

NORTH KOREA'S WEAPONS OF MASS DESTRUCTION

2016 International Student Summit Background Briefing Paper

Introduction

From the Pakistan/India nuclear arms race, to the hotly debated nuclear program of Iran, to Syria's apparent use of chemical weapons on civilians, the spread of nuclear, biological, and chemical weapons poses a grave threat to global security. With the development and circulation of these **weapons of mass destruction (WMDs)** and related materials, technologies, and expertise, North Korea's WMD programs, in particular, have remained a key challenge towards maintaining peace and security for the international community.



*North Korean soldiers on patrol at the DMZ.
Source: International Crisis Group*

As one of the world's most secretive and unpredictable nations, the **Democratic People's Republic of Korea** (the DPRK or North Korea) has maintained an active nuclear weapons program, supply of missiles and long-range rockets, and extensive stockpile of biological and chemical weapons. With one of the world's largest standing armies, a heavy naval presence in the Pacific Ocean, and a forcefully nationalistic worldview, intensive diplomatic efforts to rein in North Korea's WMD ambitions and promote stability in the region have resulted in limited progress and regular periods of crisis and stalemate.

Classifying Weapons of Mass Destruction¹

The dangers posed by weapons of mass destruction have come to occupy center stage in international politics. The term "weapon of mass destruction" is used to characterize a variety of weapons that share two key features: their potential for large-scale destruction and the indiscriminate nature of their effects, notably against civilians. There are three major types of WMDs: **nuclear weapons**, **chemical weapons**, and **biological weapons**. In addition, some analysts include **radiological materials**, as well as missile technology and delivery systems such as combat aircraft, drones and **ballistic missiles**.

While the mass killing of human beings is not a new feature of warfare, WMDs pose an unprecedented collection of challenges to peace and security. Over the past century, various states have built and stockpiled lethal arsenals of nuclear, chemical, and biological weapons and the materials to produce them. While states have officially committed to eliminating all stockpiles of chemical weapons and biological weapons, and to strive for the elimination of nuclear weapons through international treaties and organizations, nine countries currently possess nuclear weapons: Britain, China, France, India, Israel

¹ This section was excerpted from Hampshire College's Peace and World Security Studies [Introduction to Weapons of Mass Destruction](#) (2016).

(assumed), North Korea (claimed), Pakistan, Russia, and the United States. In addition, several more states are believed to possess chemical and/or biological **warfare agents**.

In addition to the dangers posed by existing stockpiles of WMDs, significant problems arise from the spread (or “**proliferation**”) of these weapons and related technologies to additional countries, nongovernmental actors, and non-state terrorist networks through secret programs and black-market sales of weapons and related technologies. For example, fears of terrorists using WMDs increased in the United States and around the world following the use of the biological warfare agent anthrax in the U.S. mail in 2001 and evidence seized by U.S. forces in Afghanistan indicated that Al Qaeda was actively seeking nuclear materials.

Understanding North Korea’s Rise & Decline²

Part of an independent kingdom covering the entire Korean peninsula for much of history, North Korea is the byproduct of numerous 20th century conflicts and remains one of the last **totalitarian, communist** states on earth.

In 1910, Japan annexed and occupied the Korean peninsula following the Russo-Japanese War. At the end of World War II, the Japanese forces in Korea surrendered to the United States in the South and to the **Soviet Union** in the North. A line of separation between the two regions was created by the superpowers. This line divided the country in two—a communist North and a **capitalist** South.



A group of North Koreans pay tribute to the former leaders of the country. Source: Financial Times

As tensions between the Soviet Union and the United States heated up and the **Cold War** began, the division of North Korea became an issue for national security. The United States installed an anti-communist regime in the South. In the North, the Soviets installed **Kim Il Sung**, a staunch communist who had lived in the Soviet Union during World War II.

Kim Il Sung hoped to reunify the two Koreas by conquering the South, and he sought permission to invade from the Soviet leader **Josef Stalin**. Stalin agreed, and in June 1950, the North launched an invasion backed by Soviet equipment and military advisors. The North Koreans captured Seoul, the capital of South Korea, in three days.

For the United States, these developments were a cause for great alarm. China had become a communist state and tensions with the Soviets in Europe were extremely high. President Truman believed the communist aggression needed to be checked wherever it occurred in the world. The United States and a coalition of nations, under the auspices of the **United Nations** (UN) landed troops in South Korea, retook Seoul, and forced North Korean troops to retreat. Some UN troops reached the border of communist China. This advance triggered an attack by the Chinese, who said they would not allow North Korea to fall.

The **Korean War** lasted for another three years. Thirty-four thousand Americans died. More than three million Koreans were killed or wounded, and there were nine hundred thousand Chinese casualties. Although a truce was signed, no formal peace treaty was signed. The border between North and South Korea remained.

² This section was excerpted from The Choices Program’s [North Korea and Nuclear Weapons, Teaching with the News Online Resource](#) (Watson Institute for International Studies, Brown University).

The 1953 truce agreement established a three-mile-wide **demilitarized zone (DMZ)**. In fact, the border between the Koreas became a highly militarized area where each side faced the other down on a daily basis.

The end of the Soviet Union in 1991 marked the end of an era. For the United States, it meant the end of more than four decades of nuclear confrontation with the Soviet Union. For North Korea, it meant that aid and support from the Soviet Union ceased. North Korea sought to improve relations with the international community but was met with a cold shoulder due its repressive policies, human rights abuses, sponsorship of terrorism, and **radical ideology**.

Today, North Korea is one of the most impoverished, isolated societies on earth. Some estimate that as many as two million North Koreans starved to death between 1995 and 1998 after a series of floods. Estimates are that out of a population of twenty-two million, thirteen million North Koreans are suffering from malnutrition. Sixty percent of all North Korean children are malnourished—the highest level in the world. Nevertheless, North Korea has one million soldiers in its military, many of whom are poised along the border with South Korea. North Korea is one of the most highly militarized countries in the world. In 2001, North Korea spent more than 30 percent of its **gross domestic product (GDP)** on the military. Nearly eight thousand North Korean artillery pieces are along the border, many within range of Seoul.



*Kim Jong-un, supreme leader of North Korea, inspects a warhead.
Source: Foreign Policy Research Institute*

Meanwhile, North Korean citizens are isolated from the rest of the world by an extremely repressive state. For example, when the United States provided 500,000 tons of food aid in 2001, the North Korean government told its people that the food was provided as a form of tribute to their powerful country. North Koreans are forbidden to have any contact with the world outside of North Korea by mail, telephone, internet or radio.

North Korea's WMD Threat³

North Korea has an active nuclear weapons program and tested nuclear explosive devices in 2006, 2009, 2013, and twice in 2016. The DPRK is also capable of producing **enriched uranium** and **weapons-grade plutonium**. North Korea deploys short- and medium-range ballistic missiles and successfully launched long-range rockets in 2012 and 2016. North Korea is also believed to possess biological and chemical weapons programs.⁴

While most states have officially committed to eliminating all stockpiles of WMDs through international treaties to prevent the use and spread of these weapons and related technology, North Korea has not shown the same level of commitment and cooperation. To the great concern of the international community, Pyongyang, the capital of North Korea, unilaterally withdrew from the **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)** in January 2003 and is not a party to the **Comprehensive Nuclear-Test-Ban Treaty (CTBT)** or a member of the **Missile Technology Control Regime (MTCR)**. The DPRK is not

³ This section was excerpted from the Nuclear Threat Initiative's [Country Profile on North Korea](#) (October 2016).

⁴ For a detailed outline of North Korea's WMD programs, see Figure 1 (page 9).

a party to the **Chemical Weapons Convention** (CWC), and is believed to possess a large chemical weapons program. North Korea is a party to the **Biological and Toxin Weapons Convention** (BTWC) and **Geneva Protocol**, but is suspected of maintaining an offensive weapons program in defiance of the BTWC.

International Action – The Six Party Talks⁵

Launched in 2003, as a result of North Korea withdrawing from the *Treaty on the Non-Proliferation of Nuclear Weapons*, the **Six Party Talks** are aimed at ending North Korea's nuclear program through negotiations involving China, the United States, North and South Korea, Japan, and Russia. This round of talks, which marked a reversal of Washington's non-engagement policy with Pyongyang, has been hindered over the years by North Korea's repeated missile tests and other provocations. Progress reached a stalemate when Pyongyang walked out of negotiations in 2009 and, a year later, revealed a vast new uranium enrichment facility to visiting U.S. scientists.

In early 2012, under new leader **Kim Jong-un**, the isolated nation announced it would suspend nuclear tests and allow international inspectors to monitor the suspension in exchange for food aid from the United States. But hopes were dashed in late 2012 when North Korea launched a long-range rocket widely viewed as a test of ballistic missile technology. The incident triggered a UN Security Council vote that placed broader **sanctions** on the regime. In response, North Korea carried out its third and most powerful nuclear test in early 2013, which monitors say had double the force of a 2009 explosion. The act drew international condemnation from Six Party powers, including China and Russia.

More recently, China has stepped up its efforts to relaunch the talks, sending its chief nuclear envoy to Pyongyang in early September 2013 and proposing soon thereafter to hold an informal meeting between Six Party participants. The United States has been reluctant to resume negotiations, however, insisting that Pyongyang first honor past commitments to dismantle its program before relaunching discussions with other parties.

While there is a strong international consensus that North Korea should come into compliance with UN Security Council resolutions and abandon its nuclear weapons program, there remains widespread disagreement over the strategy and policies for achieving this.⁶

North Korea's WMDs & the Likelihood for Peace and Security on the Korean Peninsula⁷

North Korea's history of regional military provocations, long-range missile development, WMD programs, and massive conventional armed forces are currently a major concern to the international community. However, international negotiations and sanctions towards North Korea have yielded little progress in denuclearizing and reducing the threat that its WMD programs pose to the region and international stability.

Since the end of the Cold War, North Korea has developed a state ideology of "military first". Furthermore, the country's new leader has called for enhanced economic and nuclear technology development for both peaceful and military purposes, as a contribution to "scientific **socialist** thought" and essential to the continuing Korean revolution. With nuclear status a declared priority, state propaganda emphasizes the role of nuclear weapons, satellite launchers and nuclear technology in the nation's modernization and prosperity. DPRK officials often have repeated that Pyongyang will denuclearize when the rest of the world

⁵ This section was excerpted from the Council on Foreign Relations' Backgrounder: [The Six Party Talks on North Korea's Nuclear Program](#) (September 2013).

⁶ For a complete outline of the main objectives for parties involved in the Six Party Talks, see Figure 2 (page 10).

⁷ This section was adapted from the International Crisis Group's report: [North Korea: Beyond the Six-Party Talks](#) (2015).

does. Likewise, the North has offered to return to the Six-Party Talks “without preconditions” to discuss regional security, nuclear disarmament and other issues – but not denuclearization.

Simulation Goals for the 2016 International Student Summit

The 2016 International Student Summit will simulate an emergency, multinational summit aiming to promote stability and finding a peaceful resolution to recent security concerns posed by North Korea’s strengthening of its WMD programs. This meeting will take place against a backdrop of increased military provocations in the region by the DPRK, including the proliferation of military-related items, long-range missile development and top-secret tests of chemical weapons and nuclear devices.

Representing a stakeholder (either a senior diplomat, military officer or trade/economic officer) from one of the Six Party Talks countries, student delegates will be tasked with finding a collective strategy in talks with Pyongyang to prevent the proliferation of WMDs and possible export of materials and missile technology to hostile states and terrorist groups. The goal of the summit is to find a resolution that will restore peace and stability on the Korean Peninsula and in Northeast Asia.

QUESTIONS TO CONSIDER

General Questions

- 1. Why do you think North Korea is pursuing weapon of mass destruction programs? What do you think is the end goal?

- 2. What are the biggest threats to the peace and security of the region (Northeastern Asia) if North Korea possesses WMDs? To the international community?

3. Can North Korea be influenced to cooperate with the international community in regard to its WMD programs? If so, what would be the best strategy? If not, why?

4. How should the international community respond to North Korea's aggressive and unpredictable behavior? What has been successful? What has failed?

5. What has been the significance of the Six Party Talks in addressing North Korea's WMD programs?

6. Besides WMDs, what are some of the other well-known challenges facing North Korea? Identify some of the social, economic, political and ideological challenges for this nation.

Questions from the Perspective of Your Assigned Country⁸

1. What is your country's present day and historical relationship with North Korea?

2. What is your country's position on North Korea's WMD programs? What are the specific threats posed by such programs to your country and its interests in the region?

⁸ Student delegates will be assigned countries and stakeholder roles during the week of November 7th.

3. What types of leverage (by influence and/or force) does your country hold in the relationship with North Korea (military, diplomatic, economic, trade, aid, etc.)?

4. Does your country possess active weapon of mass destruction programs or stockpiles? What international treaties on WMDs is your country a participant?

5. What measures has your country taken to reduce the proliferation of WMDs?

6. What specific concerns does your country hold with regard to the possible export of materials and missile technology to hostile states and terrorist groups?

Figure 1:
Detailed Outline of North Korea's WMD Programs⁹

<p>Nuclear Weapons</p>	<p>North Korea's interest in a nuclear weapons program dates to the end of World War II. Since then, Pyongyang developed a nuclear fuel cycle capability and has both plutonium and enriched uranium programs capable of producing fissile material. North Korea conducted five nuclear weapons tests in 2006, 2009, 2013, and twice in 2016 claiming that the January 2016 test was a thermonuclear device; however, experts remain skeptical.</p>
<p>Chemical Weapons</p>	<p>North Korea is not a signatory to the <i>Chemical Weapons Convention</i> (CWC). The DPRK's pursuit of chemical weapons dates to 1954. It most likely obtained indigenous offensive chemical weapon production capabilities in the early 1980s. The DPRK's chemical agent production capability is estimated to be up to 4,500 metric tons during a typical year, and 12,000 tons per year during a period of crisis, with a current inventory of 2,500 to 5,000 tons.</p> <p>In particular, Pyongyang has concentrated on acquiring mustard, phosgene, sarin, and V-type chemical agents. Reports indicate that the DPRK has approximately 12 facilities where raw chemicals and agents are produced and/or stored, as well as six major storage depots for chemical weapons. The United Nations Human Rights Council reported that North Korea may have tested chemical weapons on prisoners and the disabled in February 2014, though it could not independently confirm the accuracy of defector testimony. Pyongyang also has placed thousands of artillery systems — including multiple launch rocket systems that would be particularly effective for chemical weapons delivery — within range of the Demilitarized Zone (DMZ) and Seoul.</p>
<p>Biological Weapons</p>	<p>Although North Korea has signed the Geneva Protocol and acceded to the Biological and Toxin Weapons Convention (BTWC), it is suspected of maintaining an ongoing biological weapons program. Defectors from the DPRK and defense agencies in the United States and South Korea generally agree that the country began to acquire a biological weapons capability in the early 1960s under the orders of Kim Il Sung. However, open source information on the DPRK's biological weapons program varies. The South Korea's Ministry of National Defense estimates that the DPRK possesses the causative agents of anthrax and smallpox, among others. The U.S. Secretary of Defense's 2014 report indicated that the DPRK possesses a potentially robust biological warfare capability.</p>
<p>Delivery Systems</p>	<p>North Korea began its missile development program in the 1970s and tested a Scud-B ballistic missile in April 1984. Having benefited from the widespread sale of short-range Soviet "Scud" missiles in the 1970s and 1980s, the DPRK has learned how to re-produce, modify and produced new missiles of their own. North Korea is not a member of the Missile Technology Control Regime (MTCR) and have shown they are willing to peddle designs, parts and expertise for financial gain.</p> <p>North Korea agreed to a moratorium on long-range missile tests in exchange for food aid from the United States in February 2012. However, in April 2012 it attempted to launch a satellite into orbit using an Unha-3 launch vehicle. The launch failed after approximately 80 seconds, and the U.S. government withdrew its offer of food aid because it considered the space launch, which relied on missile technology, to be a violation of the bilateral agreement. On December 12, 2012, North Korea reattempted its Unha-3 launch, successfully putting a satellite into orbit. This test proved a significant advancement in North Korean missile technology. In order to deliver a nuclear payload, the rocket would require the addition of a re-entry vehicle which requires technology and advanced materials experts believe the regime is still working on acquiring.</p>

⁹ This section was excerpted in part from the Nuclear Threat Initiative's [Country Profile on North Korea](#) (October 2016).

**Figure 2:
Main Objectives for Parties Involved in the Six Party Talks¹⁰**

China	Beijing serves as Pyongyang's long-standing ally and main trade partner and has used its influence to bring North Korea to the negotiating table. Beijing also fears a rush of refugees across its border and has thus provided the North with energy and food assistance. In March 2013, China finally agreed to sponsor UN sanctions alongside the United States, and it has since then increased its rhetoric for the resumption of talks.
Japan	Tokyo worries that North Korea's missile tests could potentially reach Japan. But it also views the Six Party Talks as a forum for negotiating a resolution to the abduction of Japanese citizens by North Korean spies in the 1970s and 1980s. The issue remains a divisive point in U.S.-Japan relations, as Tokyo had not wanted Washington to remove North Korea from its State Sponsors of Terrorism list until the issue was resolved.
North Korea	The regime seeks a nonaggression security pledge from the United States, which deploys 28,500 troops in South Korea and maintains a heavy naval presence in the Pacific. Pyongyang also wants normalized relations with Washington and access to economic aid from other Six Party countries.
Russia	Moscow's position at the table allows it to reassert its influence in Northeast Asia. Although it has traditionally joined China in warning against harsh sanctions, North Korea's recent provocations have driven it to issue condemnations against the regime's nuclear testing.
South Korea	Frozen in an unresolved conflict with North Korea, Seoul's ultimate goal is the denuclearization and reunification of the Korean peninsula. The South also wishes to liberalize North Korea's failing economy through greater financial engagement aimed at mitigating the potential cost of future reunification.
United States	For Washington, the Six Party Talks serve as a platform for the multilateral mediation of North Korea's nuclear program. The chief U.S. concern remains Pyongyang's nuclear program and the possible sale of nuclear materials and technology to hostile states and terrorist groups. As part of any agreement, Washington wants the reclusive state to consent to visits from international monitors.

¹⁰ Excerpted from the Council on Foreign Relations' Backgrounder: [The Six Party Talks on North Korea's Nuclear Program](#) (September 2013).

Glossary of Terms

- **Ballistic Missile:** A delivery vehicle powered by a liquid or solid fueled rocket that primarily travels in short, medium or long ranges in a ballistic (free-fall) trajectory and intended for use against ground targets.
- **Biological and Toxin Weapons Convention (BTWC):** The chief international treaty that prohibits the development, production, or stockpiling of bacteriological and toxin weapons. Countries must destroy or divert to peaceful purposes all agents, toxins, weapons, equipment, and means of delivery.
- **Biological Weapons:** Weapons that use microorganisms and natural toxins (such as anthrax, plague and smallpox) to produce disease in humans, animals, or plants. These materials can be deployed as biological weapons when paired with a delivery system, such as a missile or aerosol device.
- **Capitalism (Capitalist):** An economic system in which investment in and ownership of the means of production, distribution, and exchange of wealth is made and maintained chiefly by private individuals or corporations.
- **Chemical Weapons:** Weapons that deliver toxic chemicals in gaseous, liquid, or solid form to cause death or severe harm to humans, animals, and/or plants. These types of weapons include blister, nerve, choking, and blood agents, as well as non-lethal incapacitating agents and riot-control agents.
- **Chemical Weapons Convention (CWC):** An international treaty that requires each state party to declare and destroy all the chemical weapons and production facilities it possesses.
- **Cold War (The):** The period of hostility and tension between the Soviet bloc and the Western powers that followed World War II until the collapse of the Soviet Union in 1991.
- **Communism (Communist):** An economic system where the government controls most of the factors of production and decides the allocation of resources and what products and services will be provided.
- **Comprehensive Nuclear-Test-Ban Treaty (CTBT):** The chief international treaty that prohibits all nuclear testing and establishes a global monitoring system by countries that enter the agreement into force.
- **Demilitarized Zone (DMZ):** A region on the Korean peninsula that demarcates North Korea from South Korea. Roughly following the 38th parallel, the 150-mile-long zone incorporates territory on both sides of the cease-fire line as it existed at the end of the Korean War (1950–53).
- **Democratic People’s Republic of Korea (DPRK):** The official name of a country commonly known as North Korea that occupies the northern part of the peninsula of Korea; population 22,665,300 (est. 2009).
- **Enriched Uranium:** A chemical element (symbol **U**) that is naturally radioactive and has been concentrated to very high levels to be used for nuclear weapons.
- **Geneva Protocol:** The principal international treaty that prohibits the use in war of asphyxiating, poisonous, or other gases, and bans bacteriological warfare. It was opened for signature in June 1925.
- **Gross Domestic Product (GDP):** The total value of goods produced and services provided in a country during one year.
- **Josef (Joseph) Stalin:** The leader of the Soviet Union who succeeded Lenin as head of the Communist Party and created a totalitarian state by eliminating all opposition (1879-1953).
- **Kim Il-sung:** The supreme leader of the Democratic People's Republic of Korea, for 46 years, from its establishment in 1948 until his death in 1994.

- **Kim Jong-un**: The current Chairman of the Workers' Party of Korea and supreme leader of the Democratic People's Republic of Korea. At 32 years of age, he was officially declared the supreme leader following the state funeral of his father, Kim Jong-il, in December 2011.
- **Korean War**: A war, also called the Korean conflict, fought in the early 1950s between the United Nations, supported by the United States, and the communist Democratic People's Republic of Korea (North Korea). The war began in 1950, when North Korea invaded South Korea.
- **Missile Technology Control Regime (MTCR)**: An informal arrangement established in April 1987 to restrict the spread of nuclear-capable missiles and unmanned aerial vehicles.
- **Nuclear Weapons**: A lethal device that releases nuclear energy in an explosive manner as the result of nuclear chain reactions involving fission of atomic nuclei. Such weapons are also sometimes referred to as atomic bombs or hydrogen bombs/thermonuclear weapons.
- **Proliferation**: To spread or increase in number.
- **Radical Ideology**: In political terms, denotes principles focused on altering social structures through revolutionary means and changing value systems in fundamental ways.
- **Radiological Materials**: Radioactive material.
- **Sanctions**: Actions taken by countries against others for political reasons, either unilaterally or multilaterally. There are several types of sanction, which include diplomatic sanctions, economic sanctions and military sanctions.
- **Six Party Talks (The)**: A series of multilateral negotiations held intermittently since 2003 and attended by China, Japan, North Korea, Russia, South Korea, and the United States for the purpose of dismantling North Korea's nuclear program.
- **Soviet Union**: A socialist state on the Eurasian continent, officially known as the Union of Soviet Socialist Republics or USSR, that existed from 1922 to 1991. A union of 15 republics, its government and economy were highly centralized and governed by the Communist Party.
- **Totalitarian**: A political regime based on subordination of the individual to the state and strict control of all aspects of the life and economy of the nation especially by coercive measures.
- **Treaty on the Non-Proliferation of Nuclear Weapons (NPT)**: One of the most widely adhered-to international security agreement that commits states possessing nuclear weapons to negotiate in good faith toward halting the arms race and the complete elimination of nuclear weapons.
- **United Nations**: An international organization of countries set up in 1945, in succession to the League of Nations, to promote international peace, security, and cooperation.
- **Warfare Agents**: Materials or substances whose explosive, toxic and/or lethal properties are used to kill, injure or incapacitate human beings, plants or animals.
- **Weapon of Mass Destruction (WMD)**: A nuclear, radiological, chemical, biological or other weapon that can kill and bring significant harm to a large number of humans or cause great damage to human-made structures (e.g. buildings), natural structures (e.g. mountains), or the natural environment.
- **Weapons-grade Plutonium**: The radioactive element plutonium (symbol **Pu**) that has been enhanced to make nuclear weapons.