Initiative (SDI). This became another source of friction between US and the Soviet Union.

Wittner (2009:182) says that the government resistance to nuclear disarmament effort began to diminish after March 1985 when Mikhail Gorbachev became the Soviet party secretary. Gorbachev brought a whiff of fresh air to the conflict-prone US-Soviet relations and called for a “new thinking”. In fact Gorbachev did practice the rhetoric of “new thinking” when he announced reduction in number of SS-20 missiles in Europe, refused the development of a similar Soviet SDI program and declared a moratorium on nuclear testing (Wittner 2009:183). These positive gestures from the Soviet Union had a positive influence on the policies of the Reagan administration as well. Reagan, as Wittner says, being sensitive to the spirit of the time, called for a Summit level conference with Soviet Union in Geneva. According to Kimball (2004) Reagan’s early opposition to U.S.-Soviet arms control negotiations gradually gave way to a more conciliatory approach as he was increasingly concerned about the threat of MAD.

However, the Geneva Summit failed to yield any positive result. The only silver lining was that both the leaders expressed their desirability of a cut down in nuclear weapons stockpiles. At the end of the Summit Reagan also made his now famous statement, “a nuclear war cannot be won and must never be fought”. Kimball says that the Geneva meeting brought a new note of

civility to superpower relations although the meeting failed to achieve any immediate results and both sides continued to advocate radical, presumably non-negotiable, solutions to the nuclear dilemma. As a follow up to the Geneva Summit, the two leaders met at Reykjavik in Iceland in 1986. After a series of meetings and a number of agreements and disagreements the two sides eventually concluded the landmark Intermediate-Range Nuclear Forces (INF) agreement in 1987. The treaty eliminated nuclear and conventional ground-launched ballistic and cruise missiles with intermediate ranges. The meeting between the Reagan and Gorbachev administration also laid the foundation for an arms reduction treaty, which was signed between Gorbachev and President George H.W. Bush in 1991 in the form of the Strategic Arms Reduction Treaty 1 (START 1).

Nuclear Disarmament in Post-Cold War Period

The end of Cold War brought a much-needed cheer to the campaigners of global nuclear disarmament. The end of the super power rivalry and the related need of nuclear weapons made the observers hope that the end of the dreadful nuclear arms race was near. In fact a number of agreements and treaties also came into effect after 1991, which aimed at reducing the nuclear arsenal of both U.S. and Soviet Union but these always fell short of the expectations of the proponents of world free of nuclear weapons. Only a lack of the political will and national security considerations could explain the failure in the achievement of complete elimination of nuclear weapons in the post-Cold War period. In fact the grim reality of the post-Cold War period was that the number of states in possession of nuclear weapons also increased. Despite this failure, there have been a number of significant milestones in the field of global nuclear disarmament during this period, which have been discussed in the following section.

START 1 and 2

The START 1 or Strategic Arms Reduction Treaty had its genesis in the Reagan-Gorbachev dialogue that took place in 1980s. President Reagan who had been a long-time critic of the SALT agreement between US and Soviet

Union had termed the SALT II as “fatally flawed” and said that it opened a “window of vulnerability” for U.S. that could compromise American interests in the future. Kartchner (1992:19) says that Reagan’s approach to the START was both revolutionary and highly experimental in nature as deep cuts in offensive forces, new counting rules discriminating between slow-flying bombers and fast-flying missiles and intrusive verification provisions were all part of Reagan’s package. The first START agreement was signed on 31 July 1991 by US President George H.W. Bush and the Soviet leader Mikhail Gorbachev and it sought to equalize the size of nuclear arsenals of both the countries accompanied with reduction in existing nuclear weapons and delivery systems. Both US and Soviet Union decided to maintain not more than 1,600 strategic nuclear delivery systems and reduce the respective nuclear arsenals to 6,000 strategic warheads each, out of which 4,900 could be placed on ballistic missiles. Thus, START 1 ensured deep cuts in the nuclear stockpiles of both the countries. The treaty came into force on 5 December 1994 for a period of 15 years. The START II Treaty was signed on 3 January 1993 and it further reduced the number of strategic nuclear warheads to be held by each party on 1 January 2003 to no more than 3,500.

Comprehensive Test Ban Treaty (CTBT)

The issue of ban on nuclear testing has been a recurring issue of discussion in the disarmament circles, which achieved only limited success in the 1963 in the form of LTBT that was signed between US and Soviet Union. Although after the 1963 Treaty the number of nuclear tests conducted in atmosphere came down to zero the underground tests continued to take place and this sustained the nuclear arm race between the two superpowers. Thus, the campaigners for total nuclear disarmament started clamoring for a more comprehensive ban on nuclear testing. Countries like U.S. and Russia also realized the need for further ban on nuclear testing so as to prevent both the spread of nuclear weapons as well as the upgradation of their nuclear weapon systems by countries like India and China. Thus, there were constant efforts in this direction although they always fell short of a complete ban on nuclear testing. For example, the Threshold Test Ban Treaty, signed in 1974, banned

underground nuclear weapons tests having an explosive force of more than 150 kilotons which is 10 times the force of the Hiroshima bomb. The Peaceful Nuclear Explosions Treaty, signed in 1976, extended the 150-kiloton limit to nuclear explosions for peaceful purposes. However both were ratified only in 1990 by the US administration. Medalia (2011) says that instead of ratifying these treaties President Carter chose to negotiate a total ban on nuclear testing. However, the concern that testing would be required not only to check the reliability of the current weapons but also to develop new weapons constantly undermined the efforts.

The end of the Cold War in 1991 revived the calls for a comprehensive ban on nuclear testing as with the end of the Cold War, as Gallagher (2006) says, the fundamental obstacle to CTBT had been removed. Russia and France also declared a unilateral moratorium on further nuclear testing. As a reaction to this, US adopted Hatfield-Exon-Mitchell amendment to the FY1993 Energy and Water Development Appropriations Bill, which banned testing before July 1, 1993, set conditions on a resumption of testing, banned testing after September 1996 unless another nation tested, and required the President to report to Congress annually on a plan to achieve a CTBT by September 30, 1996 (Medalia, 2011). Finally, after much deliberation at the Conference on Disarmament, the U.N. General Assembly adopted CTBT on September 10, 1996 and it was opened for signature on September 24, 1996. The treaty prohibited any nuclear weapons test explosion and also established a global verification network with on-site inspections to monitor compliance of signatory states. However, the Treaty could not come into force, as the required number of countries did not ratify it. Even US shied away from ratifying the treaty although subsequent U.S. Presidents kept promising of getting the required Senate approval to the Treaty.

The Bush administration was specifically opposed to the CTBT regime and Condoleezza Rice as the Secretary of State made it amply clear when she declared that the Administration did not support the CTBT and did not intend to seek Senate advice and consent to its ratification. Thus, CTBT remained stuck in a limbo all through the Bush presidency. Finally, it was Obama who

revived the CTBT regime and committed its ratification in his famous Prague speech where he promised to pursue the ratification of CTBT both “immediately and aggressively”.

Strategic Offensive Reduction Treaty (SORT) 2003

The Strategic Offensive Reductions Treaty (SORT), which is also known as the Treaty of Moscow was another arms reduction treaty that was signed between United States and Russia in 2002. It remained in force till 2011 after which it was superseded by another arms reduction agreement called the New START. The treaty signed between U.S. President George W. Bush and President Vladimir Putin mandated the two countries to reduce their operationally deployed nuclear weapons to between 17,000 and 2,200 warheads by 31 December 2012. According to Collina et al (2010) the SORT did not require the destruction of delivery vehicles as START I and II required or the destruction of warheads as was envisioned for START III, which never could materialize into a treaty. SORT also allowed both the countries “freedom to mix” land-based, sea-based and air-launched nuclear weapons (Cimbala 2003).

According to Congressional Research Report (2011) the objectives of Russia and United States were very different when they entered into the negotiations. While Russians sought a legally binding treaty that would have similar counting and elimination rules and verification procedures like the earlier START I and II, the United States was wary of concluding any formal treaty. Also, while Russians wanted a limit on United States’ missile defence program under the treaty, U.S had no intention to relent on this clause. Finally, after much of wrangling and months of negotiations SORT was signed on 24 May 2002.

However, critics criticized the SORT for absence of provisions for elimination of delivery vehicles and warheads. Santoro (2012:14) says that unlike

START, SORT was vague about what reductions should be made and how they should be made, sets on limits on how many warheads could be kept in storage and contained no verification measures. Many also criticized the treaty for lacking any provisions for reducing non-strategic nuclear weapons.

The “Group of Four”

After years of neglect and antipathy by the Bush administration, the global disarmament movement received a major push by a series of articles by four former US statesmen that were published in 2007 and 2008. These two op-eds that had put the issue of nuclear disarmament back on the agenda of the US administration in the post-Cold War era were written by the former U.S. Secretaries of State George Shultz and Henry Kissinger, former Defense Secretary William J. Perry, and former Senator Sam Nunn in the Wall Street Journal. Termed as the ‘Group of Four’, these four men called for a world free of nuclear weapons, which got widespread support from the governments of Great Britain, Italy, Germany, and Norway. In addition to this, a ‘Global Zero’ initiative was launched in 2008 in Paris in the response to these articles.

In the first of their article which was published on 4 January 2007 the four termed the doctrine ‘mutual Soviet-American deterrence’ that had once supported the relevance of nuclear arms race in the Cold War era as obsolete and declared that any reliance on nuclear weapons in post-Cold War era had become increasingly hazardous and decreasingly effective. The authors expressed their fear over the possible acquisition of nuclear weapons by the enemy states as well non-state actors like terrorist groups and warned that this could be dangerous for America’s security interests.

This led to a flurry of responses from a number of experts who expressed their satisfaction at the adopted stance of these four former statesmen. Gorbachev also published an article in the same newspaper supporting the views of the “Group of Four” and wrote there was a need to put the goal of eliminating nuclear weapons back on the agenda, not in a distant future but as soon as possible.

In another article published by the “Group of Four” in The Wall Street Journal on 15 January 2008 the four again warned of the non-state actors acquiring the nuclear weapons and wrote that the world had reached a nuclear tipping point with the fast dissemination of nuclear weapons, nuclear know-how and nuclear material and there was a real danger of these falling into dangerous hands. They even suggested a number of steps that could be taken by the respective countries to control the spread of nuclear weapons.

The views of these four found an echo in the Obama’s call for a world free of nuclear weapons during his Prague speech in 2009. Thus, the “Group of four” succeeded in putting the nuclear disarmament issue back in the agenda of policymakers around the world.

Definition, Rationale and Scope of the Study

There has been an intense ongoing debate over the issue of nuclear disarmament. The success in terms of tangible reductions in the arsenals maintained by the nuclear powers has been moderate at best. President Obama’s initiative towards the aim of achieving ‘Global Zero’ has provided a renewed thrust to the efforts for nuclear disarmament. In this regard the proposed study would attempt to contextualize the Obama initiative within the historical nuclear disarmament debate.

Research Questions

- Is Obama’s proposal for achieving global zero driven by national security interests or for achieving the larger goal of nuclear disarmament?
- How is President Obama’s approach different from the policies followed by the earlier US administration?
- Is Nuclear Posture Review 2010 a significant departure from the previous review?

- Does United States' superiority in conventional weapons act as a roadblock in achievement of Global Zero?

Hypotheses

- President Barack Obama's "global zero proposal" has not substantially altered the U.S. position/policy on nuclear weapons.

Research Methodology

The study would be analytical in nature looking into various ideas and policies that have influenced the nuclear non-proliferation and disarmament debate. The study would use both primary and secondary sources. The primary sources include government documents, official statements and reports. The secondary sources include books as well as articles published in various journals and newspapers. The study will also consolidate the major debates regarding nuclear disarmament. The study will also try to look at it from a theoretical perspective.

Chapterization

In the first chapter, the study will focus on the issue of nuclear disarmament and the various efforts undertaken by the US in this direction, post 1945.

The second chapter, *Current American Domestic Debates on Nuclear Disarmament*, will focus on the debates in the US policy circles and the academic community on nuclear disarmament.

The next chapter, *Obama's Global Zero Proposal: U.S. Motivations and International Reactions*, will focus on Obama's policy on nuclear disarmament with special emphasis on Global Zero. The chapter will further analyze the various international reactions to Obama's call for Global Zero.

The final chapter will summarize the findings of the study in the context of the research questions and hypotheses that were earlier propounded in this chapter.

CHAPTER 2

Current American Domestic Debates on Nuclear Disarmament

INTRODUCTION

In the previous chapter a brief history of the nuclear disarmament movement since the dawn of nuclear era up to the famous Prague speech of President Obama has been elaborated. The chapter focused on highlighting the major milestones that were achieved in the direction of nuclear disarmament with the efforts of various leaders, organizations and anti-nuclear weapons groups. Since the majority of nuclear weapons were owned by the U.S. and Russia, therefore the efforts made in the direction of nuclear disarmament by these two countries hold special significance and thus have occupied a lion's share of the discussion.

The current chapter will focus on the debates in the U.S. regarding nuclear disarmament and its requirement in the current global order. It cannot be denied that nuclear weapons constitute one of the key components of the U.S. security apparatus. The critical value that has been attached to the nuclear weapons makes the issue of disarmament a complicated one, especially for the U.S. as the nuclear weapons have been a continuous feature in the latter's security agenda since the start of the Cold War era. Therefore the disarmament issue has been a source of anxiety in the defense establishment of the country. Farley (2010) says that the cold war mentality is deeply ingrained in these institutions comprising of the Pentagon, the State Department and the uniformed military services and thus any change in the policy towards nuclear weapons would lead to a bitter institutional resistance against it. There is no denying the fact that nuclear weapons, since their introduction have been successful in deterring any attack against the U.S. by a hostile country. Most military and foreign affairs analysts of the country also agree that such weapons have been important to the U.S. world position since 1945 (Jervis,1989). That is why there are concerns and debates in the country

about the implications of nuclear disarmament on the security of the United States, the issue of non-proliferation and its link with disarmament, the importance of nuclear weaponry in the U.S. security structure and the present relevance of nuclear weapons vis-à-vis conventional weaponry.

The American political and academic circles are abuzz with these debates related directly or indirectly to the issue of nuclear disarmament. In this chapter the focus will be on the following four debates:

1) Deterrence Vs. Disarmament: The debate in policy circles is about what should have precedence? Should the US commit itself to nuclear disarmament completely and give up its policy of maintaining nuclear deterrence against a possible nuclear attack. The 'Group of Four' as discussed earlier, stressed on the continuing relevance of deterrence with regard to threat from other states but pointed out that reliance on nuclear weapons for purpose of deterrence was becoming increasingly hazardous and decreasingly effective in the current world order. However, they advocate retention of a safe, secure and reliable nuclear stockpile by the US primarily to deter a nuclear attack and to reassure allies through extended deterrence, as long as nuclear weapons continue to exist.

The other side to this debate sees nuclear deterrence incompatible with nuclear disarmament. It stresses that as long as the US maintains a minimum reliable nuclear deterrence, nuclear disarmament cannot be achieved as other countries would continue to view the US with suspicion and would be unwilling to part with their own nuclear stockpile. Thus, it would become difficult to check activities of states like Iran and North Korea which would continue to work on their nuclear program till the US and other countries maintain their nuclear stockpile even though in the name of minimum deterrence. Perkovich and Acton (2009) are also worried about the transition period leading up to total nuclear disarmament which could witness states like Japan and North Korea going nuclear in the transition to zero phase in order

to achieve national security in the wake of the uncertainty generated from the removal of the US cover.

This tense relationship between nuclear deterrence and nuclear disarmament is one of the most contentious issues for the Obama administration, visible even in Obama's speech at Prague, where despite calling for a world free of nuclear weapons, Obama stressed on maintaining a credible deterrence.

- 2) **Nuclear weapons versus the conventional weapons:** The second debate in US policy circles is regarding the strategic advantage of nuclear weapons in the current world order. The US military sees nuclear weapons as useful in exerting influence abroad and also protecting America's allies. However, with the minor states also acquiring the nuclear weapons the effectiveness of nuclear weapons in being a strategic advantage is being challenged. Paul Nitze, in calling for US's unilateral nuclear disarmament, is of the opinion that America could easily achieve its objectives through its conventional weapons, which were far more superior than those of any other country. Consequently, in a nuclear weapon free world, America would be able to easily utilize its conventional weaponry to achieve its objectives, as not many countries would be able to match U.S.'s capability in conventional weapons. However, this argument has also been challenged on the ground that countries will not easily part with their nuclear weapons even if U.S. declares unilateral nuclear disarmament as conventional weapons of the U.S. offer a sufficient threat to these countries and they would not let U.S. have a free reign in using its formidable conventional weapons capability to intimidate them. Thus, both controls on the conventional arms as well as nuclear arms were required.

3) Importance of nuclear weapons to U.S. security: In the policy community there is no clear cut consensus over the importance of nuclear weapons for US's security. One group believes that nuclear weapons retain a Cold War era-like importance and that deterrence is still as relevant as it was in the Cold War era. Thus U.S. should develop new nuclear capabilities to deal with any new future nuclear threats. On the other extreme is the group that sees nuclear weapons as a threat to humanity, which should be destroyed immediately. To achieve this purpose, the 'nuclear abolitionists' support deep unilateral reductions in the U.S. nuclear arsenal and oppose any nuclear modernization. In between these two extremes are two other points of view. One believes that nuclear weapons still play a significant role and so a reliable nuclear deterrent needs to be maintained, however no new capabilities should be developed. The other one believes that U.S. nuclear weapons continue making residual contributions to U.S. security as long as there are other nuclear-armed states. They believe that this can be accomplished with a significantly smaller stockpile.

4) Pre-emptive nuclear strike capability versus No first use policy: While the US government retains the right to pre-emptive nuclear strike against non-nuclear attacks by any nuclear armed states or states that US deems to be in violation of its NPT obligations (Nuclear Posture Review 2010), scholars like Scott Sagan call for adoption of a no first use policy by the United States. In the NPR 2010 the priority given to nuclear weapons is lowered however it still remains an important element in the US strategic thinking. It should be noted that from the strategic point of view the strategy is not markedly different from the previous governments. Critics say that this makes achievement of global zero a difficult aim to achieve. Without the 'no first use' policy states are bound to feel insecure of United States.

These four aforementioned debates are now further discussed in much detail along with the positions of various academic and political experts and decision makers on them.

THE DEBATES

Disarmament Versus Deterrence

Disarmament has been discussed in detail in the previous chapter. Before discussing the debate between disarmament and deterrence, a brief explanation of the concept of deterrence from a theoretical perspective along with its role in the U.S. security policy is given in the underlying section.

What is Nuclear Deterrence?

Nuclear deterrence was the dominant concept during the Cold War, which was based on the premise that an adversary could be deterred from launching a nuclear attack over one's country if it was assured of facing a retaliatory action of equal degrees. In simple terms it means to prevent an action from occurring by evoking the fear of the consequences of that action. Goodpaster et al (1997:13) says that deterrence is commonly thought about in terms of convincing opponents that a particular action would elicit a response resulting in unacceptable damage that would outweigh any likely benefit. Buzan (1987:174) says that deterrence is 'the dissuasion of one adversary by another from undertaking hostile military action by convincing him that such an action would be unsuccessful or too costly since it would incur military counteraction'. On the other hand, Wilson (2008:421) says that nuclear deterrence relies on the "shock and awe" strategy i.e. threatening to devastate enemy cities in order to coerce.

The roots of the deterrence theory lie in the Realist school of thought, which is state centric in nature and where the security of the state is the primary concern. According to realism, if power is equally distributed amongst the states then it leads to a balance of power as none attacks the other in fear of an equal retaliatory action and thus ensuring peace. This forms the basis of the deterrence theory whose aim has always been to put the fear of suffering

unacceptable consequences in the adversary if it takes certain hostile actions which ultimately prevents any breakout of conflict between the states.

However, many a times deterrence gets equated with defense which is not the correct interpretation of the concept of nuclear deterrence. According to Kenneth Waltz, deterrence is achieved not through the ability to defend, but through the ability to punish (Sagan & Waltz, 1995:3). Goodpaster et al (1997:13) say that deterrence is not simply a cost/benefits calculation but a dynamic process with provisions for continuous feedback. The process initially involves determining who shall attempt to deter whom from doing what, and by what means. Powell (1990) underscores the concept of credibility as very important in the deterrence theory.

“To be effective in influencing the expectations of the opponent (and thereby help secure a good outcome), threats and promises, collectively called “commitments”, have to be communicated properly and, crucially, have to be credible.” (Powell 1990:viii)

There are a number of assumptions in a nuclear deterrence theory. First of all, the deterrence theory assumes that states are unitary actors and behave logically. The second assumption of deterrence theory is that states adequately understand the calculations of the opponent. Another assumption of deterrence theory is that nuclear weapons are effective deterrent to wars between the states. This assumption formed the basis of the thinking during the Cold War when it was thought that possession of nuclear weapons by states would prevent war from occurring between those states and could provide safety to weaker states against an attack from a stronger state. Sagan and Waltz (1995) also argue that the spread of nuclear weapons deterred more states from going to war against one another. Thus, the nuclear deterrence theory assumes that nuclear arms race would not lead to a nuclear war as the principle of ‘mutually assured destruction’ would make each state to act rationally.

Role of Nuclear Deterrence in US Security Policy during the Cold War Period

For nearly five decades, after the commencement of the Cold War, deterrence was at the center of U.S. national security policy. In that period deterrence was viewed as the most critical means to contain the Soviet aggression against U.S. and its allies. The military and the political leaders of that time had repeatedly asserted that the U.S. nuclear arsenal was not in existence for the sake of waging a nuclear war, but its sole aim was to provide protection to the United States' strategic interests, primarily from the Soviet threat. Marullo (1985) says that the essence of deterrence is in the creation of a state of mind in the enemy that prevents enemy's aggressive actions due to the fear of the retaliatory consequences and this dominated the US strategy during the Cold War regarding the role of nuclear weapons as effective deterrence against a possible attack from an enemy country.

However, with time, as the rivalry between the two Cold War superpowers i.e. U.S. and the Soviet Union grew, a nuclear arms race commenced between the two countries as both tried to outdo each other in maximizing their nuclear arsenals. As the nuclear arms race continued the concept of mutually assured destruction (MAD) was evolved in the policy circles which modified the concept of deterrence accordingly. In fact, MAD produced mutual nuclear deterrence between the United States and the former Soviet Union emerging as the key element in preventing breakout of devastation between the two countries, Dunn (2001:23). Dunn says that during this time the U.S. officials periodically debated and redefined the requirements of stable nuclear deterrence, while putting in place a robust set of theater and strategic and non-nuclear military capabilities designed to convince their Soviet counterparts of the fearful damage that would result from aggression. Woolf (2006:6) says during the 1950s and 1960s, the United States sought to deter Soviet aggression by threatening "massive retaliation" and "assured destruction." However, in the 1970s the United States adopted a strategy of "flexible response" and, subsequently, a "countervailing strategy" which emphasized retaliatory strikes on Soviet military forces and war-making capabilities and

not on civilian and industrial targets. Later, according to Woolf the United States adopted the policy of “extended deterrence” to provide a cover to allies from any nuclear, chemical or conventional attacks. This “extended deterrence” basically served the function of forewarning the Soviet Union from launching any act of aggression against U.S. and its allies. U.S. also retained the policy of *first strike option* in case of a conflict with the only exception being those non-nuclear states who were parties to NPT.

Role of Nuclear Deterrence in US Security Policy during the Post-Cold War Period

The collapse of the Soviet Union brought an end to the Cold War rivalries and necessitated the need to reformulate the concept of nuclear deterrence and modify it according to the change in the circumstances. Dunn (2001:23) agreeing with this states that the collapse of the former Soviet Union and the emergence of hostile proliferators armed with chemical or biological weapons or possibly even nuclear weaponry made it necessary to rethink about deterrence. After the Cold War, in all the subsequent U.S. governments and their nuclear policy, nuclear deterrence continued to play a pivotal role. During the Clinton administration the nuclear weapons continued to remain important as a deterrent force and in its *National Security Strategy for a New Century*, the administration declared that the nuclear weapons to be a hedge against an uncertain future, a guarantee of security commitments to allies and a disincentive to those who would contemplate developing or otherwise acquiring their own nuclear weapons. Woolf (2006:8) says that during the Clinton administration, the U.S. policy was that of “studied ambiguity” under which the U.S. did not directly threaten to use nuclear weapons in retaliation for non-nuclear attacks but at the same time did not completely rule out the option of using a nuclear bomb if a country attacks U.S. with WMD. It however did specify that the attack would be both overwhelming and devastating in nature.

Even under the Bush administration the nuclear weapons continued to occupy a key role in the deterrent strategy of the country. Woolf (2006:10) says that Bush administration came up with a policy change in the deterrent strategy,

which came to be known as “tailored deterrence”. Under this the role of nuclear weapons was extended beyond deterrence and their role became more comprehensive and integrated. This was a move from the from ‘one size fits all’ deterrence to tailored deterrence that would specifically be used against the rogue powers and terrorist networks and near-peer competitors (Woolf 2008). Further the Bush administration also declared that since United States would not be able to deter the threats created by rogue states or terrorist organizations armed with WMDs, therefore it should be prepared to preempt these threats by launching strikes against adversaries before the latter attacks the United States or its allies.

However, the threat of nuclear weapons falling in the hands of irresponsible groups and states made the policy makers question the very relevance of nuclear weapons in this day and age. The “Group of Four” in their op-eds to The Wall Street Journal also questioned the role of nuclear weapons as deterrence in the U.S. security strategy and wrote that the reliance on nuclear weapons for the purpose of deterrence was becoming increasingly hazardous and ineffective in these times. This was followed by Obama’s famous speech at Prague on 5 April 2009 where he called for the complete elimination of nuclear weapons and envisioned a world free of nuclear weapons. He proposed reduction and eventual elimination of existing nuclear weapons, strengthening NPT, stopping the spread of nuclear weapons to additional nations and preventing terrorists and political extremists from obtaining nuclear weapons or material. However, at the same time he stressed on the requirement of maintaining a credible and effective nuclear deterrence against potential adversaries till the time other states possessed any kind of nuclear weapons.

The Debate: Disarmament versus Deterrence

The debate on the issue of deterrence and disarmament has had a long history. The complexity of the issue makes the division of the opinions of both scholars and statesmen quite understandable. Still there is a sort of consensus on the relevance of deterrence and disarmament as both are intricately linked to the peace and security of the global world order. An in depth analysis of the

debate explains both the difficulty and the dilemma which the United States faces on this issue.

Schelling (1962) discusses the role of deterrence in disarmament. He is skeptical about the occurrence of total disarmament as states may still hide their weapons and even if they don't the possibility of war could still not be ruled out because it can be fought with even the most primitive of weapons. Schelling says that even if a war broke out the states could easily rearm themselves until and unless their capacity for rearming was not completely destroyed. He adds that if nations were willing to risk war or to threaten it, they certainly might risk rearm or threaten to rearm themselves. Schelling further states that things meant for defense could also be used for offence. According to him, "defensive" weapons often embodied equipment or technology that was superbly useful in attack and invasion and defense against retaliation were close substitute for offensive power. Schelling considers rearmament as a genuine threat and says that even in the event that neither side had nuclear weapons, asymmetrical lead-times in nuclear rearmament could be decisive.

According to Schelling, "nuclear coercion" could emerge as another kind of warfare. He says that illicit nuclear weapons could be dropped on a country that is unable to retaliate promptly, which might force surrender through the destruction of cities and the threat of destroying more. Such a war might become more destructive as nuclear disarmament might not have reduced the attacker's capability but may have made the victim unable to respond owing to its nuclear disarmament program. Schelling says that in such a scenario the attacker could adopt a more measured pace that allowed time to negotiate a cease-fire before he had reduced his victim to rubble.

Schelling further emphasizes the strong linkage that exists between deterrence and disarmament and suggests that there should be no divorce between deterrence and disarmament. For disarmament to work, deterrence needs to be improved and stabilized.

The debate between deterrence and disarmament is further enriched by the debate between Kenneth Waltz and Scott Sagan over the spread of nuclear weapons (Sagan and Waltz 1995). While Kenneth Waltz presents a case for deterrence, Scott Sagan favours disarmament. Waltz primarily argues the case for deterrence and says that the world had seen considerable peace (since the Second World War) wherein the major powers were not involved in a direct conflict mainly because of the deterrence function provided by the nuclear weapons. He maintains that the spread (he prefers using 'spread' over 'proliferation') of nuclear weapons across countries took place slowly and this pace would not change much. Waltz looking into the possibility of further spread of nuclear weapons in the world and its implications on the latter bases his explanation on the neo realist theory. He assumes that since the states coexisted in the state of anarchy, self-help was the basic principle of action. Further, self help was also the most important way through which states could help themselves in providing for their security. He maintains that even in the face of deterrence war remained a possibility but the presence of nuclear weapons made the states exceedingly cautious. To illustrate it he gives the example of the Cuban Missile Crises of 1962 when the fear of breakout of mutual nuclear war prevented the war from occurring.

Waltz further arguing for the case of nuclear deterrence says that it was the miscalculations that caused wars. Drawing a comparison between conventional deterrence and nuclear deterrence Waltz says that deterrent threats were ineffective in a conventional world, because the damage threatened was distant, limited and problematic. However, nuclear weapons made miscalculation difficult and politically pertinent prediction easy and thus nuclear deterrent was more effective in preventing a war.

Waltz further argues that it was not logical to conclude that the new entrants to the nuclear club would act irresponsibly as the cost of doing so far exceeded the benefits. To support this argument further he says that smaller states and also the ones with weak civilian control over government would not necessarily act irresponsibly but might act with more caution as in case of an

irresponsible action by a smaller state the latter could be reduced to ashes with a single nuclear attack.

In the case of arms race Waltz maintains that deterrent strategies offered a great advantage as neither side needed to respond to increases in the other side's military capabilities owing to their existing nuclear capacities. Waltz says that very logic of deterrence eliminated the incentives for strategic arms race. He further adds that history had already shown that nuclear weapons did not make war any more likely. In fact, according to Waltz, nuclear weapons only lessened the intensity as well as the frequency of war among their possessors. He says that the fear of escalation of war made nuclear states decide not to fight for long and hard even over important interests. In fact the minor nuclear states had even better reasons than major ones to accommodate one another and avoid fighting. Waltz says that among the nuclear countries possible losses in war overwhelmed possible gains.

In his analysis, Waltz states that countries took care of their own security and if they felt insecure and believed that nuclear weapons would make them more secure, then even America's policy of opposing spread of nuclear weapons would not prevail. Further he maintains that if America was reluctant to provide security to states then it should not decide how other countries provided for their security. Waltz says that nuclear weapons made war hard to start and this was true for small as well as for big nuclear weapons and that is why the gradual spread of nuclear weapons should be more welcomed than feared.

On the other end of the spectrum is the case for disarmament that is succinctly put forward by Scott Sagan (Sagan and Waltz 1995) who argues the case from the organizational perspective. According to Sagan, the "proliferation optimist" position flows from the logic of rational deterrence theory that is the possession of nuclear weapons by two powers reduced the likelihood of a war because it made the war a costly affair. Sagan compares both the Rational Deterrence Theory and Organizational Theory in the context of deterrence. According to Sagan, the professional military organization displayed organizational behaviors that were likely to lead to deterrence failures and

deliberate or accidental war. He argues that unless the military organizations were professionally managed through a system of checks and balances system of a strong civilian control, the former were unlikely to fulfill the operational requirements of a stable nuclear deterrence. The second argument put forward by him against deterrence is that the future nuclear armed states would lack the mechanism of civilian control.

Sagan differs from Waltz in case of preventive war. While Waltz maintains that military leaders would not be more inclined towards preventive war, Sagan, on the other hand, believes that military leaders would be more susceptible to the “better now than later” logic and hence would be more inclined to go for a preventive war. Military, according to Sagan, focuses on operational goals while addressing security problems and victory is seen in a narrow militaristic sense. He argues that states with unstable civil-military relations could acquire nuclear weapons in future and since civilians would not be in firm control in all future nuclear states, there was a good reason to fear that military biases in favor of preventive war would be more likely to prevail than was the case with the superpowers during the Cold War.

Sagan also expresses considerable doubts on the development of ‘survivable’ (retaliatory) force by the new nuclear powers, which would be an essential requirement for deterrence according to Waltz. According to Sagan these states if left on their own, might not even construct an invulnerable nuclear arsenal. Sagan also expresses the fear of more accidents, proliferation and weak nuclear safety as these were very much linked to the organizations.

Moving ahead from a purely theoretical understanding, the debate is now analysed from the angle of actual policies of the U.S. administration.

Schachter (2011) says that there was an incompatibility between the various goals that Obama had put forward in his speech at Prague and one of them was between the goal of disarmament and the need to maintain an effective deterrence. Obama at Prague while calling for “Global Zero” said that as long as nuclear weapons would exist United States would retain a strong deterrent. This statement by Obama clearly depicted that even though the administration

wanted to pursue the goal of disarmament but at the same time wanted to maintain a credible deterrence. Schachter highlights the tension between disarmament and deterrence when he says that problem with the Obama's approach towards nuclear disarmament was that it weakened deterrence in two different ways.

Firstly, as Schachter (2011:30) says deterrence between two armed states is stabilized by sufficient number of nuclear weapons and a resilient delivery system to ensure second strike. He argues that there will come a point in the road leading to total disarmament where these conditions will no longer hold. The country launching a nuclear attack would not be threatened by a similar level of retaliation since the other country by then would have lost its second strike capability owing to its disarmament program. This would make first strike an appealing option because the fear of a nuclear retaliation would not be there and there will be a point where both the sides will have the greatest incentive to strike first. Schachter says that in such a case total disarmament pathway would lead to weakening of deterrence and would incentivize first use.

The second threat to deterrence according to Schachter comes from the Obama administration's combined approach of moving away from nuclear weapons and simultaneously depending on them for deterrence, which would send mixed signals to the potential challengers. For deterrence to be effective, the threat must be credible enough (Waltz, 2009) and not ambiguous in any way. Another aspect of the problem could be the one involving the U.S. allies. Those states that come under the U.S. nuclear umbrella might be forced to go nuclear to seek nuclear self-reliance as American nuclear hesitancy could embolden those states' enemies.

Schachter argues that while Obama Administration's goal of nuclear disarmament might succeed in a relatively short term in reducing the size of world's largest nuclear arsenal but the way it would proceed carried the danger of less effective and less stable deterrence and ultimately greater nuclear proliferation among friends and foes and an overall weakening of the NPT.

Walker (2009) also expresses his doubts regarding nuclear disarmament agenda propounded by Obama at Prague. For the total elimination of nuclear weapons a number of obstacle were required to be overcome which could be difficult since Walker says they were becoming “more daunting” with each passing day. According to Walker (2009:19), nuclear deterrence was still highly valued by the states that practiced it as it was often viewed as a stabilizing factor in their relations with other powers and as the best guarantee that wars would not occur amongst them. Walker adds that even the extended deterrence was a useful tool against nonproliferation and provided stability to regions that had histories of conflict. Till the time nuclear deterrence would continue to hold relevance, nuclear disarmament could not really become a reality.

Conventional Weapons versus the Nuclear Weapons

Nuclear weapons have occupied a central role in the U.S. security apparatus for many decades now. Though they are still considered essential for the security of the U.S. but they are losing some their importance and primacy that they enjoyed in the Cold War days. In fact a new way of thinking is emerging in the United States, which believes that the dependence on nuclear weapons for direct security purposes was getting reduced day by day. There are many reasons for the development of this new pattern of thinking.

Firstly, after the end of the Cold War the traditional thinking regarding the Cold War rivalries has undergone a change and in this new and changed security environment keeping more number of nuclear weapons than what is required for the purpose of deterrence makes no sense. Secondly, the threat from the terrorists arming themselves with nuclear capability cannot not be effectively dealt with as the terrorist organizations were outside the framework of nuclear deterrence and this made the reliance on nuclear weapons for the deterrence purposes increasingly hazardous and decreasingly effective (Schultz et al 2007). Moreover the continued presence of nuclear weapons made the fear of proliferation of these weapons to the terrorist organization more real. Thirdly, billions of dollars are being spent every year to maintain these nuclear weapons and this was becoming an increasingly

costly exercise to maintain such huge stockpiles of nuclear weapons. Fourthly, effective conventional weapons and missile defense offer a greater promise and potential in dealing with the current security challenges of the world. In fact precision guided munitions offer a more flexible and accurate attacking ability. Fifthly, the scope of accidents, errors, misjudgements were higher and costlier in case of nuclear weapons, which are kept in launch ready postures. Since the decision time in launching a nuclear weapon is extremely less, any judgment error could have dangerous consequences not only for the countries involved in the conflict but also neutral countries.

Several experts have also questioned the role of nuclear weapons in the U.S. security policies and recommend an increased dependence on conventional weaponry for achieving its objectives. Nitze (1999) has also argued against the utility of nuclear weapons and favors conventional weapons over it. He states that there were no such circumstances under which it would be wise for the United States to use its nuclear weapons as it would invariably result in the killing of innocent people. Further, he suggests that the conventional weapons could fulfill the same purpose and objectives and with much better accuracy. As a suggestion to deal with nuclear threats emanating from other rogue states, Nitze suggests that United States could eliminate their nuclear capabilities with the preemptive use of its conventional weapons and the same principle could be applied to any threat emanating from unstable states with nuclear arsenals.

Kaldor (1999) supporting the viewpoint on diminishing role of nuclear weapons states that nuclear weapons were losing political and strategic salience since the end of Cold War and this trend was likely to continue mainly due to advances in conventional weaponry and information systems that had diminished the reliance on nuclear weapons.

Even in the military establishment in U.S. there has been a growing acceptability of conventional weapons in achieving the military targets of the country. According to Walker (2009:14), Pentagon had put up little resistance in deep reductions in the nuclear arms that began in 1980s and the Nuclear Posture Review of 1993 also had diminished the role of nuclear weapons in

US military strategy. Walker says that US military forces could achieve most of their goals without the overkill of nuclear weapons and their use in tactical and strategic roles was now so hedged about with restraint that they had questionable political and military utility other than weapons of last resort. Walker adds that since maintaining and sustaining the nuclear weapons was becoming increasingly costly, Pentagon might prefer to minimize and avoid such investments.

Regarding the conventional weapons Walker says that the U.S. was quite convinced about its military superiority. According to him, one of the reasons for the contemporary U.S. interest in nuclear disarmament was tied to judgments regarding the strategic advantage of the nuclear weapons over conventional weapons. U.S. enjoys a substantial superiority over other states when it comes to conventional weapons but U.S. is unable to exploit their potential to the maximum as even a minor nuclear weapon gives a state enough leverage to defy U.S.

Global Zero U.S. Nuclear Policy Commission Report, released in May 2012 offered strong preference for conventional weapons over the nuclear weapons and it also pointed out many of the problems related with the nuclear weapons in context of latter's relation with country's security policy. According to this report, for the United States, deterring and defeating aggression in today's world depended a great deal less on projecting nuclear offensive threat and a great deal more on the skilled exercise of all the instruments of power, both "soft" and "hard." Thus, United States should reduce its reliance on nuclear weapons and consequently seek to negotiate further reductions in the U.S. and Russian nuclear arsenals.

According to the report, the current nuclear stockpile vastly exceeded what was needed for deterrence. In fact, the report points out that the strong conventional forces and missile defenses could offer a far superior option for deterring and defeating a regional aggressor. According to the Report, the non-nuclear forces were also far more credible instruments for providing 21st century reassurance to allies under the U.S. nuclear umbrella and the 9/11 attacks exposed the lack of efficacy of nuclear forces in dealing with 21st

century threats. The Report further points out that nuclear weapons could become a real risk if non-state actors got hold of them. In lieu of this, these weapons could become more a part of the problem than a solution.

The report also gave an “Illustrative U.S. Nuclear Force Structure and Posture” in which importance of nuclear weapons had been reduced and that of the conventional weapons had been increased. In this notional force, the main muscle would be provided by the Trident ballistic missile submarines and the B-2 bombers. According to the Report the submarine force would offer a high degree of survivability for many decades as no peer competitor currently had any effective anti-submarine warfare capability against U.S. Further both submarines and bombers would offer a high degree of flexibility to the U.S. defence forces. This Report said that the conventional weapons were not only low risk with greater precision and more flexibility of response but were also in line with the commitment that the United States had made to work for nuclear disarmament.

The 2010 Nuclear Posture Review also mentioned that the United States would continue to strengthen conventional capabilities and reduce the role of nuclear weapons in deterring non-nuclear attacks, with the objective of making deterrence of nuclear attack on the United States or its allies and partners the sole purpose of U.S. nuclear weapons. Further, the Report said that the US would maintain Strategic Deterrence and Stability at Reduced Nuclear Force Levels. US would also take up a program to increase the shelf life of their arsenal so that the need for making or testing new weapons could be done away with. In addition to this, the NPR said that the modernization of the ageing nuclear facilities would also take place and the US would work to reduce the salience of nuclear weapons in international affairs.

The Review made few things very clear. Firstly, the US would continue to keep nuclear weapons for deterrence purpose as long as nuclear weapons exist but the importance of nuclear weapons would be gradually reduced in the times to come. However, till that time comes they would continue to be an important component of the US security apparatus. Secondly, the report highlighted the superiority of the U.S. conventional weapons and ballistic

missiles, which reflects the confidence that U.S. has on this type of weaponry, which means that these weapons could play a larger role in the times to come. Thus the Review highlights the growing importance of the conventional forces in the US security strategy but at the same time maintains that nuclear weapons would continue to play a significant role at least in the near future.

Debate on importance of nuclear weapons in the U.S. security

The Cold War politics and the ensuing rivalry between the two superpowers made nuclear weapons a constant feature in the U.S. security structure. During that period there was a widespread belief that nuclear weapons were an effective deterrence against any attack launched by an adversary so both the rivals i.e. U.S. and Russia armed themselves to the teeth with nuclear bombs. Woolf (2008) says that even till 1991 there was a widespread consensus on the need of nuclear weapons for deterrence. The need and role of nuclear weapons was hardly debated because of a widespread consensus on their role as an effective deterrent against an enemy attack. Further, the nuclear weapons also reinforced the superpower status of both the U.S. and Russia. However this consensus collapsed after the end of Cold War and this led to the initiation of debate on the need and role of nuclear weapons in the changed international environment.

In a joint 2008 report by AAAS Working Group, the American Physical Society and Center for Strategic and International studies, the role of nuclear weapons in the U.S. National Security in the 21st century has been analyzed. The report says that there was no broad-based consensus on the issue of the how important U.S. nuclear weapons were to the U.S. security. Instead, those within the policy community, according to the report, could be divided into four groups that had differing opinions on the salience of U.S. nuclear weapons.

The Report says that the first group represents those who give extreme importance to nuclear weapons or in other words attach “high salience” to the nuclear weapons. The members of this group believe that nuclear weapons still retain a Cold War like importance and still have the same deterrence

function or role as they had in the Cold War era. The group maintains that in order to ensure a credible deterrence to the 21st century adversaries, the US should develop new nuclear capabilities.

According to the report, the second group is of those who give “moderate salience” to nuclear weapons. Adherents to this camp believe that nuclear weapons still play a significant role and that a safe secure and reliable nuclear stockpile is needed for an effective deterrence. At the same time this group believes that no new capabilities are required or should be developed. This group believes that nuclear modernization by U.S. could effect its standing in the international forums but at the same time maintains that if a need arises then the stockpile and infrastructure could be upgraded.

Third group, the report says, can be termed as the “low salience” group because according to this group nuclear weapons make only residual contribution to the US security. The role of the nuclear weapons is mainly limited to deter a direct attack on U.S. or its allies. According to this group, this role function can even be fulfilled by a smaller nuclear stockpile. This group supports limited nuclear refurbishment but at the same time stresses that it shouldn’t undermine the US support for policies meant to reduce nuclear weapons or prevent proliferation.

Finally, according to the report, the fourth group lies at the other extreme and attaches “negative salience” to nuclear weapons. According to this group the very existence of nuclear weapons is a threat to humanity and thus the focus should be on the complete elimination of nuclear weapons. Within this group there is a sub group called the “nuclear abolitionists.” These people support deep unilateral reductions in the U.S. nuclear arsenal and oppose any nuclear modernization. According to them, nuclear weaponization results in wastage of resources and has a negative consequence that it legitimizes nuclear weapons. Others in the group have proposed initiatives that will be necessary towards an eventual goal of elimination of nuclear weapons. But they maintain that all reductions be made in a bilateral, and where appropriate in multilateral fashion.

Pre-emptive Nuclear Strike Capability Versus No First Use Policy

The United States in all its policy pronouncements never ruled out the possibility of first use of nuclear weapons. It has kept its options open in the use of nuclear weapons which in all likelihood would continue as a policy at least for a few more years to come. This argument seems validated by the policy stance taken by the Nuclear Posture Review of 2010, which even though reduced the role of nuclear weapons in the US security strategy but continued with policy of keeping the option of first use of nuclear weapons open. Waltz (2010) agreeing with this viewpoint said that the NPR of 2010 just narrowed down the range of scenarios in which the US could respond with nuclear weapons but left the clause of first use policy untouched. According to Hoffman (2010), a dramatic idea in the NPR of 2010 would have been to declare that the United States would never be the first to use nuclear weapons but it was discarded. United States in all these years kept the option of launching a pre-emptive strike open for itself to deter any potential adversary from launching an attack on the American soil. However, in recent times there have been repeated calls for adoption of no first use stance by the US administration to give more stability to the international security structure.

Sagan (2009) presenting a case against the first use policy of the U.S. argues why the U.S. should adopt a no first use stance. Sagan maintains that he is not the first one to come up with the idea as such suggestions were made numerous times in the past but they only got rejected by subsequent U.S. governments. According to Sagan, since the nuclear weapons have had such a central role in the US strategy for such a long time, the analyses of the role and missions of the US nuclear forces including their official nuclear posture reviews have been narrow and have focused on the role of nuclear weapons in deterrence and have either neglected or have not examined the effect of these policies on the broader US objectives regarding non-proliferation and nuclear terrorism. Further he maintains that because of this narrow focus, both the government and the academic analysis have exaggerated the potential

diplomatic and military costs of a no first use doctrine and have seriously underestimated its potential benefits.

Sagan agrees that during the Cold War there was a need to exaggerate the US policy of first use because of the conventional superiority of the Soviet Union and its Warsaw pact partners. After the end of the Cold War he doesn't see the necessity of this. Some argue that the US concern about extended deterrence has been the main reason for maintaining the current US declaratory policy concerning first use option and ambiguity (although studied) about when nuclear weapons might be used. Sagan responds to this by arguing that the extended deterrence could be made compatible with a no first use doctrine if changes in the US security guarantees were made to fit the current condition of the US conventional military superiority. Further he maintains that no first use doctrine could also provide broader diplomatic and non-proliferation benefits.

On calculated ambiguity, some argue that it enhances deterrence because it raises the cost for the potential aggressor if it attacks with chemical or biological weapons. On the other hand, others argue that such threats are contrary to the US negative security assurance and such threats would encourage proliferation. According to Sagan such a policy is clearly inconsistent with the US negative security assurance. On the other hand he maintains that such declarations do add to the credibility of the US threat to respond with nuclear weapons by creating ambiguity about the likely response but also by creating commitment trap. According to Sagan such threats do not just signal commitment but they create commitment. Sagan asserts that a no first use policy would usefully end the inconsistency regarding the US negative assurances and the calculated ambiguity policy.

On terrorism it is widely argued that terrorist organizations and leaders cannot be deterred. According to Sagan a no first use policy would make the US engagement in the global debate about the illegitimacy of nuclear weapons more credible. It will also enhance US non-proliferation objectives by increasing international diplomatic support for tougher diplomatic measures against potential proliferators.

In spite of these arguments and growing consensus in favour of no first use policy, the US administration is reluctant to change its stance. As previously mentioned the NPR of 2010, reflects that US administration still values its first use policy regarding the nuclear weapons.

Gerson (2010) says that by not adopting the no first use policy (NFU), the NPR had missed an important opportunity to reduce the role of nuclear weapons in U.S. strategy. The traditional case for NFU hinges on the argument that the threat of nuclear first use is unnecessary for deterrence. Further, he adds that the continued U.S. option to use nuclear weapons first is not only unnecessary but dangerous. Given the size and accuracy of the current U.S. nuclear arsenal, and given the variation in the nuclear capabilities of current and potential adversaries, the first-use option risks creating instabilities in a severe crisis that increase the chances of accidental, unauthorized or deliberate nuclear use. Gerson says that in a future crisis with a nuclear-armed state, the fear whether real or imagined that the United States might attempt a disarming nuclear first-strike increases the possibility of nuclear escalation.

In this chapter the debates that have been going on in the academic and policy circles regarding nuclear disarmament were highlighted. The collapse of consensus (after the end of the Cold War) on the need and role of nuclear weapons triggered a number of debates, which had been lying dormant for quite some time. Many of the above mentioned debates can be traced back to that time. These debates have been hotly contested ones and have been fought among other things on theoretical, practical, ideological and ethical grounds.

A few important conclusions have come up on analyzing the above debates. First, even though nuclear disarmament has all along been a cherished goal of the US it has not been willing to pursue it at the cost of deterrence. Secondly, there is no doubt that the nuclear weapons have played a key role in the American security setup for many decades, its importance is getting reduced while the importance of conventional weapons is on a rise. The conventional weapons security of the United States gives the policy makers an opportunity to reduce their reliance on nuclear weapons for the security purposes.

Thirdly, in spite of the call for complete nuclear disarmament and reduction in the nuclear arsenal, the weapons are still valued very high, at least by the US strategists. Fourthly, policy changes take place only with time. In fact policies have a high shelf life. It was awaited with lot of enthusiasm and expectation but the final outcome only showed that the US would continue lot of its previous policies including the first use option.

Debates are important as they often result in policy changes. They influence and get influenced by the policies but more importantly the realities of the day determine the course a nation takes. Security environment and threat perception continued to play a critical role in the formulation of security strategies. In the next chapter we will focus on Obama's policy on nuclear disarmament with special emphasis on global zero.

CHAPTER 3

Obama's "Global Zero" Proposal: U.S. Motivations and International Reactions

Introduction

In 2009, in his now famous speech at Prague, President Barack Obama put forward his grand vision for a world free of nuclear weapons. The speech loaded with eloquence and rhetoric was well received around the world by leaders and civil society members alike and it put the goal of nuclear disarmament back on the agenda of the world community. The speech called for a greater international effort as well as a mutual consensus in the direction of nuclear non-proliferation and global nuclear disarmament. Obama in his speech also declared that it was United States' moral responsibility to work relentlessly in this direction since it was the only nuclear weapon state that had used the nuclear weapon against another state.

Obama's public endorsement of the goal of global nuclear disarmament infused a new energy in the whole movement, which had suffered greatly during the Presidency of George W. Bush when the entire issue had been relegated to the background in the name of national security. In fact, the salience of nuclear weapons had only increased in the national security policies of U.S. during the Bush years (Gupta, 2010:45). Also, the entire non-proliferation regime, which had come under stress due to defiant actions of countries like Iran and North Korea which were allegedly pursuing clandestine nuclear weapons projects, also received a shot in the arm with Obama's public call for strengthening the non-proliferation regime. Warren (2011:442) says that many in the Prague audience and broader international community viewed the speech as a sharp break from the policies of the previous administration, which had banished the term 'disarmament' from its official vocabulary. Observers have since been looking for different reasons for this sudden rise in interest of Obama administration in the global nuclear disarmament discourse and have held both the looming threat of nuclear

terrorism as well as acquisition of nuclear weapons by hostile states as responsible for this development.

The Prague speech was soon followed by a Nobel Prize, which many saw as too early a recognition. Experts like Warren (2011) say that Obama nearly presaged his Noble Prize with the speech at Prague. Many critics also questioned Obama's very intention behind this public declaration of United States' future policy on nuclear weapons and saw it as a mere fear for national security from nuclear armed terrorist groups that had been dressed in the garb of the lofty goal of nuclear disarmament. Whatever might have been Obama's intention and purpose the Prague speech did revive the old debate on nuclear disarmament and gave a fillip to the entire movement worldwide. Gupta (2010:46) says that the supporters of nuclear disarmament could take heart from Obama's speech and hoped that Obama would lend his weight to the cause of nuclear disarmament. There were some early breakthroughs as well that followed Obama's Prague speech like the signing of the New START between U.S. and Russia, the successful organization of the 2010 NPT Review Conference, release of new U.S. Nuclear Posture Review etc. This enthused the supporters of nuclear disarmament further and made Obama's promises look more genuine. Schachter (2011:28) says that since the Prague speech Obama acted on nearly all of what he had promised in his speech, albeit on some elements more meaningfully and successfully than others.

However, despite this initial enthusiasm and some early achievements, the goal of nuclear disarmament got lost in the middle of Obama's presidency as the compulsions of an ailing economy and dwindling popularity of later years made Obama concentrate on more immediate tasks at hand.

In this chapter, we will analyze Obama's vision for nuclear disarmament along with the factors that motivated him to deliver the historic speech at Prague. Along with this, we will also analyze the reaction of the world community, including both the leaders as well as scholars, to Obama's call for nuclear disarmament. Finally, the success and failures of Obama in the direction of realization of his goal of nuclear disarmament will also be analyzed here.

Obama's Call for Nuclear Disarmament

On 5 April 2009, President Barack Obama gave a rousing speech at Hradčany Square in Prague, unveiling his grand vision for a world free of nuclear weapons. Obama's declaration that elimination of nuclear weapons would henceforth become a central element in United States' nuclear policy received wide cheer from the gathered public as well as supporters of the cause of global nuclear disarmament. Obama's bold public statement on country's nuclear policy in Prague wasn't such an unexpected move by the U.S. administration as it was made out to be. Landau et al (2011:7) says that even during his presidential campaign, Obama had expressed his desire to significantly reduce the world's nuclear arsenal and declared his support for 'global zero' agenda, which had been the brainchild of four former United States statesmen who had propounded it in a series of articles in a newspaper in 2007 and 2008.

Further, the global nuclear scene had also made Obama call for a 'global zero' as it was becoming increasingly antagonistic to U.S. security interests. Fear of proliferation of nuclear weapons and technical know-how to non-state actors and traditionally hostile countries like Iran and North Korea was becoming day by day more real. Perkovich et al (2007:16) say that the availability of Highly Enriched Uranium (HEU) and Plutonium had emerged as the biggest threat as these materials were much easily accessible to terrorist groups because of the collapse of the Soviet Union and poor security at nuclear stockpiles in the former Soviet republics and in dozens of other countries. Thus, to contain the spread of nuclear weapons to non-nuclear states, President Obama decided to express his solidarity with the global nuclear disarmament movement at the public stage of Prague and committed to include the goal of nuclear non-proliferation and nuclear disarmament in the United State' future security policies.

Obama's speech on nuclear disarmament was laced with both optimism and fear. Obama lamented the fact that though the threat of global nuclear war had gone down with the end of the Cold War, the risk of a nuclear attack had only gone up. He called for the decreasing the relevance of nuclear weapons in the

global security discourse. He felt that the continued relevance of nuclear weapons in the world had made the possibility of nuclear weapons falling in the hands of irresponsible groups or states seem more real and now that threat was greater than ever. He added that the thriving black market of trade in nuclear secrets and nuclear materials only aggravated that threat further. To undermine the growing possibility of nuclear weapons falling in dangerous hands and to contain the unabated testing of nuclear weapons that was going on in the world, Obama called for strengthening the Nuclear Non-Proliferation regime.

“Terrorists are determined to buy, build or steal one. Our efforts to contain these dangers are centered on a global non-proliferation regime, but as more people and nations break the rules, we could reach the point where the center cannot hold.” (Obama, 2009)

Obama recognized the responsibility that United States owed to the world in this regard when he said that the US as the only nuclear power to have used the nuclear weapon had the moral responsibility to act against the spread of nuclear technology to rogue countries as well as non-state actors. The pragmatist in him came to the fore when he said that the goal of total nuclear disarmament could not be achieved in his lifetime.

Despite this, his strategy for achieving the goal of nuclear disarmament called for reduction of the role the nuclear weapons in the global security discourse and said that U.S. could lead the way here by adopting a diminished role for nuclear weapons in its security strategy. In his speech he laid equal stress on both the reduction in the stockpiles of nuclear weapons as well as containing the proliferation of nuclear weapons to rogue states to achieve the goal of nuclear disarmament. For the achievement of the former, he said that the US would negotiate a new Strategic Arms Reduction Treaty with the Russians that year for a substantial reduction in nuclear warheads and stockpiles of both the countries. For the latter objective, he called for strengthening of the Nuclear Non-Proliferation Treaty as a basis for cooperation.

“The basic bargain is sound: Countries with nuclear weapons will move towards disarmament, countries without nuclear weapons will not acquire them, and all countries can access peaceful nuclear energy.” (Obama, 2009)

However, Warren (2011:442) says that the part of speech pertaining to the NPT was the weakest component in an otherwise impressive rhetoric at Prague. Warren says that Obama’s comment on NPT not only lacked “clarity and coherence” but there was also no overriding commitment to the three basic pillars of NPT i.e. non-proliferation, disarmament, and peaceful uses of nuclear energy.

He also called for a global ban on nuclear testing and recognized the disabling role played by the prior US administration in the actualization of the Comprehensive Test Ban Treaty (CTBT). He said that his administration would immediately and aggressively pursue the U.S. ratification of the CTBT and added that after nearly five decades of talks it was high time for the final banning of the testing of the nuclear weapons.

Obama also said that the United States would seek a new treaty that would verifiably end the production of fissile materials intended for use in state nuclear weapons. He added that for a serious end to the spread of nuclear weapons, there was a need put an end to the dedicated production of weapons-grade materials that created them.

He also recognized the right of every country for an access to peaceful nuclear energy and for this called for building a new framework for civil nuclear cooperation that would also include an international fuel bank.

“That must be the right of every nation that renounces nuclear weapons, especially developing countries embarking on peaceful programs.” (Obama, 2009)

Landau (2011:7) says that broadly, three principal means were outlined in Obama’s speech for the advancement of goal of nuclear disarmament: the reduction and eventual elimination of existing nuclear arsenals; reinforcement of the Nuclear Non-Proliferation Treaty (NPT); and heightened efforts to

secure nuclear materials and nuclear weapons components and prevent their reaching terrorist groups.

Obama' speech also promised to lay more stress on dialogue when dealing with rogue countries as opposed to a more confrontational approach that was adopted by the last Bush administration. While Obama called for greater use of diplomacy in dealing with defiant countries, Warren (2011) says that Bush tried to coerce nuclear rogues through threats of pre-emption/prevention. Obama also called for greater efforts to break up black markets, detect and intercept materials in transit and use financial tools to disrupt the dangerous trade.

However, despite this public declaration of greater coordinated efforts in the direction of nuclear disarmament, Obama said that nuclear deterrence would continue to hold relevance in the U.S. security policy till the time the nuclear weapons would exist. Landau (2011:7) says that Obama qualified this aspiration for global nuclear disarmament by acknowledging that while the goal was total nuclear disarmament, United States would continue to maintain its nuclear arsenal at a level required to ensure its own nuclear deterrence as long as there were nuclear arms in the hands of other international actors.

“The United States would maintain a safe, secure and effective arsenal to deter any adversary, and guarantee that defense to our allies. But we will begin the work of reducing our arsenal.” (Obama, 2009)

Obama's speech received thunderous applause from the gathered crowd in Prague. The abolitionists around the world saw in Obama their latest champion for the cause of nuclear disarmament. International reaction was also generally positive although many leaders were guarded in their response to the speech (Dhanapala 2010:3). However, to say that Obama did not have his own set of critics would be a fallacy. In fact many skeptics questioned Obama's very intention behind this public endorsement of nuclear disarmament movement.

Obama's Policies: A Break from the Past

Obama's speech at Prague introduced a new paradigm in the U.S. policy circles. Since the Second World War the nuclear weapons had figured prominently in America's security policies and despite several attempts by Presidents like Ronald Reagan and other such statesmen nuclear weapons and national security continued to remain hyphenated all through this period. The significance of nuclear weapons particularly increased during the Presidency of George W. Bush who repeatedly laid stress on the relevance of nuclear weapons for ensuring a secure America. Obama, on the other hand, had for long been a critic of nuclear weapons and an ardent proponent of nuclear disarmament, which he made clear regularly during his presidential campaign. After becoming the President, Obama pursued the issue more vigorously. Schachter (2011:28) says that President Obama pushed for the nuclear disarmament agenda more vigorously than any American president since Reagan. This palpable break introduced by Obama in the U.S. nuclear policy from the previous Bush administration gave rise to a flurry of activity in the academic circle as each analyzed the reasons for this change in stance ushered in by Obama.

During George W. Bush presidency not only the issue of nuclear disarmament got relegated to the background but the salience of nuclear weapons in the US's security policy also increased. Perkovich et al (2007:21-22) say that while all the previous regimes before Bush viewed the nuclear weapons as a problem in themselves that should gradually be done away with, under Bush the focus shifted from eliminating weapons to eliminating regimes. Gupta (2010:46) says that the security backdrop during Bush's presidency had a major impact on latter's policies on nuclear weapons. The twin attacks launched on the World Trade Centre in 2001 by the terrorist groups, made country's security as one of the prime concerns of the Bush administration. Further, attempts by hostile states like North Korea and non-state actors like the terrorist groups to acquire the nuclear weapons and the related technical know-how had emerged as a real threat during Bush's presidency.

These developments made Bush to rely heavily on nuclear weapons to deter any attack or threat of attack by any anti-US group. Thus, under the previous administration of Bush, the U.S. nuclear doctrine became more inclined towards the use of nuclear weapons in augmenting the national security. Gupta (2010:45) agrees with this when he says that instead of nuclear disarmament becoming part of US's security agenda under Bush, the salience of nuclear weapons only increased during his presidency. According to Warren (2011:432), Bush's administration viewed both the arms control treaties and multilateral non-proliferation agreements as inherently unverifiable and overly constraining to their notions of US security strategy. The US Nuclear Posture Review (NPR) released in 2002 also reflected the new nuclear doctrine adopted by Bush. In the NPR the threshold for use of nuclear weapons by U.S. was not only lowered but it also allowed U.S. to use nuclear weapons to deter any attack led by chemical and biological weapons against its soil and also to use them in a preemptive strike. Under Bush, the Reliable Replacement Warhead (RRW) program was introduced by the administration to replace aging nuclear warheads with the new ones, which again clearly depicted the continued relevance of nuclear weapons during his presidency. Warren (2011:432) says Bush during his tenure ignored the Comprehensive Nuclear Test Ban Treaty, withdrew from the Anti-Ballistic Missile Treaty to pursue a national missile defense system and signed only a cursory arms reduction treaty with Russia that did not even include counting measures, let alone verification. Gupta (2010:45) says that Bush vigorously pursued Ballistic Missile Defence (BMD) Program, which greatly hampered US-Russia relations and became a constant point of friction between the two countries. Warren says that the Bush doctrine regarding the nuclear weapons could not be termed as a doctrine of preventive intervention alone, but one that advocated nuclear weapons reactivation.

On the other hand, Gupta (2010:46) says that Obama came on the mandate of change and that is why he reversed many of the policies launched by the Bush administration. Gupta adds that even Obama's pronouncement on nuclear weapons in Prague was in consonance with Obama's mandate for change. Also, as Schachter (2011:28) says Obama demonstrated his commitment to

total disarmament and continued deterrence not just in speeches but his approach was reflected prominently in the April 2010 Nuclear Posture Review Report (NPR) and the May 2010 National Security Strategy, both of which emphasized America's commitment to move away from reliance on nuclear weapons, while emphasizing the ongoing need to deter enemies and reassure allies and partners. Further, Obama also adopted a more conciliatory approach towards the rogue states as opposed to that of Bush who relied on arm-twisting tactics to make the hostile states fall in line. Obama on the other hand called for greater use of diplomacy and dialogue to engage with such countries.

THE ROLE OF “GROUP OF FOUR”

Four former statesmen of U.S. administration revived the entire debate on nuclear disarmament when they called into question the very relevance of nuclear weapons in the post-Cold War era in their articles to a newspaper. Two op-eds written by former U.S. Secretaries of State George Shultz and Henry Kissinger, former Defense Secretary William J. Perry, and former Senator Sam Nunn jointly in the Wall Street Journal in 2007 and 2008 put the issue of nuclear disarmament back on the agenda of the US administration. Regarded as the 'Gang/Group of Four', these four men called for a world free of nuclear weapons and questioned the role of nuclear weapons as a deterrent force.

In the first of their article that was published on 4 January 2007, the four wrote that the nuclear weapons might have been essential during the Cold War era owing to their role as an effective deterrence force but the end of the Cold War makes the doctrine of 'mutual Soviet-American deterrence' obsolete. They also added that any reliance on nuclear weapons for the purpose of deterrence in post-Cold War era had become “increasingly hazardous and decreasingly effective”. Shultz et al in their article also expressed ample fear of nuclear weapons falling in the hands of non-state actors like terrorist groups and wrote that that could become a major security challenge as the non-state terrorist groups with nuclear weapons were conceptually outside the bounds of the deterrent strategy. Apart from the this threat, the authors wrote that with

the increase in number of rogue countries with nuclear weapons or with aspirations to acquire one could commence a new nuclear age, which could be not only precarious and psychologically disorienting but also economically costly for the United States. To prevent the world from entering a new nuclear era the four called for 'rekindling the vision shared by Reagan and Gorbachev' and a global effort led by US to reduce the reliance on nuclear weapons. In their article the four suggested that there was a need of intensive work with leaders of the countries in possession of nuclear weapons to turn the goal of a world without nuclear weapons into a joint enterprise. They wrote that there was a need for a bold vision supported by commensurate actions to make the "world free of nuclear weapons" a reality.

"Without the bold vision, the actions will not be perceived as fair or urgent. Without the actions, the vision will not be perceived as realistic or possible."
(Schultz et al 2007)

This article was well received by the experts and disarmament enthusiasts around the world. Mikhail Gorbachev also published an article in the Wall Street Journal in support of the stance taken by the "Group of Four" against the nuclear weapons. Gorbachev wrote that there was a need to put the goal of elimination of nuclear weapons back on the agenda and it shouldn't be in a distant future but as soon as possible. He wrote that elimination of nuclear weapons linked the moral imperative i.e. the rejection of such weapons from an ethical standpoint with the imperative of assuring security. He added that nuclear weapons were no longer a means of achieving security and in fact they made security much more precarious. Gorbachev also chided the current world leaders for lacking the required political will for bridging the gap between the rhetoric of peace and security and the real threat looming over the world.

This was followed by another article by the "Group of Four" in the Wall Street Journal on 15 January 2008 in which they suggested the desired steps for moving "towards a nuclear-free world". Shultz et al wrote that with the fast dissemination of nuclear weapons, nuclear know-how and nuclear material the world had reached a nuclear tipping point and there was a real

danger of these weapons falling into dangerous hands. Seemingly impressed by the positive response that they received for their first article, the four former statesmen suggested a number of steps that would need to be taken in the direction of global nuclear disarmament. Although they added that other nations would also need to join in in these efforts but held that U.S. and Russia had a special responsibility and obligation considering they possessed close to 95 per cent of world's nuclear warheads. The steps suggested by them included the need to extend the key provisions of START 1 Treaty, increase the warning and decision times for launch of all nuclear-armed ballistic missiles to reduce the risk of accidental or unauthorized attacks, discard any operational plans for massive attacks that still remain from the Cold War days, undertake negotiations towards developing cooperative multilateral ballistic missile defense and early warning systems, provide highest possible security standards for nuclear weapons to prevent them from falling into wrong hands, strengthen the monitoring compliance with NPT, bring CTBT into effect and finally broaden the dialogue between the weapon and non-weapon countries. The "Group of Four" also called for developing an international system for managing the risks of nuclear fuel cycle.

This call by these four prominent U.S. citizens who enjoyed a considerable influence over the policy-making decisions had the necessary impact on the global disarmament debate. Many observers viewed this as a precursor to Obama's speech at Prague.

Response to Obama's Speech

Obama's speech evoked mixed reactions from around the world. Russia was specifically guarded in its response to Obama's call for a world free of nuclear weapons. In his speech at Helsinki on 20 April 2009 President Dmitry Medvedev said that a number of preconditions would have to be met before a nuclear free world could become a reality. These preconditions put forward by Medvedev included preventing the militarization of space, ensuring that reductions in nuclear weapons is not accompanied by development of strategic systems as this would amount to an unequal exchange and finally, ensuring the impossibility of creating the so-called recoverable nuclear capabilities.

Medvedev also expressed his deep concern over the anti-ballistic missile shield that had been vigorously promoted by the previous Bush administration and said that it damaged the system of checks and balances in the field and complicated the prospects for nuclear disarmament further.

Apart from the official reactions, a whole body of scholarship was dedicated to understanding the reasons that led to the revival of the nuclear disarmament discourse in U.S. policy circles. With the end of the Cold War, the nuclear disarmament debate made a comeback in the global nuclear discourse but not much could be achieved in the first decade and a half. However, with the increasing activity of non-state actors the fear of the nuclear weapons falling into the hands of terrorist groups like al Qaeda became more and more real which made many experts including the “Group of Four” and later Obama question the relevance of nuclear weapons as a deterrence force. Walker (2009:12) says the return of a mood of anxiety about future chaos and catastrophe, accompanied by fears of a looming loss of control over the dynamics of nuclear acquisition and use, provided the first explanation for the elevation of nuclear disarmament in U.S. policy discourses and added that there was a fear that the past approaches to sustenance of international nuclear world i.e. deterrence, arms control and non-proliferation would not be much useful in face of nuclear terrorism. The “Group of Four” had also expressed the same fear when they said that the terrorist groups with nuclear weapons would be outside the deterrence circle.

Walker holds the fear of loss of control over the nuclear weapons to terrorist groups along with three other factors as responsible for Obama’s speech on elimination of nuclear weapons. The second reason, according to Walker, for Obama’s call for global nuclear disarmament was the doubts expressed by many over the strategic advantage of nuclear weapons in the contemporary times. U.S. enjoys a definite superiority over other countries when it comes to conventional weaponry, which it would not be able to exert much if other countries acquire even minor nuclear weapons. Experts including Paul Nitze have argued that U.S. would be able to achieve its objectives with the conventional weapons as well, so there was a need for ending reliance on

nuclear weapons for strategic purposes. Thus, in lieu of this argument Obama called for checking the spread of nuclear weapons and the associated technology to other countries and working for the goal of global nuclear disarmament. However, Walker, here is quick to point out that this very argument goes against the cause of nuclear disarmament as other countries would never allow U.S. a free hand in exerting its supremacy through its conventional weaponry and thus would maintain their nuclear weapons, however, little they may be.

Walker holds the desire to reinvigorate the NPT and other arms control measures as the third reason responsible for Obama's statement in Prague. As discussed in the previous chapter, disarmament and non-proliferation are closely tied to each other. Other non-nuclear countries would not for long tolerate America's policy of maintaining its nuclear stockpile while preventing other countries from acquiring the same. To check the spread of nuclear weapons to other states and ensure a successful regime of NPT, U.S. needs to embark on nuclear disarmament and subsequently reduce its stockpile of nuclear weapons.

According to Walker, the fourth reason for advocating nuclear disarmament has been the U.S. tradition of political idealism. We live in a dangerous world where danger of terrorist groups, especially in weak states, acquiring nuclear weapons is more than ever. To tackle this very threat and call for a joint action, Obama laced his speech with both fear and hope.

“At a time of great confusion in the world politics, of a seemingly accelerating disorder in many contexts and regions, and of fears that disaster awaits around several corners, there is an understandable thirst for encompassing ideas that can bring coherence where there is incoherence, and hope (a key word in Obama's political lexicon) where it may be absent.” (Walker 2009:16)

The nuclear disarmament movement had been active since the 1945 nuclear bombing of the Japanese cities by the United States. However, movement had its own ups and downs owing to the different degrees of support it enjoyed

from respective leaders of the world's most powerful countries. Political will had always been the determining factor in all the past moves towards nuclear disarmament. That is why the public endorsement of the nuclear disarmament by the Obama administration gave a definite fillip to the entire movement. Krepon (2008) says that this fourth abolitionist wave that was ushered in by the "Group of Four" and later supported by Obama was very different and unusual from the previous three waves that had gripped the world earlier. The first wave, which according to Krepon was also the most powerful, came immediately after the use of the nuclear bomb by the U.S. in Japan and it evoked great fears amongst the people. The second and the third wave came during the first Reagan Administration and after the end of the Cold War respectively. Krepon says that each wave had been weaker and more ineffectual than the one before barring the fourth wave, which was unusual as it moved from the center outward, led by the "Group of Four" and it was their leadership, which gave the wave credible potential.

"When foreign policy realists who have served in positions of great responsibility in the Nixon, Ford, Carter and Reagan Administrations join with a Democratic presidential candidate like Barack Obama in calling for nuclear abolition, clearly something noteworthy is unfolding." (Krepon, 2008)

Another characteristic of this fourth wave, according to Krepon, was that it was powered by subtle, slow moving events rather than by sharp external shocks, as were the case in the previous waves. Also, the fact that all major powers faced two common enemies i.e. nuclear terrorism and the demise of the global nonproliferation system also made this wave special.

Thus, Obama's speech at Prague revived the whole nuclear disarmament debate. After an almost negative attitude that prevailed during Bush's tenure Obama brought a welcome relief and much cheer to the nuclear disarmament supporters. The initial success, although limited in many ways, in the form of New START, Nuclear Security Summit, a new Nuclear Posture Review further reposed the faith of the world community in Obama's intentions. Dhanapala (2011:3) says that even though Obama's speech failed to cast a

spell over the international community, the nonproliferation regime made undeniable progress over the following year. However, Obama also had his own set of critics.

Rajagopalan (2010:34) questioned the very seriousness of Obama in pursuing his vision of a world free of nuclear weapons. It cannot be denied that on closer examination of Obama's speech as well the context in which the speech was made it becomes clear that only the wish for a safer world did not drive Obama towards publically endorsing the nuclear disarmament goals. Rajagopalan says that Obama's soaring rhetoric at Prague hid a somewhat "baser and narrower" national interest of the U.S. administration. Many observers including supporters of Obama have accepted the fact that the growing concern of threat of nuclear terrorism and uncontrolled nuclear proliferation, ultimately made Obama advocate total elimination of nuclear weapons at Prague as the former two could prove to be a major security threat for US. Rajagopalan says that as such there was nothing wrong with security concerns driving nuclear disarmament but the fact that Obama's call was not based on a moral revulsion against nuclear weapons, as was the case with Jawaharlal Nehru, Rajiv Gandhi or Ronald Reagan, made one suspicious that once the security concerns of U.S. would get addressed then nuclear disarmament would again be relegated to the background or as Rajagopalan himself says "consigned to slightly left-wing academic conferences".

"It is difficult to overcome the feeling that his speech was nothing more than serious than the opening salvo of a public relations campaign aimed at rebuilding the non-proliferation regime and specifically aimed at burnishing American credentials in time for the NPT Review Conference next year."
(Rajagopalan, 2010:34)

Urata (2009:6) says that throughout Obama's speech, the overall message was maintaining the status quo would be the Obama administration's way to deal with the nuclear threat. Landau (2011) says that although the whole disarmament agenda adopted by Obama was laudable but the underlying rationale behind his statement - to undermine the double standard accusation that US often faces from other countries over its nuclear proliferation policies-

weakens the entire position taken by Obama. Landau says that Obama's position did not establish a clear link between nuclear disarmament and the enhanced ability to confront countries like Iran and North Korea that have dangerous nuclear ambitions. In fact, according to Landau, it remains unclear that how rogue countries could be convinced to relate more seriously with US after the latter had demonstrated greater commitment to equality in the nuclear realm. This relation hadn't been clearly established by the Obama administration. Further, Landau (2011:18) says that "across the board disarmament" stand of the current administration could prove to be problematic as it brought a shift in the administration's non-proliferation priorities as the latter instead of directly dealing with the actual proliferators, preferred to work on broad multilateral treaties. This could prove dangerous in the long run as proliferation of nuclear weapons to defiant states and groups constituted the main threat to the world nuclear order and there was an urgent need to deal with these countries on one on one basis.

"While advancing the goal of a nuclear-free world is admirable, the interim period demands an interim logic, and close attention must be paid to aligning all the relevant components in a coherent and convincing strategic posture."
(Landau 2011:24)

On the other hand, Schachter (2011) says that some of the goals put forward by Obama at Prague were at odds with each other. There was an inherent tension between Obama's goal of total nuclear disarmament and maintaining an effective deterrence. Schachter says that that the way the administration's disarmament goals had been proceeding it could weaken the very deterrence regime that had prevented the breakout of any nuclear war. According to Schachter, if two countries kept on reducing their nuclear weapons then a stage would be reached where deterrence would no longer prevail and it would become appealing to attack a country with nuclear weapons as there would be no fear of similar nuclear retaliation.

"It is unclear how supporters of total disarmament intend to avoid the dangerous point where the sides have the greatest incentive to strike first."
(Schachter 2011:31)

Secondly, Schachter argues that for deterrence to be effective, the threat emanating from it should be unambiguous. However, the administrations' stance of reducing the reliance on nuclear weapons and at the same time maintaining an effective deterrence sends mixed signals to potential proliferators and this could lead to greater proliferation of nuclear weapons.

However, despite the many criticisms that Obama and his policies were subjected to, successful conclusion of many agreements and conferences relating to arms control and nuclear disarmament after the speech at Prague lent some credibility to the bold vision that Obama had publically espoused at Prague.

Post- Prague Achievements of Obama

Despite being subjected to many criticisms and a general pessimistic attitude, Obama's speech revitalized the entire nuclear disarmament movement. His speech was followed by a flurry of activity in the research circles leading to many conferences and debates. Obama stuck to his promise of taking up the issue of nuclear disarmament seriously and negotiated an arms reduction treaty with Russia in the form of New START. The administration also released its Nuclear Posture review in 2010, which clearly reflected Obama's Prague vision. In addition to this, the nuclear disarmament enthusiasts also witnessed the successful conclusion of Nuclear Security Summit and NPT Review Conference in 2010, which clearly demonstrated Obama's commitment to the goal of nuclear disarmament. These four major developments have been discussed in a detail in the following section along with their criticisms.

1) New START

New START or new Strategic Arms Reduction Treaty was signed between US and Russia on 8 April 2010 in Prague. The New START replaced the 1991 agreement, which was slated to expire on 5 December 2009. This new treaty reduced the nuclear warheads of both the countries by almost two third of the original START treaty. According to the Congressional Research

Service (CRS) Report (Woolf 2010) the New START Treaty limited each side to no more than 800 deployed and non-deployed ICBM, SLBM launchers and heavy bombers equipped to carry nuclear armaments. The treaty also limited each side to no more than 1,550 deployed warheads. The report further points out that the monitoring and verification regime under the New START Treaty had also been streamlined to make it less costly and complex than the regime under START. This new treaty could be signed only after prolonged discussions and debates between the two sides on a number of contentious issues.

One of the main points of contention between Russia and U.S. during the negotiations was the United States' Missile Defense Program, which Russians claimed was targeted against them. After prolonged discussions it was decided to put the Missile Defence Program in the Preamble of the Treaty which although would have been legally non-binding but would have still provided Russia with the power to claim any implementation of the Missile Defence Program by U.S. as a violation of the Treaty (Malz-Ginzburg 2011:44). The Obama administration had to face a lot of flak in the Congress as the opponents to the treaty criticized it for undermining the US security interests by limiting the missile defence program and not limiting Russia's tactical weapons where the latter enjoyed a supremacy over US. Mitt Romney emerged as one of the bitterest critics of the New START Treaty. Romney (2010) in an article to a newspaper criticized the New START for including the Missile Defence Program in the preamble of the Treaty and accused U.S. of acceding to Russia's insistence that there was an interrelationship between strategic offensive weapons and missile defense, which amounted to a major concession to Russia. Romney further said that the treaty gave huge nuclear advantage to Russia over US by ignoring the tactical nuclear weapons where Russia enjoyed superiority over the United States. Romney acerbic in his comments said that Obama was not only badly out-negotiated at the meeting but also the treaty was the worst foreign policy mistake of Obama's administration. The Republican-Democrat rivalry was at full display in these verbal attacks that were launched by Republican Romney against the Democrat Obama. However, Obama received support from unexpected

quarters as Richard Lugar, a Republican, criticized Mitt Romney for his stance against the New START Treaty.

In his reply to Mitt Romney, Richard Lugar (2010) termed his criticism of New START as a hyperbolic attack launched on the Obama administration and wrote that not only Russia's tactical nuclear weapons had very short ranges but were either used for homeland air defense or were devoted to the Chinese border or were in storage. Lugar further added that the non-signing of the treaty would have meant giving up the human verification presence in Russia that had contributed greatly to strategic stability under the expired START I Treaty.

The academic circles also had their own take on this latest arms control treaty between US and Russia. Malz-Ginzburg (2011) says that the choice of venue for the signing of the New START treaty was a "demonstrative gesture" on the part of the administration to signify Obama's commitment to the nuclear disarmament goals but at the same time the author cautions that disarmament and arms control measures are totally different kinds of agreements as the latter are more of a measure to stabilize the relations between the states. He criticizes the Obama administration for confusing arms control with disarmament measures by portraying the New START as a disarmament treaty on one hand and on the other hand, looking it as a way to reset the relations between US and Russia. Malz-Ginzburg further criticizes the New START regime by saying that the new treaty not only refrained from declaring any unprecedented cuts in the nuclear arsenal of both the countries but also kept the tactical nuclear arsenal out of the discussion which kept American nuclear bombs stationed in Europe out of the ambit as the latter aren't seen as strategic weapons. Warren (2011:451) says that the reduction in the nuclear arsenal of both the countries required under the New START were only moderate in nature.

However, despite this criticism, the US Senate ratified the treaty on 22 December 2010. The 2010 Nuclear Posture Review tried to allay some of the fears expressed by the opponents by declaring that even with reduced nuclear arsenal US would be able to maintain a stable deterrence as it could be

maintained despite a reduction in the U.S. strategic delivery vehicles – intercontinental ballistic missiles (ICBMs), submarine-launched ballistic missiles (SLBMs), and nuclear-capable heavy bombers – by approximately 50 percent from the START I level, and reduction in accountable strategic warheads by approximately 30 percent from the Moscow Treaty level.

2) Nuclear Posture Review (NPR) 2010

The Nuclear Posture Review (NPR) 2010 was a clear manifestation of the vision of a “world free of nuclear weapons” that had been espoused by President Obama in Prague in 2009. The 2010 NPR released by the US Department of Defense to declare United States’ nuclear weapons strategy for the coming decade concretized some of the goals and measures that Obama had put forward in his speech by adopting them as part of future nuclear strategy of the country. In addition to this, the Nuclear Posture Review of 2010 was a clear break from the previous Review as well which was released during Bush’s presidency. In NPR 2010 there was a reduced stress on nuclear weapons as part of the security strategy of U.S. as compared to the last NPR. However, the continued role of nuclear weapons as an effective deterrent against enemy attacks in US security strategy marked the point of similarity between the last two NPRs.

Expanding on Obama’s call for elimination of nuclear weapons, the 2010 NPR listed down five key objectives that the administration wished pursue in the coming decade:

1. Preventing nuclear proliferation and nuclear terrorism;
2. Reducing the role of U.S. nuclear weapons in U.S. national security strategy;
3. Maintaining strategic deterrence and stability at reduced nuclear force levels;
4. Strengthening regional deterrence and reassuring U.S. allies and partners; and

5. Sustaining a safe, secure, and effective nuclear arsenal.

The report recognizing nuclear terrorism and nuclear proliferation as the two biggest challenges to the security of the country added that there was a need to realign the country's nuclear policies and posture to today's national security priorities i.e. preventing nuclear terrorism and nuclear proliferation. The Report (2010:vi-vii) further said the U.S. approach to preventing nuclear proliferation and nuclear terrorism included three key elements:

- 1) To strengthen the nuclear non-proliferation regime and the NPT by checking the nuclear ambitions of North Korea and Iran, strengthening International Atomic Energy Agency (IAEA) safeguards, enforcing compliance, preventing illicit nuclear trade and promoting peaceful uses of nuclear energy without increasing proliferation risks.
- 2) Secondly to take steps to secure all vulnerable nuclear materials worldwide in four years. The Report said that there was a need to accelerate the Global Threat Reduction Initiative and the International Nuclear Material Protection and Cooperation Program and in lieu of this the funding for Department of Energy's Nuclear Nonproliferation Programs had been increased by more than 25 percent for the year 2011.
- 3) Thirdly, to strengthen NPT and secure nuclear materials worldwide and pursue arms control efforts vigorously. These efforts would include the New START, ratification and entry into force of CTBT and negotiation of a verifiable Fissile Material Cutoff Treaty (FMCT).

The NPR stressed on the continued relevance of nuclear deterrence for country's security and said that the nuclear forces would continue to play an essential role in deterring potential adversaries and reassuring allies and partners around the world. However, at the same time the report recognizing the realities of today's world order i.e. growth in unrivaled conventional military capabilities of U.S., improvements in missile defenses and end of Cold War rivalries said that US could now fulfill its objectives at much lower nuclear force levels and with reduced reliance on nuclear weapons.

“Therefore, without jeopardizing our traditional deterrence and reassurance goals, we are now able to shape our nuclear weapons policies and force structure in ways that will better enable us to meet our most pressing security challenges.” (NPR 2010: v)

Thus, here the report concurred with Obama’s view that there was a need to reduce the salience of nuclear weapons in security policies of the country and to move gradually towards reduction of elimination of nuclear weapons. The NPR also called for pursuing the Stockpile Management Program for extending the life of U.S. nuclear weapons so that the need for developing new nuclear weapons could be curtailed.

The Report also said that the world could move towards zero nuclear weapons if there was a strategic stability in relations with Russia and China and there was improved transparency and mutual confidence between the countries. For this, the report suggested that there was a need to reduce the salience of nuclear weapons in international affairs.

“...Moving step-by-step toward eliminating them, we can reverse the growing expectation that we are destined to live in a world with more nuclear-armed states, and decrease incentives for additional countries to hedge against an uncertain future by pursuing nuclear options of their own.”(NPR 2010:vi)

The Report also narrowed down the situations during which United States would use or threaten to use the nuclear weapons against a country. It said United States was now prepared to strengthen its long-standing “negative security assurance” by declaring that the United States would not use or threaten to use nuclear weapons against non-nuclear weapons states that were party to the NPT and in compliance with their nuclear non-proliferation obligations. Hoffman (2010) says that United States did not brandish the nuclear sword in every direction and declared not to use it against countries that followed the rules of NPT. Even, in case of chemical and biological attacks against the U.S. or its allies, America would retaliate only with devastating conventional weapons. This was one significant respect in which the 2010 NPR differed from the previous review as in the latter one Bush had

threatened to use nuclear weapons against all kinds of targets, including any attack involving nuclear, chemical or biological weapons aimed at the United States or its allies (Hoffman 2010). The 2010 NPR only listed down a “narrow range of contingencies” in which U.S. would resort to use of nuclear weapons.

Farley (2010) says that the NPR came under attack from both the arms control activists as well as conservatives as both weren't much happy with the document. While the former were dismayed because they felt that the review had taken only hesitant steps towards non-nuclear world, the latter were unhappy over the “no first use” policy against states that attacked the U.S. with chemical and biological weapons. Farley says that both the US national security architecture including Pentagon, the State Department etc. and international architecture like NATO smack of Cold War mentality, which still views Russia as more of an adversary than a partner and from the NPR document it did not seem that Obama would have the stomach to fight its own entrenched bureaucracy. This is the reason that despite acceptance of nuclear proliferation as well as terrorism as the two biggest threats the NPR document is replete with compromises, like, the Replacement Warhead program (RRW) gets the mission of extending the service life of the existing U.S. stockpile, tactical nuclear stockpiles continue to remain in operation etc. However, Farley is quick to point out that Obama's NPR represents a very measured step as on one hand it tries to push back Bush administration's desire to revolutionize nuclear-weapons doctrine, on the other hand restores the aspirational thinking about nuclear-weapons abolition.

Hoffman (2010) says that although the NPR 2010 was a good start but it still fell short of changing the status quo on critical issues that had been there since the Cold War. One issue had been to relieve at least the bomber leg of the land-sea-air triad that forms the basic part of America's nuclear strategy. However, the new nuclear strategy refrained from doing this. Also, the proposal that America would not be the first country to use a nuclear weapon against another country in case of a conflict was also unceremoniously dropped from the document. The NPR also decided to maintain the current

nuclear alert status quo despite many suggestions to the contrary by many experts including the “Group of Four”.

Walt (2010) as one of the most acerbic critics of NPR 2010, says that from a purely strategic viewpoint the new statement on future US nuclear strategy was meaningless and could also prove to be counter-productive. Walt says that despite all the promises made by Obama and the NPR, no potential adversary could be absolutely sure of U.S. sticking to its declared policy in the event of a war.

“Because the prospect of nuclear use is so awful, no minimally rational aggressor is going to run that risk solely because of some words typed in a posture statement.” (Walt 2010)

Further leading his attack on the US administration, Walt says that U.S. policymakers never realize that the same arguments they use to justify our own nuclear arsenal could be used by other countries whose security was much more precarious than America's. Thus, how can the Iranian leadership be convinced to not pursue nuclear weapons program, living in such a dangerous neighbourhood, when US itself reserves the right to first use nuclear weapons against another country.

Kapur (2011:76) calling the NPR as more posturing than a review writes that the occurrence of a nuclear free world under the current NPR was not even possible as despite the many desires expressed by Obama to reduce the salience of nuclear weapons in the country's security strategy, US would still maintain strategic capabilities sufficiently large and sophisticated to ensure robust levels of deterrence for both the United States and its allies. Kapur further says that although US moved closer to “no first use” policy under the NPR, it suffers from enough caveats to prevent the NPR from breaking any significant grounds.

However, despite the criticism, the Obama administration's NPR had its own set of admirers as well. Sagan (2011) says that Obama's policies declared in the NPR had a significant influence on the nuclear doctrines and postures of other countries. The Russian nuclear doctrine, which according to Sagan was

being modified for a prompt use of nuclear weapons in case of an attack, was revised after NPR 2010 and included a nuclear response only in case of attacks that threatened the very existence of the State. Similarly in response to US's new nuclear posture, many non-nuclear NATO allies of U.S. including Germany, Norway and Belgium pushed for removal of small number of tactical nuclear bombs remaining on US bases inside the NATO territories. According to Sagan the NPR also had a positive influence on the 2010 NPT Review Conference, which had been a failure in 2005 due to Bush's adamant behavior.

3) Nuclear Security Summit 2010

President Obama in his speech at Prague in 2009 had called for securing the nuclear materials worldwide to prevent the terrorist groups and the rogue states from laying their hands over some loose fissile material owing to some irresponsible handing of the latter. The 2010 NPR also lent a clear support for strengthening the security of the nuclear material and laid down the objective of achieving the same in the next four years. In lieu of this, President Obama convened meeting of more than 40 countries to discuss the ways to secure the nuclear material, which includes separated plutonium and enriched uranium. This meeting was called as the Nuclear Security Summit and it was held in Washington D.C. on 12-13 April 2010.

Malz-Ginzburg (2011:51) says that the Summit was designed in a way to bypass contentious subjects amongst the states and it was successful in achieving widespread agreement on improving the security of locations where nuclear materials were stored. An editorial in the Washington Post reported that although efforts to safeguard or eliminate the materials had been underway for years by the successive U.S. governments but they failed to yield the desired results as these were not only underfunded but also often treated as an afterthought by the administrations and even resisted by some foreign governments. Mr. Obama gave the required level of attention to the issue, which led to the successful organization of the Summit. Sheridan (2010) says that the summit was part of Obama's "nuclear spring" which was a broad

initiative to revive U.S. arms-control efforts and elevate the role of international treaties in U.S. nuclear weapons policy.

The Summit also had its own successes. Eight countries decided to remove all or some of their remaining nuclear material, 13 countries signed on to one of two major international agreements, and four joined the Global Initiative to Combat Nuclear Terrorism (Golan-Vilella et al 2011:3). Further, an accord between Russia and U.S. to dispose off 34 tons of plutonium, which is equivalent to 17,000 nuclear weapons also came into force.

However, many experts criticized the Summit for producing a non-binding document and making the commitments voluntary in nature. However, Malz-Ginzburg says that the importance of this summit lied in strengthening Obama's narrative on implementation of his vision.

4) NPT Review Conference 2010

The Nuclear Nonproliferation Treaty or NPT has been the centerpiece of the nuclear non-proliferation regime that has been active since its adoption in 1970. To stabilize and strengthen this non-proliferation regime a Review Conference (Rev Con) is held every 5 years between the signatories to the treaty and the last conference to be held in 2010 was the eighth in series. The eighth Review Conference of the Nuclear Nonproliferation Treaty (NPT) was held in New York from 3 May 2010 to 28 May 2010 to discuss both the implementation of the terms of the NPT as well as discuss the proliferation of nuclear weapons that threatening to undermine the entire NPT regime. Already many experts including the "Group of Four" and leaders like Obama had expressed ample fear of nuclear weapons falling in the hands of terrorist groups and this provided the necessary context to the 2010 NPT Rev Con. In addition to this, the growing nuclear ambitions of countries like Iran and North Korea was another point of discussion in the Rev Con.

The 2010 NPT Review Conference was a much-anticipated event. There was a general excitement and a dread in the observers as the last 2005 Rev Con had proved to be a failure as it failed to produce a document in the end. Gupta

(2010:55) says that during the 2005 Rev Con the non-weapon states saw a lack of commitment and purpose in the behavior of the Nuclear weapon States towards nuclear disarmament which the NWS had promised at the 1995 Rev Con when the mandate of NPT was extended for an indefinite period. Thus, there was a lot of hope from the 2010 Rev Con as not only there was a change in leadership that was more forthcoming than the previous one but also there was a change in the global nuclear discourse which had been tilting heavily in the favour of nuclear disarmament.

“To begin, an international atmosphere conducive to multilateralism in general and nuclear disarmament in particular had undoubtedly been created prior to the conference.” (Dhanapala 2010:3)

The 2010 NPT was a definite success over the last one as it was not only able to produce a final document outlining the positions of countries on different issues relating to nonproliferation but it was also successful in building a consensus for establishing a WMDFZ (Weapons of Mass Destruction Free Zone) in the Middle East. All the countries promised to uphold the principle of non-proliferation, which has been the strongest pillar of the NPT regime since its establishment in 1970. The countries also promised to pursue compliance to the terms and conditions of the NPT through diplomatic means, which would be in accordance with the provisions of the Treaty and the Charter of the United Nations. One of the major achievements of the non-nuclear weapons states (NNWS) at the Rev Con was that they made the Nuclear Weapon States (NWS) reaffirm the commitment that the latter had made in 2000 Review Conference to completely eliminate the nuclear weapons. However, the NWS did not get themselves bound by any definite time line for the achievement of this goal, as was being demanded by many NNWS. An “action plan on nuclear disarmament” was also adopted at the conference, which called for greater transparency and effective verification in achieving deeper cuts in the nuclear arsenals. The declaration also called for bringing the CTBT into force, to diminish the role of nuclear weapons in the security policies, to de-alert and de-target nuclear weapon, to increase the transparency of NWS with regard to the number of nuclear weapons they

have, to recognize “the legitimate interest” of the NNWS in constraining the development and qualitative improvement of nuclear weapons (Dhanapala 2011:9).

In this chapter we analyzed how one momentous speech changed the course of the global disarmament movement for good. The critics may have berated Obama’s call for a “world free of nuclear weapons” for a variety of reasons but the fact remains that Obama’s public endorsement of this goal enthused the supporters of nuclear disarmament worldwide. The subsequent successful conclusion of different arms control agreements and disarmament movements only further reposed the faith of the American people in Obama’s intentions. However, to credit only Obama for the successful conclusion of these agreements would not be the complete truth. First, all the post-Prague meetings and conferences, barring the Nuclear Security Summit, were scheduled much before Obama endorsed the idea of nuclear free world. The START 1 was bound to expire by the end of 2009 and both U.S. and Russia had started their negotiations for the New START much ahead of the set date of its expiry. Thus, the conclusion of the New START in 2010, right after Obama’s endorsement, was more of a coincidence. Similarly, the NPT Review Conference was also due for 2010 considering that that last one was held in 2005 and the Rev Con is held after every 5 years. However, Obama’s conduct during all these conferences must be appreciated as he was much more forthcoming than his predecessor during the negotiations.

Further, the Nuclear Posture Review released by the Obama administration was both bold and conservative at the same time. The boldness of the document was reflected in its declaration to henceforth reduce the salience of nuclear weapons in US security strategy and limit the conditions under which US could use nuclear arsenal against a country. However, his conservativeness stopped him from declaring a time bound phase out of America’s nuclear weapons. Thus, Obama despite his bold posturing failed to fully covert his vision into concrete actions.

In the next chapter, the study will carry out the analysis of the research questions and the hypotheses, which were propounded in the first chapter.

CHAPTER 4

CONCLUSION

The Nuclear Disarmament movement has had a long history. The issue of nuclear bombs and the need to eliminate them came into the public discourse when the twin nuclear bombings of Japanese towns by United States brought unprecedented destruction and death to the people. Since then the complete elimination of nuclear weapons became both the agenda as well as the cherished dream of groups like nuclear abolitionists. However, despite this early realization of the immense destructive capability of the nuclear weapons, total elimination of nuclear arsenal could never take place. In fact all through the Cold War period the importance of nuclear weapons only grew in the international politics. One major reason for this lack of commitment and consensus over global nuclear disarmament movement was the lack of a political will. All through the Cold War, the superpower rivalries and mindless need to militarily surpass the adversary undermined any effort in the direction of nuclear disarmament. National interest and security concerns became the determining factors in a country's approach towards nuclear disarmament.

The justification for this was provided by many academic inventions that included concepts like nuclear deterrence, mutually assured destruction and so on and so forth. However, what was surprising was that even after the end of the Cold War and its rivalries with the dissolution of the Soviet Union in 1991, the nuclear weapons continued to figure prominently in the security discourse of countries and there was an increased proliferation of the nuclear weapons. The 21st century also brought newer threats to the world in the form of terrorism. Fears of nuclear terrorism and uncontrolled nuclear proliferation especially to rogue countries made many revert to the idea of nuclear disarmament again and this brought the entire movement back to the forefront.

The purpose of this study was to analyze the nuclear disarmament movement from a historical perspective. In addition to this an attempt was made to understand some of the prevalent debates in the American political and academic circles on nuclear

disarmament and on its need in the current global order. These debates on nuclear disarmament have for long been active in the policy circles of the United States and have engaged the policy makers and academicians alike in a healthy exchange of ideas. However, to say that these debates always had a direct bearing on the U.S. nuclear policies would be a fallacy as the latter have more been an outcome of official reaction to international and domestic security environment. In addition to this, the study also analyzed President Obama's stance on nuclear disarmament, which he had put forward in a speech at Prague and the official and non-official reactions to it.

In this final chapter, the research questions and hypotheses that were put forward in the beginning of the study have been addressed, with the help of the available literature.

RESEARCH QUESTIONS

The first research question asked whether Obama's proposal for achieving "global zero" was driven by national security interests or by the larger goal of nuclear disarmament. Analysis of the then security environment as well as the study of available literature suggests that Obama's speech was more an outcome of the concern for state security rather than about achieving the ideal goal of nuclear disarmament.

In order to make a genuine assessment of Obama's proposal of a "world free of nuclear weapons" there is need to look deeply into the contents of the speech and more importantly analyze the context in which it was made. Obama in his speech at Prague had touched upon many issues like nuclear terrorism and uncontrolled nuclear proliferation that had a direct bearing on the security of the country. In fact a substantial portion of his speech was related to issues that were linked to the security of the country either directly or indirectly. However, before we go into details there is a need to the background and the context in which the speech was made.

In 2007 and 2008 the "Group of Four" in a series of articles to a newspaper had highlighted the dangers of uncontrolled nuclear proliferation to terrorist groups and rogue states. They also called for the enforcement of better non-proliferation

measures and reduction in the salience of nuclear weapons in security discourse of the countries. These articles again revived the debate on the need for nuclear disarmament which had earlier been relegated to the background during the previous Bush administration. More importantly the “Group of Four” were successful in sensitizing the people and the policy makers about the danger nuclear weapons posed if they fell into the hands of non-state actors like the terrorist organizations. Obama also later acknowledged the role of these articles in influencing the opinion in the policy circles. The serious issues raised by these former four statesmen in their writings could not have been easily ignored by any U.S. president especially when the country had already borne witness to one of the worst terrorist attacks on its soil. No U.S. president would have liked a repeat of such an event at least during his term in the office.

As the president of the United States Obama understood very well that security of his people came first. Although the issue of nuclear disarmament had always been dear to Obama’s heart and even as the presidential candidate Barack Obama had strongly supported the cause of nuclear disarmament but to say that Obama’s overriding concern for a safe world drove him to make the now famous speech would be a fallacy. Throughout his public address at Prague Obama’s concern for American security was quite apparent. Obama in his speech had repeatedly expressed the fear of terrorists buying, stealing or building the nuclear weapons and to contain the spread of nuclear weapons and the related technical knowhow such non-state groups Obama strongly advocated strengthening of the NPT regime. He also said that there was a need to secure the nuclear material in the world so that they did not fall into irresponsible hands. These issues raised by Obama at Prague quite openly showed that security concerns were topmost on his mind when he called for elimination of nuclear weapons at Prague.

Further, although Obama’s speech on nuclear disarmament was laced with optimism for a nuclear free world he made no overriding commitment on the basic pillars of NPT in his speech. In addition to this, despite calling for global nuclear disarmament and pledging to reduce the number of nuclear weapons eventually Obama added that U.S. would keep the nuclear weapons as long as other countries had them. He

maintained that as long as the nuclear weapons would exist the US would keep a sufficient arsenal for the purpose of deterrence to protect itself and its allies.

In the changed international environment new challenges and threats had emerged for the United States. It was widely recognized in the U.S. policy and academic circles that the new threats on the form of terrorist organizations and defiant rogue states could not be deterred by nuclear weapons alone. The “Group of Four” had also said in their articles that these non-state groups were outside the scope of deterrence. Thus, Obama’s approach to tackling this threat included reduction of nuclear weapons (and their eventual elimination) coupled with strong non-proliferation measures and stricter arms control measures. Moreover, the Obama administration realized that the U.S. could easily fulfill its security commitment with its superior (in fact unrivaled) conventional weaponry and missile defense system that also offered more flexibility of response and greater precision. Thus, in Obama’s call for eliminating nuclear weapons there was an apparent belief that without these weapons U.S. would not only be more secure but would also be able to maintain its supremacy through its conventional weapons alone.

Further to assume that Obama had successfully pursued his vision of total nuclear disarmament by concluding the New START with Russian and successfully convening the Nuclear Security Summit and the NPT Review Conference would again be far from the truth. The START 1 was bound to expire by the end of 2009 and both U.S. and Russia had started their negotiations for the New START much ahead of the set date of its expiry. Thus, the conclusion of the New START in 2010, right after Obama’s endorsement, was more of a coincidence. Similarly, the NPT Review Conference was also due for 2010 considering that that last one was held in 2005 and the Rev Con is held after every 5 years. With the conclusion of such an important agreement and conference it was only logical for the U.S. to utilize the moment for relieving itself from the double standard allegation that it had faced from other countries on its nuclear policies and thus raise its international standing on the issue of nuclear disarmament. Thus, as regards the first research question the answer lies in the affirmative i.e. Obama’s proposal for achieving the “global zero” was driven by national security interests than by the larger goal of nuclear disarmament.

This brings us to the second research question which asked if President Obama's approach was any different from the policies followed by the previous administration. There is no doubt that Obama's approach was significantly different from that of his predecessor. Never before had an American President offered such a proposal to the international community at such an open forum. Obama publically endorsed the goal of nuclear disarmament and committed his administration to work for it. Even after his Prague speech Obama tried to work on most of his promises. A few significant departures from the policies of previous administrations are mentioned below. Obama in his talks with the 'rogue' states adopted a more diplomatic approach than his predecessor. Bush administration was often accused of being confrontational when it came to dealing with such states. Bush worked more unilaterally in most of the cases while Obama's approach was more multilateral. Further, Obama gave priority to negotiations and dialogue over the coercive methods.

On nuclear weapons the Bush Doctrine renewed the importance of nuclear weapons while Obama had promised to reduce the salience of nuclear weapons in the security strategy of the country. Obama further raised the threshold of use of nuclear weapons while in the Bush administration the threshold had reached a very low level.

On the issue of CTBT, Obama had promised that his administration would work for its ratification. On the other hand, Bush administration had maintained that it would not go for its ratification. In the case of ballistic missiles the Bush administration had walked out of the ABM treaty and had strongly pursued the Ballistic Missile Defense Program while Obama, in spite of a lot of criticism from Republicans agreed to put the Missile Defense Program in the Preamble of the New START Treaty which although would have been legally non-binding but would have still provided Russia with the power to claim any implementation of the Missile Defense Program by U.S. as a violation of the Treaty.

However, policy changes cannot always be dramatic. There is always continuity and change. Obama administration cannot be expected to make extreme departure in such a short period of time especially when it is facing multiple challenges at the same time.

The third research question asked if the Nuclear Posture Review 2010 was a significant departure from the previous Review? The answer to this question is both yes and no at the same time because although the NPR 2010 was a departure from the previous review but it was certainly not a significant departure. It was a departure in the sense that the Review had reduced the salience of nuclear weapons in the U.S. security strategy and had also trimmed down the occasions in which the U.S. would have responded with a nuclear weapon. The new Review listed down five objectives that the administration wished to pursue in the direction of nuclear disarmament in the coming decade. It certainly raised the threshold of the use of nuclear weapons which had been substantially reduced to a very low level by the Bush administration.

However, it was still not a significant departure because the role of nuclear weapons still remained central to the US strategy though the role was to be reduced later in the future. The function of nuclear weapons as a deterrence force was still highly valued. The current NPR also maintained that the United States might use nuclear weapons in 'extreme circumstances' and in order to protect its 'vital interests'. However, these circumstances and interests were not clearly specified which left a considerable scope for guessing.

The other important thing to note in the 2010 NPR was that the US still maintained its first use policy in case of nuclear weapons. This was kept in the document in spite of huge criticism. The reluctance on the part of administration to drop the first use policy and instead adopt a no first use policy showed that the US wanted to keep its option open and in any case did not want to tie its hands. Thus, it would not be wrong to say that the Obama administration kept a lot of key provisions in its nuclear posture similar to the previous one and so therefore it was not a significant departure from the Bush administrations' NPR.

This brings us to the fourth and the final research question which asked if the U.S. superiority in conventional weapons acted as a roadblock in the realization of the "Global Zero". The presence of superior conventional weaponry along with an advance ballistic missile system which formed a dyad of forces offered U.S. a far more flexible and precision attack capability. It was because of this unrivaled conventional weaponry that the U.S. could think of reducing its nuclear arsenal

without compromising on its security. In fact it is argued that because of this superiority in conventional weapons the U.S. was leading the nuclear disarmament crusade. In a world without nuclear weapons the US could possibly enjoy a far greater dominant military position.

This conventional superiority is certainly not viewed with comfort by most of the nations. The Russian government relies heavily on the nuclear weapons for their security because of their dwindling conventional weapons. It would certainly like to keep nuclear weapons to make up for their poor conventional weapons. China, on the hand, also has no match for the United States' conventional weapons and ballistic missiles and thus keeps nuclear weapons for the purpose of deterrence. If one goes by the realist logic then states go nuclear in order to ensure safety. With the conventional weapons superiority of the US, states are less likely to give up their nuclear weapons. In fact the opposite seems more likely. Thus, definitely the conventional weapons superiority of United States acts as a roadblock to the realization of goals of nuclear disarmament.

TESTING THE HYPOTHESIS

The hypotheses that President Barack Obama's "global zero proposal" had not substantially altered the US position/policy on nuclear weapons stands justified in the light of the available literature.

The impact of "global zero proposal" of Obama on the US position /policy on nuclear weapons could be assessed from the analyses of subsequent policy or posture changes that had taken place.

- 1) Policy changes with respect to the use of nuclear weapons.

The NPR 2010 had mentioned a range of scenarios under which the US could attack another country with nuclear weapons. Though the number of such scenarios or occasions had been trimmed down but still a lot of options were kept open where U.S. could use the nuclear weapons. Further, US also maintained its first use policy and thus kept its options open.

2) Importance and role of nuclear weapons.

U.S. even though asserted that the salience of nuclear weapons would be reduced in the future, it continued to value deterrence by nuclear weapons very highly. It maintained that till the time nuclear weapons would exist in the world the US would maintain a safe and secure arsenal for deterrence purposes.

3) Size of the nuclear arsenal and the level of alertness

U.S. also committed to reduce the size of its nuclear arsenal as per the New START but this reduction agreement was negotiated before the “global zero” proposal was made therefore it cannot be concluded that this reduction was a result of the proposal. Apart from that the U.S. kept a huge nuclear arsenal at hair trigger alert level. In spite of the dangers the policy was continued which reflected United States’ continued reliance on its nuclear weapons.

Thus, in the light of the above arguments the hypothesis that President Barack Obama’s “global zero proposal” had not substantially altered the US position/policy on nuclear weapons stands validated.

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