



Nuclear Non- Proliferation





Introduction

The creation and proliferation of nuclear weapons in the second half of the twentieth century heralded the beginning of a new age of technology, but also brought with it a new threat to mankind capable of the destruction of all mankind without adequate controls. The proliferation of nuclear weapons has presented one of the preeminent security challenges facing the international community. Thus, the UN has implemented numerous resolutions, treaties and international laws on the issue of nuclear non-proliferation because of the immense destructive power of nuclear weapons and the complexity inherent in ensuring that nuclear technology is used for safe and peaceful purposes and not for military applications (Cirincione 5-6).

Currently, the International Atomic Energy Agency (IAEA) estimates the total number of known nuclear weapons in existence of approximately 27,600 nuclear weapons. This quantity of nuclear weapons poses an existential threat to humankind; the destructive potential of these 27,600 weapons is more than enough to destroy all human life (IAEA). Despite this threat, non-nuclear weapon States have attempted to acquire and develop nuclear weapons due to its ability to enhance military strength. At the same time nuclear weapons States, such as the US, Russia, and China have been reluctant to reduce the number of nuclear weapons in their arsenals due to its ability to enhance military strength. Thus, nuclear non-proliferation has been a challenge to achieve for both nuclear weapons States and non-nuclear weapons States.

Statement of the Problem

The challenge with nuclear arms nonproliferation is felt both by nuclear weapon States (NWS) and non-nuclear weapons States (NNWS). The relatively few nuclear weapon States (e.g. US, Russia, China, etc.) are reluctant to take active steps to reduce their nuclear arsenals for a number of reasons. One reason is that nuclear weapons States do not want to leave themselves vulnerable to the potential threats posed by other NWS' who could attack them and thus will not reduce their nuclear weapons beyond the reductions that other states agree on. Secondly, nuclear weapons provide nuclear weapons States with additional power that makes their opinions have more weight than if they did not possess nuclear weapons because they have the power to intimidate non-nuclear weapon States provided they are not counter-balanced by another nuclear weapon State opposite them. On the other hand, non-nuclear weapon States (NNWS) feel militarily disadvantaged because they lack the power of nuclear weapons, which can act as a powerful deterrent to conventional military conflicts (as will be discussed later). Thus, many non-nuclear weapon States feel that a dichotomy of nuclear "haves" and "have nots" has been created.

The idea of *deterrence* is the mainstream theory which explains what prevents nuclear war from occurring. According to deterrence theory, nuclear weapon States justify their own possession of nuclear arms as a way of preventing a nuclear strike against their soil because the consequences of a strike would result in an enormously





destructive second strike. It is argued that this second strike capacity is crucial to maintaining peace between nuclear states because the *mutually assured destruction* of a nuclear war that inevitably leads to an apocalyptic scenario that would mean the end of mankind. The high stakes posed by the use of nuclear weapons therefore ensures that nuclear weapons are not used as long as second strike capability is maintained.

Scholars note that the existence of nuclear weapons creates a nuclear paradox. The paradox is created from the fact that nuclear deterrence states the only reason for the existence of nuclear weapons is to threaten the use of nuclear weapons so that nuclear weapons are not used (Sauer 1). If it is true that the only reason for nuclear weapons to exist is to ensure that they are not used, then they could just as easily not exist because the nonexistence of nuclear weapons would indubitably result in nuclear weapons not being used. As Tom Sauer states, “The threat to launch nuclear weapons is great [and unnecessary] if one is not prepared to use them” (Ibid). This viewpoint notes that the stabilizing effect that is claimed by proponents of nuclear weapons for deterrence purposes is an unsteady and overstated effect which invites nuclear weapons use.

Some have argued that ensuring a rational leader’s control of nuclear weapons would prevent the use of nuclear weapons. However, the threat posed by nuclear weapons is not determined by who leads a nuclear weapon State, but increases as a result of the number of weapons in existence because it is more difficult to maintain control of them and monitor their movements. Thus, effective reductions must be dealt with by all nuclear nations

to control the flow of nuclear weapons themselves and the uranium fuel that is used to create them. Furthermore the number of nuclear arms in existence also has the potential for nuclear weapons to fall into the hands of terrorist organizations. Since terrorist organizations act without allegiance to the interests of other states the potential of terrorist organizations acquiring nuclear weapons sidesteps the deterrence debate entirely. A single nuclear explosion on a major city by terrorists groups who acquired a single nuclear weapon would wipe out a large population and create long term health risks due to radiation fallout. Thus, maintaining control of the large number of nuclear weapons poses in existence poses the central challenge of nuclear non-proliferation, and explains the many international efforts towards nuclear reductions and disarmament. Yet, there remains the need to prevent the creation and development of new weapons by non-nuclear weapons States as this would increase the number of deterrent relationships, increasing the likelihood of a nuclear attack.

The nuclear proliferation problem is very much a multilateral problem, meaning that one states’ policy actions are based on the relationships with the other nuclear States that are perceived as potential threats as well as non-nuclear States. Thus, any attempt at nonproliferation would have to address this multilateral nature of the nuclear weapons problem by acting multilaterally and acknowledging the multiple perspectives of the issue for both nuclear weapons states and non-nuclear weapons states.





History of the Problem

Development of Nuclear Weapons

Nuclear weapons were first created during World War II (WWII) by the US in The Manhattan Project. The Manhattan Project began in 1942 as a top-secret US military project to develop a nuclear weapon, in order to hasten the end of the WWII (Cirincione 19-20). The Manhattan Project brought together the backing of the US military with the most brilliant scientists of the day. Brig. General Leslie Groves oversaw the construction of the Pentagon and managed the Manhattan Project. J. Robert Oppenheimer was a physics professor from UC Berkeley who invented the cyclotron and managed the project (Nuclear Weapons Archive).

The science behind creating a nuclear weapon is to attempt to create a nuclear reaction called nuclear fission. Nuclear fission occurs when fissile material, (Uranium-235 and Plutonium-238) has its nucleus bombarded by a neutron which splits the element into two smaller elements. In the process the nucleus loses neutrons in the process and releases a large amount of energy while continuing the chain reaction (Cirincione 5-6). That small amount of mass that is lost thus releases a very large amount of energy as it is multiplied by the speed of light squared as in Einstein's famous equation, $E=mc^2$. This large quantity of energy was hoped to be harnessed in order to create a devastating weapon.

The main challenge the scientists of the Manhattan Project faced in trying to create this process of nuclear fission to create nuclear weapons is creating an adequate mass (critical mass) of radioactive fuel for neutron particles to

collide with U-235 and split the nucleus into different elements. Creating this mass of fissile fuel is extremely difficult and requires heavy machinery to separate isotopes of the extremely rare U-235 isotope from the more common U-238. Thus, the scientists of the Manhattan Project had to devise a variety of mechanical means to separate U-235 from other Uranium isotope that would not create a fission reaction.

These scientists came up with 3 methods that are still the only methods pursued to create fissile material for nuclear weapons. These 3 methods are: 1) gaseous diffusion 2) electromagnetic separation 3) nuclear reprocessing.

In gaseous diffusion Uranium is converted into a gas at varying rates and is then diffused across a barrier with holes to separate the two and yields only a small amount of U-235 and as such must be repeated thousands of times with hundreds of diffusion tanks and spanned a half-mile long at one plant (Ibid 7).

Electromagnetic separation is similar to the first method except for the way the Uranium is collected. In electromagnetic separation the Uranium is converted into a gas and moved into a curved vacuum tank where it passes through a magnetic field causing the heavier Uranium to collect at the walls of the tank and the lighter U-235 to collect in the middle where it can be siphoned off from the inside (Ibid 8). This process must be repeated thousands of times as with the gaseous diffusion to yield enough U-235 for a bomb (Bellis). Though labor intensive, the process of electromagnetic separation was employed to create the Uranium used for the Hiroshima bomb





and is still an effective method to enrich Uranium today.

The last method is called nuclear reprocessing, which attempts to create Plutonium-239 rather than Uranium-235. The process involves constructing nuclear reactors of U-238 where a controlled nuclear fission reaction can occur. Nuclear reactors normally produce small amounts of P-239 within the reactor rods, which must be treated and separated through a chemical reprocessing process with heavy machinery to maintain the power plant's effectiveness (Cirincione 9). Though this process takes place at all nuclear power plants to create *small amounts* of plutonium, but it can be sped up to turn nuclear power plants into variable factories creating *large quantities* of P-239 for nuclear weapons if a reactor is retooled. Since this method produces fissile fuel by using conventional peaceful reactors this method is often used by a State to surreptitiously produce fissile material for nuclear weapons.

After the Manhattan project had begun producing both U-235 and P-239 through varying methods, the bomb design process began. The first and least complex design that is still used today is the *gun-barrel design*, where two "sub-critical masses" of U-235 are brought together to form a critical mass of fissile material after a plug of U-235 is shot towards the masses from the end of a "gun-barrel" shaped tube. The plug is shot towards the mass of U-235 by a conventional explosive primer charge to begin the fission reaction (Ibid 10) This weapon can only use U-235 and is the most likely the type of weapon a terrorist

organization would attempt to use because it is relatively simple to create.

The second design is the *implosion assembly design*, which is both more complex and more destructive. This type of weapons design is the type that nuclear weapons States often produce because of its greater destructive power. The implosion assembly design is created by making "a sphere of bomb material surrounded by a tamper layer and layer of carefully shaped plastic explosive charges". At the core of this sphere is a small neutron emitter which begins the chain reaction (Ibid 11). This design results in a larger explosion than the gun barrel design because if the explosive charges are successfully synchronized it ensures all of the fissile fuel is used in the fission reaction.

Test and Use of the Nuclear Weapons

The scientists of the Manhattan Project pursued both bomb designs just as they pursued two methods of producing fissile material simultaneously. At this point the project was close to testing the bombs so they could be used against the Japanese. The gun-barrel bomb discussed above was so widely understood that it was never tested before being used on Hiroshima, but the implosion type plutonium bomb was newer and less understood and thus required testing. Thus, the first nuclear bombs test was conducted and carried out on July 15 1945. The so called Trinity Test fired the bomb at 5:30am and successfully detonated "turning dark into daylight in an instant" (Department of Energy, "The Trinity Test"). The explosion released 21,000tons of explosive power and was the first nuclear explosion (Ibid).





Less than a month after the Trinity Test the bomb was ready to be deployed and used against the Japanese. The site of the first military use of a nuclear weapon was Hiroshima due to its military importance with over 43,000 soldiers and numerous military factories (Department of Energy, "The Atomic Bombing of Hiroshima"). At 8:15 a.m. on August 5, 1945 the *Enola Gay* dropped "Little Boy," a 9,700-pound uranium bomb, over the city and "a huge explosion lit the morning sky as Little Boy detonated 1,900 feet above the city, directly over a parade field where soldiers of the Japanese Second Army were doing calisthenics. Though already eleven and a half miles away, the *Enola Gay* was rocked by the blast" (Ibid). Four days later the implosion type bomb "Fat Man" was dropped on Nagasaki and exploded with a force of 22,000 tons of explosives and at an altitude of 1,840 feet (MPHPA). The Japanese surrendered and ended the war in an address by Emperor Hirohito on August 14. The total result of both attacks was the immediate deaths of approximately 160,000 people.

Post-WWII Proliferation of Nuclear Weapons

After the tragic destruction of the Japanese cities of Hiroshima and Nagasaki at the end of WWII there was a great push by many states to develop nuclear weapons of their own. Following WWII there was a collective security movement with the creation of the United Nations and other international organizations. However, despite these efforts towards peace states also sought to develop nuclear weapons as US had done. The US and USSR began competing in a nuclear arms race to compete for supremacy in the international affairs beginning the bipolarity of the Cold War.

In this dangerous climate US President Eisenhower recognized the need to prevent the spread of nuclear weapons when he addressed the UN in December 1953 saying:

"It is not enough to take this weapon out of the hands of the soldiers. It must be put into the hands of those who will know how to strip its military casing and adapt it to the arts of peace. The United States knows that if the fearful trend of atomic military build-up can be reversed, this greatest of destructive forces can be developed into a great boon, for the benefit of all mankind."

In 1962, the Cuban Missile Crisis gripped the world in a precarious nuclear game of cat and mouse that nearly realized the worst fears of nuclear war, and illustrates the dangers of nuclear proliferation. It was instigated after American U-2 spy planes discovered that the Soviet Union had secretly moved missile systems capable of carrying nuclear warheads into Cuba for presumably offensive reasons (Weldes 23). For the next week there was a tense standoff between the Soviet Union, Cuba, and the US; this was due to a constant threat of nuclear war and at times, with escalating tensions before negotiations concluded successfully. As one US analyst stated:

"For thirteen days in October 1962, the United States and the Soviet Union stood "eyeball to eyeball," each other with the power of mutual annihilation in hand. The United States was firm but forbearing. The Soviet Union looked hard but blinked twice, and then withdrew without humiliation. Here is one of the finest examples of diplomatic prudence..."

Despite the prevailing diplomatic prudence of the Cuban Missile Crisis, deepening insecurities





of non-nuclear states led to increased nuclear proliferation and a desire to deter nuclear attacks by acquiring nuclear weapons and gaining second strike capability. With this escalation of nuclear tensions five states had become nuclear weapons States in 1964: the United States, France, United Kingdom, Soviet Union (USSR), and China. These states achieved this status by successfully developing and testing nuclear weapons (United Nations and Nuclear Non-Proliferation 5). By 2006 the number of nuclear weapons States had increased to 8 confirmed states with the development of nuclear weapons by India (1974), Pakistan (1998), and North Korea (2006) and South Africa who dismantled their nuclear weapons program (National Resource Defense Council).

Past UN/International Action

International Atomic Energy Agency (IAEA)

The United Nations has made many attempts to prevent the proliferation of nuclear weapons and promote the peaceful use of nuclear technology. One of the first attempts at institutionalizing the promotion of these goals was the creation of the International Atomic Energy Agency (IAEA). The idea of the IAEA was based on President Eisenhower’s speech to the General Assembly on December 8, 1953 where he conceived of the IAEA as an international bank that nuclear weapons states should place all of their weapons in the IAEA controlled bank to avert the possibility of nuclear war and allow for the peaceful harnessing of nuclear technology (Correra). Despite Eisenhower’s best attempts the nuclear

weapons States did not place all their weapons under the control of the IAEA as Eisenhower conceived it. Rather the general ideas were incorporated into the text of the IAEA Statute which declares the intent of the agency to be to: *“seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose.”*

Despite falling short of its full potential the IAEA has served a crucial role in promoting nuclear non-proliferation and the peaceful use of nuclear technology. Yet, at the same time these goals are complicated by the “dual use” of seemingly “peaceful” nuclear reactors. Nuclear reactors can be used not only to produce power for a State, but can also be modified to produce enriched fissile material for nuclear weapons as a byproduct of the nuclear reactions. For this reason the IAEA serves a vital role as the world’s nuclear inspectorate, inspecting nuclear programs in 145 countries to ensure their peaceful intent (IAEA, “IAEA: Our Work”). However, merely establishing the IAEA was not enough and required a treaty to ensure nuclear nonproliferation prevailed.

Nuclear Non-proliferation Treaty (NPT)

The NPT is the single most important international treaty regarding nuclear weapons and nuclear nonproliferation. The NPT was an agreement reached between nearly all nuclear weapons States and non-nuclear weapons States. As with the IAEA, the NPT seeks to promote the





peaceful use of nuclear technology without undermining the goals of peace and security; it was adopted on June 12, 1968 and entered into force March 5, 1970. The main aspects of the NPT include:

- Nuclear weapon States cannot transfer nuclear weapons to other states to encourage the production of nuclear weapons
 - Non-nuclear weapon States agree not to accept the transfer of nuclear weapons and not to seek aid or to produce nuclear weapons
 - Non-nuclear weapon States accept safeguards and inspections conducted by the IAEA under the auspices of the Statute of the IAEA in order to receive aid to harness the power of nuclear technology for peaceful purposes
 - The NPT does not prevent any state from harnessing the power of nuclear technology for peaceful purposes.
- Furthermore, States are not prevented from cooperating to further the development of the peaceful applications and development of nuclear technology.

In addition to the specific provisions of the NPT, parties to the NPT convene in a review conference held every 5 years to review developments related to nuclear nonproliferation and the NPT to make changes as necessary. In 1995 the parties to the NPT extended the treaty indefinitely to ensure the success of nuclear non-proliferation and prevention of nuclear war. Currently, preparations are underway for the 2010

NPT Review Conference in late April 2010. The conference will undoubtedly need to address the emergent security challenges presented by non-party states with nuclear weapons such as, North Korea who defiantly pursues testing of their nuclear weapons. It also appears issues such as preventing parties from withdrawing from the treaty will be an issue because of the policies of states like North Korea. Thus, the NPT Review Conference 2010 will be a defining moment for the NPT which has seen increasing strain in the last 5 years and will need to be vamped up to maintain its effectiveness.

Security Council Resolution 1540

Security Council Resolution 1540 is the latest in a series of actions that attempt to make individual states more accountable for their own security by preventing non-proliferation of weapons of mass destruction (WMD's) including nuclear weapons. SC Resolution 1540 acknowledges the threats posed by nuclear weapons if non-State actors, (i.e. "terrorists"), gain access to nuclear weapons. The longer nuclear weapons States hold onto nuclear weapons the more likely these weapons will fall into the hands of terrorists "directly" or "indirectly" (Sauer 35). The collapse of the Soviet Union presents a case where politically vulnerable nuclear weapons States are at risk that nuclear weapons from their nuclear arsenals may be stolen by non-State actors further increasing the likelihood that they will be used against States (Sauer 35). Thus this resolution has sought to bridge the gap in the NPT by acknowledging the need for preventive measures to force non-state Actors from acquiring nuclear





weapons and deciding that member-states should not help non-state Actors acquire or develop nuclear weapons.

Case Studies

United States and NATO

The United States was the first state to become a nuclear weapon State and also has one of the largest nuclear weapons stockpiles in the world with 10,600 total nuclear weapons (7,982 deployed, 2,700 hedge/contingency stockpile) as of 2002 reports (The Brookings Institution). Though the quantity of nuclear weapons in the U.S. stockpile is much less than the number of weapons it possessed at the height of the Cold War when the U.S. had 32,193 weapons in 1966, this is still an excessive quantity. The U.S. has pledged to reduce the number of nuclear weapons in its stockpiles under the Obama administration in line with the NPT’s goal of advancing peaceful use of nuclear technology and reducing nuclear stockpiles, but has not taken any actions as bilateral negotiations are currently underway with Russia. However, the official policy that has been pursued recently is summarized as “Deter, Assure, Dissuade, Defeat”, despite the lack of an acknowledged threat(Council of Foreign Relations).

More controversially, the U.S. has engaged in a practice that some declare is de facto nuclear proliferation through its weapon sharing program with allies in the North Atlantic Treaty Organization (NATO). This ongoing policy initiative involves the U.S. storing nuclear weapons in NATO countries. According to NATO’s Strategic Concept nuclear weapons provide the

"supreme guarantee" of Alliance security (The Acronym Institute). The U.S. government contends these activities are allowed as control of the nuclear weapons is never transferred, but remain in the control of the U.S. However, opponents have claimed that this undermines the goals of the NPT as it enables countries that are in a military alliance to “share” nuclear weapons within an Alliance country by spreading out nuclear weapons for military purposes (in this case deterrents to potential threats not actual threats). This presents one of the ongoing challenges which may undermine the goals of nuclear non-proliferation and needs to be addressed in some form by the U.N.

Russia

Russia was the second State to become a nuclear weapon State behind the U.S. in August 1945 and began developing and testing its own nuclear weapon. As such, Russia represents one of the main nuclear weapons States that is party to the NPT. Russia has a total nuclear stockpile of 4,237 strategic warheads, approx. 2,000-3,000 operational tactical warheads, and approx. 8,000-10,000 warheads (Arms Control Institution). Like the U.S. this number is much less than the Cold War stockpiles, but is still large in terms of world stockpiles as the U.S. and Russia possess 90% of the world’s stockpiles of nuclear weapons (Harding).

Russia is a potentially danger due to its outdated nuclear weapons accounting systems and security systems, which relies on outdated techniques of “guards and guns” rather than technology solutions to ensure security (Wolf 3-4). Additionally,





Russia's poor communications systems means that any attack on a nuclear weapons storage facility would be difficult to relay to other security forces and leaves Russia's weapons susceptible to theft by non-state Actors.

The U.S. has aided Russia to ensure that Russia maintains control over their nuclear weapons by giving large amounts of aid. Through the Nunn-Lugar Cooperative Threat Reduction Program, the U.S. has given \$2 billion to help transport weapons from former Soviet territories and store weapons safely in Russia (Wolf 3). However, this still represents a precarious situation where Russian nuclear stockpiles remain secure, but vulnerable to theft or attack by non-state Actors and/or rogue States who may want to acquire nuclear weapons.

Recently, the U.S. and Russia committed to negotiate further reductions in their nuclear weapons stockpiles to as few as 1,500, but will not exceed the conditions negotiated with the U.S. to replace the Strategic Arms Reduction Treaty (START) that negotiated reductions in nuclear weapons between the two states. This emphasizes the bilateral nature for nuclear weapons States, where each state is not willing to reduce its stockpiles beyond the limitations of the other State due to mutual distrust and attempt to maintain adequate nuclear weapons to serve as a deterrent to other States. Furthermore, Russia has acknowledged that the U.S.' policy of attempting to place missile defense system in Europe and specifically Eastern Europe in former Warsaw Pact states has placed Russia in a defensive posture and further complicates the negotiations of the new START, though it appears the U.S.' concessions on

a "less threatening" missile defense system in Europe invites greater room for progress with Russia in nuclear non-proliferation and arms reductions (Council on Foreign Relations 23).

North Korea

North Korea has been a particularly troubling case as far as nuclear proliferation is concerned. North Korea has continually defied the international community by testing nuclear weapons despite its commitments to nuclear nonproliferation as a party to the NPT. Though North Korea has been increasingly isolated and is heavily reliant on international aid to feed its impoverished citizens it has pursued its own agenda and largely ignored the international community.

Despite North Korea's bellicose actions, North Korea's nuclear program began with what appeared to be peaceful intentions. In the 1960's North Korea built its first nuclear reactor with the help of the Soviet Union's technical expertise to design the reactor and provide uranium ore in a nuclear power plant near Yongbyon. This facility served as an atomic research facility that trained specialists and enriched uranium ore for the first nuclear facility and the subsequent "second facility", which was more modern and required highly enriched uranium.

In the 1980's North Korea began its nuclear weapons development program, by building facilities for uranium fabrication as well as nuclear reprocessing plants to reprocess uranium rods from the reactors to make plutonium for nuclear weapons (FAS). As the international community began to learn of North Korea's





nuclear weapons program, international pressure resulted in North Korea acceding to the Nuclear Non-Proliferation Treaty (NPT), but refused to fulfill its obligations to sign the IAEA safeguards agreement (FAS). In the mid 2000's North Korea tested a long-range rocket, walked away from the six-party talks and gave notice of withdrawal from all disarmament treaties including the NPT, removed international inspectors from its nuclear facilities, conducted underground nuclear test, announced it had resumed its plutonium production, and started a program to enrich uranium in 2006 (Hui).

North Korea has clearly violated the NPT and nuclear test ban treaties, and continues to defy the Security Council economic sanctions. However, the real danger is that North Korea's actions will undermine the entire NPT and hasten its collapse and result in a nuclear arms race. For example North Korea's actions could potentially provide a justification for non-nuclear weapons States such as, Japan to claim a need to create its own weapon program as a deterrent to North Korea. Furthermore, North Korea presents a huge danger in that its actions could demonstrate the inability of the international community to punish North Korea so that non-nuclear States that seem to desire nuclear weapons such as ,Syria and Iran to pursue nuclear weapons programs of their own triggering a nuclear arms race.

Moreover, North Korea's nuclear arsenal provides more than enough firepower to serve as a powerful deterrent to military intervention to dismantle North Korea's nuclear program by force and hinders the international community's ability to dismantle its nuclear weapons program because

of the threat North Korea poses. However, diplomatic talks and pressure from China could pressure North Korea and avoid a nuclear crisis (Hui). Yet, North Korea remains one of the most troublesome nuclear weapons States, which brings up many relevant issues that must be addressed to maintain successful nuclear non-proliferation.

Israel

After Israel was created at the end of World War II, it was shrouded by the cloud of the violence of the war and the use of the atomic bomb on Japan at Hiroshima and Nagasaki. Officially, Israel neither confirms nor denies it possesses nuclear weapons, but is widely thought to possess nuclear weapons due to many formerly highly classified U.S. intelligence documents, which show that the U.S. was convinced Israel had nuclear weapons as early as 1975 (FAS). Israel remains one of three States (including India and Pakistan) that have never signed the Nuclear Non-Proliferation Treaty (NPT), but insists it will also not be the first State in the Middle East to have nuclear weapons. This implies that if another State in the Middle East, likely Iran or Syria are shown to have nuclear weapons programs Israel would make public the existence of its nuclear program to maintain deterrent capability to prevent an attack.

Since its founding Israel has explored the possibility of creating a nuclear weapons. A former chairman of the Israel Atomic Energy Commission, Ernst Bergmann has openly advocated nuclear weapons be pursued by Israel in order to "to ensure "that we shall never again be led as lambs to the slaughter" (FAS). Others in Israel shared a similar view, that nuclear weapons would provide a way to





maintain a degree independence during the Cold War to circumvent the need to rely on potentially unreliable allies who might not be reliable in a time of need for political reasons (FAS). France saw nuclear programs in a similar light and decided to cooperate with Israel to ensure their security by aiding Israel conduct a nuclear research program.

In 1957 Israel and France agreed to construct a nuclear reactor and a large cooling system that could handle three times the stated size of the nuclear reactor, and a reprocessing plant all conducted in secret and outside the IAEA inspection system in a desert near Dimona (FAS). Several years later, France urged Israel to make its nuclear program public to avoid an international political scandal because French involvement with the secret project would damage French international credibility. However, little was done to advance the French requests and the program remained secret and was completed with little delay and went active in 1964 (FAS).

The U.S. became aware of the project only in 1958 and discovered it was a nuclear facility after a U-2 spy planes flights. U.S. inspectors investigated the facility 7 times in the 1960's and conducted seven inspections of the facilities in the 1960's, but failed to discover any weapons program due to Israel's deception and thus could do little to end the program (FAS). By the time the U.S. allegedly confirmed that Israel had a weapons program and possessed nuclear weapons, the U.S. still did not take active steps to end the program.

Currently, Israel maintains an official position of ambiguity as to whether or not it has nuclear weapons though it is often assumed to be

an undeclared nuclear weapons State. Recently President Obama announced a nuclear summit in March 2010 ahead of the 2010 NPT Review Conference, Israel's deliberate nuclear ambiguity has made it unclear if it should be included in such talks due to its complex status (Gerstein).

Furthermore, not including Israel would lack legitimacy as Israel possesses or did possess a stockpile at some point based on U.S. intelligence and would complicate any criticism of Iran's alleged nuclear ambitions and North Korea's confirmed nuclear weapons policy.

Israel is generally defensive towards its ambiguous nuclear status and this deliberate ambiguity complicates the regional situation with Iran's alleged nuclear weapons program. Israel has threatened a preemptive strike against Iran, who maintains their nuclear program is for peaceful purposes, but openly advocates Israel's destruction and what Iran feels is Israel's hypocrisy on the issue of nuclear weapons. The Prime Minister of Israel, Ehud Olmert has not ruled out a military strike against Iran's nuclear program so that Iran does not become a nuclear power, but claims to prefer diplomacy to prevent Iran from becoming a nuclear weapons State. The issue of Iran and Israel as nuclear weapons States is likely to be a contentious issue at the 2010 NPT Review Conference and Obama's nuclear summit the month before.

Conclusion

The nuclear non-proliferation problem is significant for all members of the United Nations, nuclear weapons States and non-nuclear weapons States alike. Though the majority of States lack





nuclear weapons, the threat of the proliferation of nuclear weapons extends beyond the 8 nuclear weapons States threatens to undermine the foundations of the principles of peace, collective security, and prosperity embodied in the Charter of the United Nations. Though nuclear technology presents enormous opportunity when harnessed for peaceful purposes, it has even greater destructive potential by undoing 2,000 years of human civilization if nuclear war ever were to occur.

There are many who believe that the goal of non-proliferation of nuclear weapons is at a crossroads. One way leads to a world without nuclear weapons and collective international security and the other leads to eventual destruction. The more nuclear weapons in existence, the greater the probability that they will eventually be acquired by non-state actors or used. There have been a variety of ways the NPT has been violated and devastated by legal gray area. One such way is presented by the NATO nuclear weapons sharing where weapons are spread in Europe in the name of international security from unnamed threats. This policy opens the door for the spread of from other nuclear weapons States to non-nuclear weapons States in other areas and in other military alliances.

A different problem is presented by North Korea's defiance and exit from the NPT by leaving the treaty to test and develop nuclear weapons. These actions could trigger an arms race in Asia if the development of weapons is not stopped. Military conflict could occur and lead to an unacceptable loss of lives and disruption of international peace and security. Furthermore, the threat of a developing nuclear program that already

has a significant deterrent capability provides an even greater threat if they decide to launch a nuclear weapons at neighboring Asian states. A separate problem is also presented by North Korea in that it was originally a party to the NPT legally committed to promoting nuclear non-proliferation, but left the treaty to pursue its nuclear program. This leaves open the possibility of a startling precedent for other parties to the NPT could leave and pursue their ambitions for nuclear weapons. This could trigger a nuclear arms race and the collapse of the NPT as well.

Lastly, there is the disturbing trend where so called "peaceful" nuclear programs, are turned into programs to enrich fissile material for nuclear weapons programs after enough plutonium or enriched uranium is produced. This threatens the ability to conduct and harness the power of nuclear weapons technology for peaceful purposes as part of the IAEA and NPT's main goals and threatens the UN's foundations of peace, prosperity, and collective security.

The task for delegates of the Disarmament and International Security Committee is to seek a solution to these emergent problems of nuclear non-proliferation while maintaining the ability of states to harness the peaceful use of nuclear technology Delegates should take into account previous UN and international actions including all relevant resolutions, treaties, protocols, current events and of course the Charter of the United Nations. Now build a better, safer world.

Questions to Consider





1. How can Nuclear Disarmament be tied to Nuclear Proliferation and vice versa?
2. How can international agencies specifically the UN and the IAEA promote the “peaceful” promotion of nuclear technology, considering the “dual use” characteristic of peaceful nuclear technology? In other words, how can the UN or international community prevent peaceful nuclear technology from being used to further military development of nuclear weapons?
3. What characteristics of the Manhattan Project and its goal of creating nuclear weapons are reflected in the histories of the nuclear weapons programs of nuclear weapons States?
4. How can the international community prevent secret nuclear weapons programs that masquerade as peaceful nuclear programs?
5. How can the UN maintain the non-proliferation of nuclear weapons?





Suggested Research Resources

International Atomic Energy Agency Website

<http://www.iaea.org/index.html>

Security Council Resolution 1540

<http://daccessdds.un.org/doc/UNDOC/GEN/N04/328/43/PDF/N0432843.pdf?OpenElement>

United States Department of Energy

<http://www.energy.gov/>

National Nuclear Security Administration

http://www.nnsa.energy.gov/nuclear_nonproliferation/nuclear_weapons_dismantlement_transparency.htm

Treaty on the Reduction and Limitation of Strategic Offensive Arms (*the START I Treaty*)

<http://www.fas.org/sgp/crs/nuke/RL31448.pdf>

Making the 2010 NPT Review Conference a Success

http://www.armscontrol.org/pdf/20080616_Duarte_Remarks.pdf

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