

Proliferation of Weapons of Mass Destruction (WMDs)



Types of Weapons of Mass Destruction

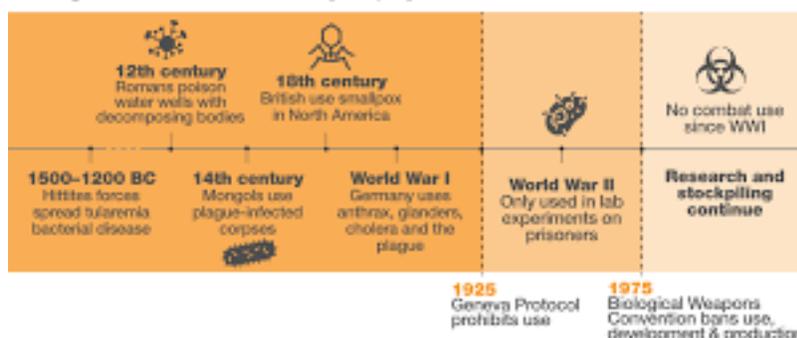
The proliferation of WMDs is the general term for the spread of these weapons globally. There are three types of WMDs:

biological, chemical, and nuclear. Biological WMDs are microorganisms that are purposefully released to bring harm in the form of illness or death to people. Examples include viruses, bacteria, anthrax, etc. The use of these microorganisms is known as bioterrorism and is used on both the group and individual level.¹ Chemical WMDs are defined as “any toxic chemical that can cause death, injury, incapacitation, and sensory irritation.”² This type of WMD is often difficult to distribute to a large group but is very impactful when distributed in small, contained spaces. Examples include ricin, arsenic, tear gas, nerve agents, choking agents, etc. The final WMD type is nuclear; nuclear WMDs require a lot of advance thinking and planning not only to be assembled properly, but also to be used effectively. The process of nuclear fission and/or fusion causes an explosion of energy that causes irreversible and extreme damage.³

History of the Problem

Biological weapons

Biological toxins were historically employed in warfare until their use was banned.



Sources: Al Jazeera, UNODA | Icons: Vanessa Choi, Ben Davis, BornSymbols - The Noun Project

In 1925, the Geneva convention took place and was the site of the first international discussion about WMDs. Specifically, the convention prohibited the use of WMDs in war. The exact wording was to prohibit the “use in war of asphyxiating, poisonous or other gases, and of bacteriological methods of warfare.” The phrasing is important since it did not ban the manufacturing and stockpiling of these weapons. This stockpiling of biological weapons was not banned

until 1975 by the Biological and Toxic Weapons Convention.⁴ In 1972, the treaty to ban biological WMDs (BWC) was opened for signature and was entered into force in March of 1975.⁵

While Geneva Protocol also prohibited the use of chemical weapons in warfare, the Chemical Weapons Convention (CWC) was not adopted by the conference on disarmament until 1992.⁶ The goal of the CWC was to ban the “development, production, acquisition, stockpiling, retention, transfer or use of chemical weapons by State Parties.”⁷ The discussion for the CWC began in 1980 and it also allowed the

¹ “Biological Weapons.” WHO. https://www.who.int/health-topics/biological-weapons#tab=tab_1

² “Chemical Weapons.” Arms Control Association. <https://www.armscontrol.org/factsheets/Chemical-Weapons-Frequently-Asked-Questions>

³ “Nuclear Weapons.” Dr. Robert Norris. <https://www.britannica.com/technology/nuclear-weapon>

⁴ “WMD: Where Did the Phrase Come from?” History News Network. <https://historynewsnetwork.org/article/1522>

⁵ “Biological Weapons.” United Nations. <https://www.un.org/disarmament/wmd/bio/>

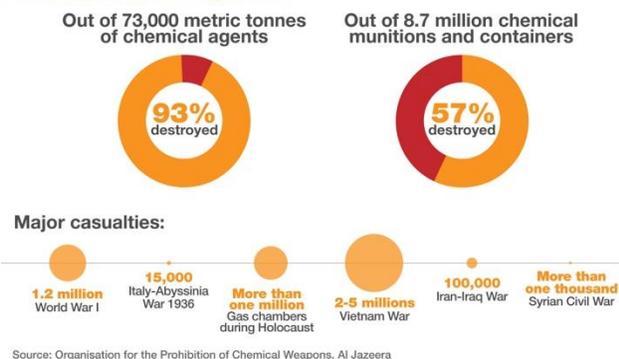
⁶ “Chemical Weapons.” United Nations. <https://www.un.org/disarmament/wmd/chemical/>

⁷ “Chemical Weapons Convention.” OPCW. <https://www.opcw.org/chemical-weapons-convention>

verification of compliance by state parties. It officially entered into force in 1997. A preparatory committee known as the Organization for the Prohibition of Chemical Weapons (OPCW) was created in order to prepare for the enforcement of the CWC. On the day the CWC was entered into force, the OPCW was created and was assigned the responsibility of implementing provisions of the CWC and promoting transparency in order to ensure global protection against chemical WMDs.

The phrase “weapons of mass destruction” was not formally used until 1937 and did not become popular in the United States until after World War II. It was first used in the London Times when referring to an air force attack in Guernica, Spain. Despite its use at this time, it was not being used to reference biological or chemical weapons yet. The time at which the phrase became all-encompassing is unclear.

Chemical weapons



Historical Uses of WMDs



The most well-known, broad use of nuclear WMDs were the bombings of Nagasaki and Hiroshima in August 1945. The development of nuclear weapons, however, began during the 1940s. In 1942, the Manhattan Project was established in the United States to develop the first nuclear weapon and the first nuclear test was conducted in New Mexico on July 16, 1945.⁸ In the years following the bombings of Nagasaki and Hiroshima, the USSR and Great Britain began conducting nuclear weapons testing. France tested its first nuclear weapon in 1960 and China followed in 1964. In 1958, approximately 10,000 scientists petitioned the UN Secretary General to stop the testing of all nuclear weapons but nuclear weapons

development continued to spread. India joined the group of nuclear weapons holders in 1974. The spread of nuclear weapons to each of these countries is largely attributed to the fact that when one country obtained nuclear weapons production capacity, others were motivated, usually out of fear and defense, to also develop these weapons.⁹ Currently, nine countries have nuclear weapons: the US, UK, Russian Federation, Pakistan, India, North Korea, China, Israel, and France.

Despite the willingness of many nations to decrease spending on nuclear weapons and/or eliminate spending completely, total 2019 spending on nuclear weapons was \$72.9 billion, a \$7.1 billion increase from 2018. This spending is made up of nine countries: USA, UK, Russian Federation, Pakistan, North Korea, Israel, India, France, and China.¹⁰ Although these countries have all spent billions on nuclear weapons, their capabilities in terms of the usage of these weapons varies greatly. Unfortunately, there is not a recent comprehensive spending or usage breakdown on chemical and biological WMDs since

⁸ “The Road to a World Free of Nuclear Weapons.” ICAN. https://www.icanw.org/nuclear_weapons_history

⁹ “A Brief History of Nuclear Weapons States.” Asia Society. <https://asiasociety.org/education/brief-history-nuclear-weapons-states>

¹⁰ “Enough is Enough: Global Nuclear Weapons Spending.” ICAN. <https://d3n8a8pro7vnm.cloudfront.net/ican/pages/1549/attachments/original/1589365383/ICAN-Enough-is-Enough-Global-Nuclear-Weapons-Spending-2020-published-13052020.pdf>

Total 2019 spending: \$72.9 billion



nuclear WMDs tend to receive the most attention by the international community. Under no circumstance does this mean that chemical and biological WMDs are any less effective than nuclear and should not be treated as such. See below section titled

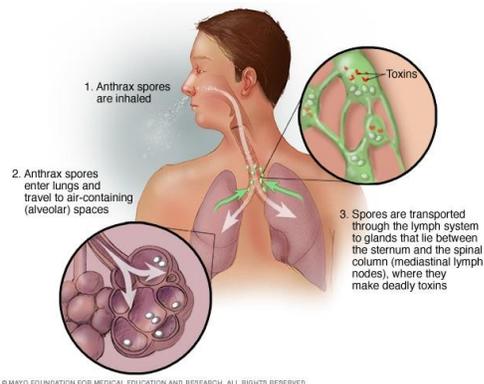
“Actions Taken by the United Nations” for information regarding treaties and resolutions about WMDs.

In addition to the bombings of Nagasaki and Hiroshima, well known uses of chemical WMDs occurred in Iraq in the 1990s and in Syria within the last decade. In 1988, a small town in northeastern Iraq, Halabja, was bombarded by Iraqi and Iranian chemical weapons. Halabja was mostly inhabited by Kurds and is a historically significant moment due not only to the magnitude of the bombings and resulting deaths (approximately 50,000), but also because of the long-lasting birth defects and structural damage that are still seen. Additionally, these attacks displaced nearly one million Kurdish people. The Kurds are the largest ethnic group in the Middle East without their own country, so their displacement led to massive immigration to surrounding cities and countries. Sporadic bombings continued in Halabja throughout 1988 and eventually led to what is known as the Iraqi-Kurdish civil war in 1994.¹¹

Turning to Syria, in 2012 it was discovered the Syria has a stockpile of chemical WMDs and in late 2012, the first allegation against Syria came out when seven people were killed in Homs by what was suspected to be poisonous gas. Additionally, in March of 2013, chemical weapons attacks were reported in 2 Syrian cities: Aleppo and Damascus, which propelled the investigation launched by the UN in conjunction with the WHO and Organization for the Prohibition of Chemical Weapons (OPCW). President Assad of Syria only allowed the UN inspection team to investigate their three suspected uses of chemical weapons. After it was concluded that chemical weapons had been used, a second UN Security Council meeting was held. Resolution 2118 was passed in September 2013 and authorized that, in the event of non-compliance of chemical weapons by Syria, the UN Security Council should impose necessary measures to maintain peace. Over the next few years, several resolutions were drafted but each one ultimately failed due to Russia vetoing them.¹² Despite the removal of chemical weapons from Syria

in 2014, the country was still able to produce chemical weapons as the country legally had chemical compounds (which can be used in creating fertilizers or by the manufacturing industry) that could be manufactured into chemical weapons.

In terms of the use of biological weapons, the 2001 anthrax attacks following 9/11 forever altered the response of law enforcement and governmental agencies and was a never before seen type of event in the United States. However, in other parts of the world, Japan experienced the use of biological WMDs in 1995 and the Soviet Union did in



¹¹ “Whatever Happened to the Iraqi Kurds?” Human Rights Watch.

<https://www.hrw.org/reports/1991/IRAQ913.htm>

¹² “Timeline of Syrian Chemical Weapons Activity, 2012-2020.” Arms Control Association.

<https://www.armscontrol.org/factsheets/Timeline-of-Syrian-Chemical-Weapons-Activity>

1979.¹³ In 1995, a cult known as the Aum Shinrikyo carried out a Sarin attack that killed 13 people and injured thousands. The cult released the Sarin on the Tokyo subway and it immediately spread, showing its effects.¹⁴ This is one significant example of the use of biological WMDs by non-state actors.

Actions Taken by the United Nations

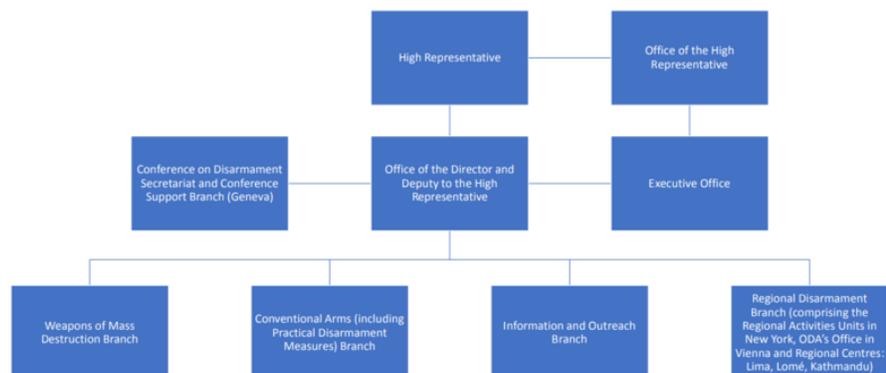
The United Nations Office for Disarmament Affairs (UNODA) was established in 1998 and “fosters disarmament measures through dialogue, transparency, and confidence-building on military matters, and encourages regional disarmament efforts.”¹⁵

Disarmament refers to the decrease and withdrawal of weapons and is most often discussed when considering future plans regarding WMDs. Disarmament and nonproliferation often go hand in hand. The most recent disarmament treaty was crafted in 2017 but has yet to enter into force and, previous to this, the UNODA had not signed a treaty into force since 1963.¹⁶ A resolution concerning nonproliferation was passed in 2004 (UN Security Council Resolution 1540) and prohibits states from providing support in any manner to non-state actors that engage in the usage or production of WMDs.¹⁷

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is a landmark treaty that was signed in 1968 and put into effect in 1970. This comprehensive treaty attempted to both prevent the spread of nuclear weapons and also foster safe uses of nuclear energy. However, this treaty only talks about and is applicable to nuclear WMDs.¹⁸ The Treaty on the Prohibition of Nuclear Weapons (TPNW) is composed of a comprehensive set of prohibitions regarding nuclear weapon activities. This treaty was adopted on July 7, 2017 but has not yet entered force. There are 83 signatory states, all of whom are non-nuclear states. The countries that have nuclear weapons oppose this treaty.¹⁶

Another important treaty to remember is the Comprehensive Nuclear-Test-Ban Treaty (CTBT). The CTBT was drafted in August 1996 and was opened for signing in September 1996.¹⁹ An integral portion of the CTBT is the verification regime, which consists of an international monitoring system, international data center, global communications infrastructure, consultation and clarification, on-site inspection, and confidence building measures. The international monitoring system is crucial as it has 337

Organizational Structure of the United Nations Office for Disarmament Affairs



¹³ “Timeline: How the Anthrax Terror Unfolded.” NPR. <https://www.npr.org/2011/02/15/93170200/timeline-how-the-anthrax-terror-unfolded>

¹⁴ “Aum Shinrikyo: Images from the 1995 Tokyo Sarin Attack.” BBC. <https://www.bbc.com/news/in-pictures-43629706>

¹⁵ “UNODA.” United Nations. <https://www.un.org/disarmament/about>

¹⁶ “Treaty on the Prohibition of Nuclear Weapons.” United Nations.

<https://www.un.org/disarmament/wmd/nuclear/tpnw/>

¹⁷ “UN Security Council Resolution 1540.” United Nations.

[https://www.un.org/ga/search/view_doc.asp?symbol=S/RES/1540%20\(2004\)](https://www.un.org/ga/search/view_doc.asp?symbol=S/RES/1540%20(2004))

¹⁸ “Treaty on the Non-Proliferation of Nuclear Weapons (NPT).” United Nations.

<https://www.un.org/disarmament/wmd/nuclear/npt/text/>

¹⁹ “Comprehensive Nuclear-Test-Ban Treaty (CTBT).” United Nations.

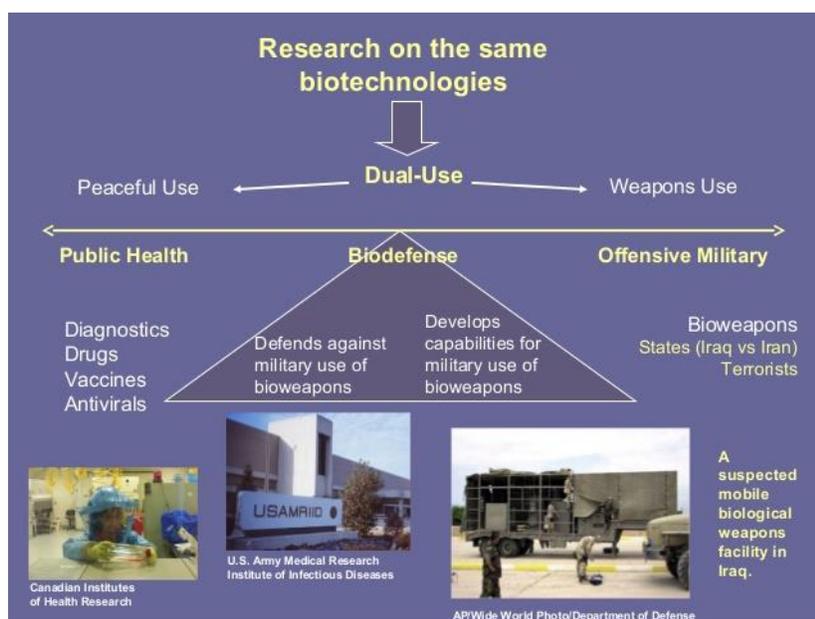
<https://www.un.org/disarmament/wmd/nuclear/ctbt/>

total facilities that monitor the planet for any sign of a nuclear explosion, which decreases the ability of countries to try to secretly test nuclear weapons.²⁰

The Current Issue

In addition to the treaties mentioned in this background guide, there have been several that have been drafted and signed by the UN but have yet to be put into effect. Many of the treaties contain important information about counterproliferation and non-proliferation of WMDs and disarmament in general. This has left many nations in a comfortable state of being able to possess different types of WMDs because there is little to no enforcement for the treaties and resolutions that ban this.

UN Security Council 1540 prohibits states from providing aid to any non-state actors that engage in the usage or production of WMDs but there has been little recent research done regarding this matter. Furthermore, the majority of research for state and non-state actors has been conducted about nuclear WMDs, while chemical and biological WMDs are not receiving the same amount of attention. This is partially due to the fact that it is more difficult to verify compliance per the BWC compliance treaty since biological and chemical weapons have dual use technology. In other words, many chemicals can be used for legal production of substances like medications. It is prudent to find a way to verify compliance by



possibly creating a list of compliance measures such as reporting exact uses of biological toxics, regardless of their possible dual use technology. Furthermore, the BWC prohibits the use and possession of biological agents for offensive military needs but allows their possession for "peaceful scientific, therapeutic, and defensive purposes."²¹ The dual use technology aspect of biological and chemical weapons makes it essentially impossible to detect violations in the same manner that can be done for nuclear weapons.

The Democratic People's Republic of Korea (DPRK) has nuclear, biological, and chemical weapons. The international

community suspects that the DPRK has a secret biological weapons program, which would violate the BWC, but there is no definitive evidence to back up this claim. The DPRK's ability to produce biological weapons began in the 1960s, and recent estimates predict that the DPRK has many pathogen samples that could be weaponized. The DPRK has not signed onto the CWC and also refuses to answer whether or not it currently possesses any chemical weapons. While the DPRK has signed the Geneva Convention, which prohibits the usage of chemical weapons in warfare, it does not prohibit possession of chemical weapons.²² The fact that the DPRK is suspected to have these weapons, in addition to their nuclear weapons, has caused fear among other nations and might lead these other nations to have the desire to

²⁰ "Overview of the Verification Regime." CTBTO. <https://www.un.org/disarmament/wmd/nuclear/ctbt/>

²¹ "Biological Weapons Convention (BWC)." NTI. <https://www.nti.org/analysis/articles/biological-weapons-convention-bwc/>

²² North Korea." NTI. <https://www.nti.org/learn/countries/north-korea/chemical/>

have their own weapons out of fear. It could also lead to the DPRK possibly selling weapons which would increase the spread of WMDs to other countries.

Case Study: Russia's Possession of Biological WMD Agents

Russia has major pharmaceutical and biotechnological sectors, and therefore has a significant level of dual-use operations. The country was an attendee of the Geneva Convention in 1925 and also a signee of the treaty to ban biological WMDs. Despite this, there have been suspicions in regards to Russia's compliance with the treaty. Russia's actions to decrease the level of WMDs after the collapse of the USSR has been mainly targeted towards nuclear weapons, as opposed to biological.²³

Russia mainly used biological weapons in their military regime in the twentieth century. After the fall of the Soviet Union, Boris Yeltsin, the president at the time, ordered the end of the biological weapons program and the international community felt as though Russia might enter full compliance with the BWC. However, this became problematic when, in the 1990s, Russia continually denied permission to foreign inspectors to visit military sites at which biological weapons had been produced. This secrecy has caused distrust among members of the international community.²⁴

Transparency is crucial in ensuring all countries are being compliant with the BWC and this has caused a lot of tension in the international community. There are no enforcing measures to ensure compliance with the BWC, so this poses a threat on the international community. While the BWC contains important clauses and is overall an important treaty, it needs to be updated and have additional measures included in order to ensure all nations remain safe and compliant.

Questions to Consider

- Can current ideas found in treaties and resolutions be updated and put into action, rather than creating new ones?
- Considering most of the attention regarding WMDs is usually put on non-state actors, should/how should resources and efforts be placed onto state actors in order to prevent their usage and attainment of WMDs?
- What have been the faults of previous treaties and negotiations and how can this committee work to fix these issues so that they do not present themselves again in the future?
- Based on the most recent Conference on Disarmament, to which areas of WMDs should the most resources be dedicated? How will this be mandated and agreed upon?

²³ "Biological." NTI. <https://www.nti.org/learn/countries/russia/biological/>

²⁴ "Is Russia Violating the Biological Weapons Convention?" Atlantic Council.

<https://www.atlanticcouncil.org/blogs/new-atlanticist/is-russia-violating-the-biological-weapons-convention/>