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Nuclear Proliferation in North Korea

Forum: Security Council

Issue: Nuclear proliferation in North Korea

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Introduction

Nuclear proliferation is an issue which has raised security concerns all across the planet. The growth and spread of nuclear technology since its origins in 1942 has concerned many nations due to its well-documented destructive capabilities. Earlier, nuclear technology's only purpose was to produce bombs during the Second World War. After the horrifying incident which took place in 1945, the international community saw nuclear energy beginning to be used for generating electricity, resulting in a mass weapon of destruction being used as a beneficial and peaceful application. To further reduce the risks of spreading nuclear weapons/technology, the Non-Proliferation Treaty (NPT) was introduced to also promote the peaceful use of nuclear technology globally.

Although such initiatives have been put in place, nuclear technology poses many risks especially if it is accessible to those who misuse it for disrupting global peace and security such as the DPRK. The Democratic People's Republic of Korea (DPRK) also known as North Korea, is a self-isolated and totalitarian nation which began research on nuclear technology for energy production in the 1950's. With the help of the Soviet Union, North Korea established its first nuclear reactor in Yongbyong after agreeing to the peaceful use of nuclear energy. In the 1990's, US intelligence suggested that North Korea was in the early stages of developing nuclear weapons although it was a signatory in the NPT *(Columbia Law School)*. This alerted the global community about North Korea's advancements in nuclear technology for military purposes.

Since then, negotiations and talks have taken place which have yielded no results. North Korea has transferred nuclear technology and weapons (such as missiles which are mainly designed to carry nuclear warheads) to countries such as Pakistan, Egypt, Syria and Iran, which could have deadly consequences in times of conflict *(Lee and Hahn)*. North Korea continues to strive in their nuclear program making them a threat to international peace and security.

Definition of Key Terms

International Atomic Energy Agency (IAEA)

An international agency that is part of the UN whose aim to maintain, monitor and promote peaceful use of nuclear energy. Over 180 states have membership in the IAEA. They conduct inspections and monitoring of nuclear programs in different countries through surveillance systems..

Non-Proliferation Treaty

An international treaty opened for signatures since 1970, aiming to achieve nuclear disarmament. The treaty was established to prevent the spread of nuclear weapons/technology amongst non-nuclear weapon states, but to instead use nuclear energy peacefully.. It also recognises five states as Nuclear Weapon States, China, France, Russia, UK & USA.

Nuclear Weapon

An explosive device that releases energy from nuclear reactions such as fission or fusion to produce a powerful explosion. There are two primary types of nuclear weapons - Atomic bomb and Hydrogen bomb. Atomic bombs use fission to release energy in an explosion while Hydrogen bombs use fusion. Atomic bombs are not used anymore due to their large sizes and inefficiency. Hydrogen bombs are more commonly used due to their smaller sizes and high efficiency. An example of a Hydrogen bomb is a nuclear warhead.

Proliferation

The rapid increase and spread of nuclear weapons or technology by North Korea both domestically and internationally to other countries not recognised as a “Nuclear Weapon State” by the Non-Proliferation Treaty.

Totalitarian

A form of government which asserts extreme control over the lives of its population through dictatorship

Warhead

An explosive device made from uranium and plutonium. It is the most used nuclear weapon (H-Bomb) due to its modern and advanced technology and is placed in a nuclear delivery system such as missiles.

General Overview

History

Nuclear proliferation has been a problem since the creation of nuclear weapons in 1942 by the United States. Invented by scientists for World War II, it has been a deadly weapon which can destroy an entire city and kill millions of people. An example of such an incident was the bombing of Hiroshima which took the lives of 140,000 people, proving the power of such a weapon during its early development period. The Cold War (1947-1991) between the USA and Russia was the time period where nuclear weapons were stockpiled to discourage each side from attacking the other. This resulted in an imbalanced division of nuclear weapons globally, as USA & Russia are estimated to have 88% of the nuclear weapons in the world. The acquisition of nuclear weapons by countries soon became a trend to protect themselves from global threats while also gaining status and power on the international level *(Panda)*. A halt was put to the growth and spread of nuclear weapons with the introduction of the NPT.

Non-Proliferation Treaty

The Non-Proliferation Treaty (NPT) was introduced in 1968 but put into action in 1970 to prevent the spread of nuclear weapons and nuclear weapons technology The International Atomic Energy Agency (IAEA) is responsible for safeguarding and inspecting the countries who have signed the treaty to ensure they comply, by not making or spreading nuclear weapons and nuclear weapons technology. A total of 191 countries have signed this treaty including the 5 nuclear weapon states. The nuclear weapon states are countries which acquired nuclear weapons and technology prior to 1968 and are the only countries allowed to have hold of them *(World Nuclear Association)*. Even though these countries have nuclear weapons, they do have to dismantle them over a period of time to reduce the no. of nuclear weapons. This concept has yielded great results, as the no. of nuclear weapons reduced from its peak in 1985 till date is around 50,000. Although this was a huge step towards achieving nuclear disarmament, 5 countries have opposed joining this treaty. These are India, Pakistan, South Sudan & Israel, who have never signed this treaty and North Korea who denounced its participation from the NPT in 2003. India and Pakistan have publicly disclosed about their nuclear program, while Israel is suspected of having nuclear weapons/technology.

North Korea's Nuclear Origins

North Korea was established in 1948 as a communist state with its first leader being Kim Il Sung. Its citizens do not have access to the outside world, freedom of speech and religious freedom. North Korea has been subject to major famines and food shortages since 2011 which is reflected by 60% of its population living below the poverty line. The main focus of North Korea for many years

now has been its nuclear program and capabilities. In 1952, Kim Il Sung's regime established the Atomic Energy Research Institute to conduct research on nuclear energy *(Department of Foreign Affairs and Trade)*. They wanted to learn more about nuclear capabilities for enhancing the economic outcomes rather than for security reasons. In 1956, North Korea established cooperation efforts regarding nuclear research with the Soviet Union (USSR - Former Russia) and began sending scientists to Russia to learn more about nuclear power. In 1959, North Korea with the help of the USSR constructed their first nuclear reactor in Yongbyong after agreeing to the peaceful use of nuclear energy. The regime started to pursue the idea of nuclear weapons in 1962, after the Cuban Missile Crisis, as they believed the Soviet Union might cut-off collaboration efforts and abandon them. Nuclear weapons seemed to guarantee the regime's safety *("North Korea")*. In 1985, North Korea joined the Non-proliferation treaty due to intense pressure from the USSR in return for nuclear technology. In the next couple of years, the purpose of the treaty looked in vain as the US intelligence through satellite images suggested that North Korea was in the early stages of developing nuclear weapons also due to the fact they didn't allow IAEA inspectors to look through its facilities. In 2002, North Korea admitted to having a nuclear weapons programme for many years in their underground facilities which was a violation of the agreed framework treaty with the USA and withdrew from the NPT the following year *(Davenport, "The U.S.-North Korean Agreed Framework at a Glance | Arms Control Association")*. In 2006, North Korea conducted its first nuclear weapon test in the Korean peninsula which alerted the global community of the new threatening strength the regime possessed. More nuclear tests took place in 2009, 2013, 2016 and 2017, each time revealing the progress in the nuclear weapons programme. From 2012 to 2023, they conducted more than 214 missile related tests even stating that their latest missiles capable of carrying nuclear warheads can travel upto US mainland *(Kim)*.

North Korea's Proliferation Background

North Korea played a major role in nuclear proliferation over the last decades since they developed their nuclear weapons and missiles programme. They have had documented trades with almost 6 countries and possibly more disclosed. In the 1990's Pakistan was well capable of creating nuclear weapons but lacked the delivery system meant to transport the warhead. North Korea assisted Pakistan with ballistic missiles multiple times while also spreading technology regarding the nuclear delivery system. Iran has seeked assistance from North Korea for raw materials, technology and development of their ballistic missile and nuclear program since 1980 *(Levkowitz)*. Iran was incapable of producing delivery systems for weapons but with the help of North Korea, they have developed a missile program capable of producing its own missiles. As of 2011, North Korea provided Iran with computer programs and knowledge on designing nuclear warheads while also training Iranian scientists regarding the nuclear program in a $100 million deal (*Cohen)*. Syria is another recipient of

North Korea's ballistic missiles and other nuclear assistance from 1992. North Korea has helped them build a nuclear reactor for producing weapons. The nuclear reactor was then destroyed by Israel in 2007 due to safety concerns in the Middle East *(Kerr et al.)*. North Korea has engaged in such proliferation acts both with nuclear expertise and missile sales/technology mainly to non nuclear-weapon states which is a violation of the NPT.

Geographical Facts

North Korea is located in Eastern Asia and borders China, Russia and South Korea. It occupies the northern part of the Korean peninsula and has an area of 120,538 km^2. 80% of the terrain is mountains, forests and agricultural plains. North Korea is rich in iron ore, gold, zinc, silver, coal etc.

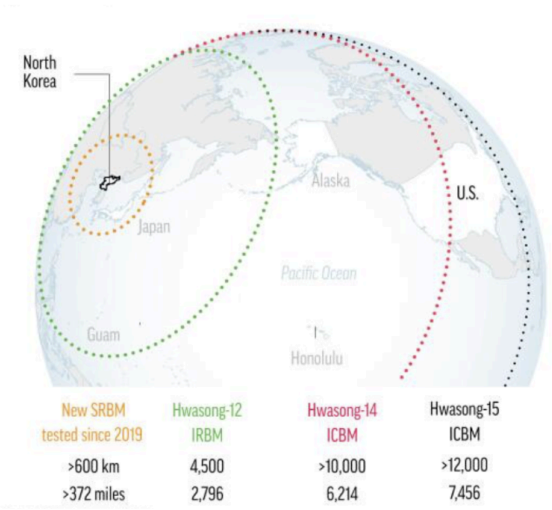

Fig. 1

Current Events and Impacts

North Korea's proliferation of nuclear weapons and related technology such as missiles has had a major impact in the world. It has helped many countries such as Pakistan, Iran, Syria and Libya grow their nuclear programs and capabilities, making them possible threats to the security of the international community. As of now, North Korea has continued growing its nuclear abilities by improving their arsenal to 60 warheads in the coming years, while also being ready to offer their expertise and nuclear technology to any country that needs it. Despite numerous sanctions and resolutions passed against them, the Royal United Services Institute of the UK has alerted countries that the possibility of future transfers of nuclear weapons technology is very likely. North Korea and potential customers understand the risk of transferring nuclear weapons and missile technology due to the advanced modern technology possessed by concerned nations such as the USA. Instead they have looked into offering non-tangible nuclear assistance such as sending scientists or digital models of nuclear technology to assist nations who need them in return for profit from proliferation *(Salisbury and Dolzikova)*. North Korea currently assists Russia by sending them ballistic missiles capable of carrying nuclear warheads and conventional weapons to assist them in the war against Ukraine. Other proliferation activities currently taking place are likely not disclosed due to the risk of being exposed. North Korea has also used Russian and Chinese markets to launder nuclear weapons and nuclear/missile technology since 2016. The anonymous sales are mostly untraceable making them a great mode of selling sanctioned items. These sales do have obvious links to North Korea but are ignored by China and Russia. This has left the international community with a threat that North Korea can unleash at any time without advance alerts based on their history. The consequences could be

deadly even leading to nuclear war by either North Korea or other countries assisted by them, if the proliferation isn't ended in the near future.

Major Parties Involved

USA

USA is one of the advanced nuclear nations with around 3,700 nuclear warheads in their arsenal. They are the frontrunners in leading talks and negotiations to end nuclear proliferation all around the world. USA have taken particular interest in North Korea since the start of their nuclear program back in the 1960's as they were concerned about the nuclear development in the Korean peninsula. USA actively monitored the situation in North Korea and were the ones who detected the early developments of nuclear weapons. They have held talks over the proliferation of nuclear carrying missiles, nuclear programs etc. They initiated the agreed framework which ensured the closure of North Korean nuclear reactors and facilities back in 1994. USA has helped the UN to place sanctions on North Korea to promote disarmament of nuclear weapons and actions taken by IAEA to ensure global peace is maintained at all costs.

Russia

Russia has the biggest nuclear arsenal in the world with around 4,300 nuclear weapons. They were formerly the Soviet Union which helped North Korea develop their nuclear program by providing expertise, materials, training etc with the agreement of using it only for peaceful purposes. North Korea's request for nuclear weapons in 1963 was refused by the USSR and they were the key reason North Korea joined the NPT. Even after the fall of the Soviet Union, Russia strongly supported non-proliferation of nuclear weapons and technology, condemning the nuclear tests conducted by North Korea. They have actively supported UN Security Council Resolutions against the North Korean Nuclear Program, imposing sanctions on the nuclear proliferation in North Korea promoting denuclearization of the Korean peninsula. But recent events such as the Ukraine war has prompted them to seek North Korean support for weapons. North Korea has offered nuclear carrying missiles and conventional weapons in return of technological assistance in their nuclear weapons program. Their willingness to engage in trade with North Korea can enable other states to do the same, helping North Korea proliferate nuclear weapons and technology in the future *(Howell)*. This has overall deepened both the states' relation as Russia no longer condemns nuclear proliferation by North Korea but supports it.

International Atomic Energy Agency (IAEA)

The IAEA is an international organisation part of the UN, whose role is to promote peaceful use of nuclear energy all over the world. It works with the governments of 180 states that are part of IAEA to monitor, inspect and safeguard the use of nuclear energy. IAEA was present in North Korea from 1974 and overlooked the operations conducted by North Korea, but inspections were interrupted by North Korean officials at some sites, leading to suspicions on the development of nuclear weapons. In 1994, North Korea ended its IAEA membership due to fallouts in agreements. The inspectors were allowed to stay till 2009. IAEA was part of sealing nuclear reactors and facilities while monitoring their activities to avoid developing nuclear weapons based on the Agreed Framework. In 2009, the IAEA inspectors were forced to leave North Korea as they ceased all operations with IAEA.

Iran

One of the largest customers of North Korean nuclear and missile technology from the 1980's. Lacked missile systems and programs which could carry nuclear warheads but was assisted by North Korea with the help of their expertise and advanced technology. Also needed assistance in building nuclear warheads and North Korea provided them with designs and scientists capable of building the nuclear weapon to fit in missiles. Now has an advanced missile program but lacks nuclear weapons due to international restrictions though research on weapons was done. Their nuclear program has grown with the proliferation done by North Korea in turn for oil and $100 million for the nuclear warhead research project.

Pakistan

Another nation who has nuclear weapons including nuclear warheads but didn't have a nuclear delivery system. They have actively engaged in deals with North Korea since 1990 and have grown their missile capabilities to carry nuclear warheads with technology and missiles provided by North Korea. This has ultimately helped their nuclear program reach new heights as they are considered a threat due to the proliferation done by North Korea in return for money.

China

China has been an ally of North Korea since the beginning of their nuclear program. During the fall of the Soviet Union, North Korea heavily relied on China for economic and trade benefits. But China is a nation which strongly opposes proliferation of nuclear weapons and technology. They have supported all the UN resolutions that condemn North Korea's nuclear testing and have played a big role in sanctioning them for the proliferation done. They haven't given any nuclear weapons or technology to North Korea, upholding its values against proliferation. Yet, China still vetos resolutions that heavily sanction North Korea as they have been an military ally since 1963 and a

collapse in North Korean economy could result in a refugee crisis in China, something they wouldn't favour.

Timeline of Key Events

Date	Description of Event
August 2018	Evidence found of North Korea producing more nuclear weapons.
April 2018	North Korea announces end to nuclear testing claiming its achieved its goals.
3rd September 2017	North Korea conducts its 6th nuclear test.
9th April 2013	North Korea says it's on the brink of nuclear war with South Korea.
7th March 2013	The UN Security Council passes a resolution aiming at ending North Korean nuclear and missile tests while also reducing nuclear/missile proliferation.
12th February 2013	North Korea conducts third Nuclear tests and multiple missile launches claiming it's a fight against the United States of America (US).
December 2010	The US finds evidence of more nuclear facilities and reactors in North Korea despite the sanctions put in place.
12th June 2009	The UN Security Council passes another resolution applying more sanctions on North Korea in response to the second nuclear test.
9th April 2009	North Korea fires a long-range missile over the pacific. Global community convinced it was a demonstration of North Korea's progress in the capability of firing nuclear warheads.

September 2008	North Korea forces IAEA to reopen nuclear facilities and asks inspectors to leave.
July 2007	IAEA shutdowns all North Korean nuclear facilities.
14th October 2006	The UN Security Council imposes sanctions on the supply of missiles (conventional and missiles capable of carrying nuclear warheads) and missile technology, condemning the nuclear tests.
8th October 2006	North Korea conducts their first Nuclear test underground.
9th August 2003	Six Party Talks begin which aim to halt the North Korean nuclear weapons programme, testing and exports of missiles, spreading nuclear technology and to dismantle its nuclear facilities.
25th April 2003	North Korea reveals they have nuclear weapons.
February 2003	North Korea restarts the nuclear reactor.
10th January 2003	North Korea leaves the Non-proliferation treaty.
12th December 2002	North Korea plans to restart the only working reactor in Yongbyong and continue the construction of the other two nuclear reactors claiming it is for the production of electricity.
October 2002	North Korea admits to having a nuclear weapons program which violated the NPT and Agreed Framework.
3rd November 2000	The 7th round of missile talks between US and North Korea ends without a resolution.
28th November 1994	The Agreed Framework sees IAEA announcing the halt in construction of two nuclear reactors in North Korea.

21st October 1994	North Korea and the US sign the Agreed Framework which sees the Yongbyong nuclear reactor shutdown and two military sites open up for inspections.
12th March 1993	North Korea threatened to withdraw from NPT due to national security reasons after being suspected of having a nuclear weapons programme.
9th January 1992	Joint Declaration of the Denuclearization of the Korean Peninsula by South and North Korea.
1992	Beginning of North Korea proliferating in Syria.
1990	Beginning of North Korea proliferating in Pakistan.
1989	North Korea was suspected of being in the early stages of developing nuclear weapons by US intelligence.
1985	North Korea joins the Non-proliferation treaty (NPT) for nuclear weapons.
1980	Beginning of North Korea proliferating in Iran.
1979	North Korea begins building its second nuclear reactor with the help of the USSR & IAEA.
1962	North Korea shows interest in acquiring nuclear weapons to guarantee the country's safety after the Cuban Missile Crisis.
1959	North Korea builds its first nuclear reactor in Yongbyong with the help of the Soviet union.
December 1952	North Korea starts to pursue nuclear technology through research for economic benefits.

Previous Attempts to Resolve the Issue

UN Resolutions

- **SC Resolution 1580, 2004 (S/RES/1580):**
  This resolution focuses on refraining from providing any forms of nuclear weapons or technology and delivery means such as missiles to non-nuclear weapon states. It also applies other solutions to preventing the proliferation of nuclear weapons especially to terrorists.

- **SC Resolution 1718, 2006 (S/RES/1718):**
  This resolution aimed to achieve the nuclear disarmament of North Korea. It demanded North Korea to return to the NPT while refraining from conducting any further nuclear or missile tests. Another important aspect was for North Korea to abandon its nuclear program to prevent further nuclear proliferation from happening. Sanctions included member states being prohibited to sell any heavy weaponry or materials for these weapons.

- **SC Resolution 2094, 2013 (S/RES/2094):**
  This resolution focused on banning any nuclear dual-technology and missile technology imported by North Korea to be banned. It also stated the condemnation of the nuclear activities conducted in Pyongyang. Financial aid from other member states related to military or nuclear programs in North Korea were also banned.

- **SC Resolution 2270, 2016 (S/RES/2270):**
  This resolution prohibited member states from gaining the expertise and knowledge provided by North Korean personnel to prevent nuclear proliferation.

- **SC Resolution 2321, 2016 (S/RES/2321):**
  This resolution condemned North Korea for prioritising the nuclear program over the welfare of its citizens. It also applied export and trade bands on North Korea, having a major impact on their economy.

- **SC Resolution 2375, 2017 (S/RES/2375):**
  This resolution applied more economic sanctions and bans on trades such as textiles, which brought in large export funds. It also demanded North Korea to return to the Six Party Talks to end its nuclear program.

Other Attempts

- **Non-Proliferation Treaty (1970 - present)**

  This treaty was a major achievement in progressing towards nuclear disarmament and promoting using nuclear energy for peaceful purposes. It is signed by over 190 countries but not by North Korea as they denounced their participation in 2003. This has made them one of the biggest nuclear and missile proliferators in our world.

- **Six Party Talks (2003 - 2009)**

  This was multiple rounds of negotiations between China, Russia, North Korea, South Korea, Japan and USA aiming to end North Korea's nuclear program and to stop the nuclear proliferation caused by them. The negotiations started immediately after North Korea left the NPT and multiple rounds took place between 2003 and 2009. In 2005, North Korea came close to shutting down their nuclear program, but this failed to happen once the USA caught Banco Delta Asia laundering millions for the North Korean government and froze their accounts. There have been signs of bringing back the talks by China, but North Korea doesn't seem open to it.

- **Agreed Framework (1994 - 2003)**

  This was signed between the USA and North Korea which saw North Korea suspend its nuclear program by shutting down its nuclear reactors and halting construction on the other two nuclear facilities. The agreement eventually broke down in 2003 once North Korea revealed it had nuclear weapons and multiple missile testing took place breaking the clauses of the agreement. Also since both parties failed to meet their commitments as USA fell behind on building the light-water reactors they promised.

Possible Solutions

The situation in North Korea is challenging to resolve based on the attempts to solve it before. Although solutions such as heavy sanctions have been put in place, other similar effective solutions can be put in to tackle this challenge.

- A possible solution would be providing North Korea economic or humanitarian relief in return for denuclearizing the country. Such a scenario was considered by both sides through the Agreed Framework, but failed due to lack of commitment from both sides. Ensuring that both North Korea and nations providing reliefs stay committed, an UN task force could be established to overlook the pre-negotiated reliefs provided for efforts made by the government

to reduce proliferation attempts by North Korea. Such actions could be demolishing nuclear facilities or cutting down all activities where North Korea transfers nuclear weapons or technology to other countries/organisations.

- Another possible solution would be to restart initiatives such as the Six Party Talks where a group of nations negotiate with North Korea on reducing nuclear proliferation. Such diplomatic approaches might get North Korea to reconsider their stance in this situation and take measures to limit proliferating such a harmful weapon over a period of time. Also establishing a "North Korean Surveillance System" such as a live satellite feed and maritime patrols could track down nuclear proliferation attempts while also ensuring North Korea stays committed to their agreements.

Although there are a wide variety of possible solutions to this problem, the previous attempts must be thoroughly considered as North Korea is a nation which strives for nuclear proliferation even though harsh sanctions and initiatives have been put in place.

Appendices

Appendix A

Fig. 1 is an image of the missile ranges of North Korean missiles which can carry nuclear warheads.

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