

Disarmament Committee

The question of biological weapons



MODEL UNITED NATIONS
THE INTERNATIONAL SCHOOL OF THE HAGUE

Arav Bantwal

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Student Officer:	Arav Bantwal
Position:	Deputy President of Disarmament Committee

Introduction

The use of biological weapons dates as far back as 400BCE when Scythian archers would dip their arrows in decomposing bodies or faeces to infect them. Biological weapons are toxins or other infectious agents that can kill or incapacitate humans. These biological weapons are living organisms (or viruses) that replicate in the host bodies. These weapons can be used in a variety of ways, to gain strategic or tactical advantages over the enemy via threats or actual deployment. Biological weapons were used most notably in World War 1 where gases such as sarin, mustard gas and chlorine gas were used to kill enemy troops in the trenches. In more recent times, there have been speculations of states such as North Korea and Syria having programs to develop biological weapons, primarily anthrax.

The weapons can be used to target an individual, a group of people or even entire populations. In other situations where states or organisations use these weapons clandestinely this is classified as bioterrorism. Such weapons can devastate entire populations, as well as affect the surrounding nature and environment. To combat this issue, protocols and regulations need to be put in place for the regulation, prohibition and destruction of biological weapons.

Definition of Key Terms

Biological Weapon (BW)

Also known as a germ weapon, a harmful biological agent (such as pathogenic microorganism or neurotoxin) used as a weapon to cause death and disease, usually on a large scale. The most notable ones being anthrax, botulism, plague, smallpox, tularemia and viral haemorrhagic fevers, such as Ebola.

Biological Warfare



Involves the use of various bacteria, pathogens and viruses. One of the oldest methods of warfare known to humanity. This type of warfare makes up the NBC, the military acronym for nuclear, biological and chemical (warfare or weapons.)

Toxins:

Poisonous substances which are specific products of the metabolic activities of an organism, which can usually severely damage cell tissue. Modern toxins that are used in biological weapons can be extracted from snakes, spiders and plants, with notable ones being ricin and cyanide, both being extracted from plants.

Pathogen

An agent which brings on disease. There are 5 types of pathogens, namely viruses, bacteria, fungi, protozoa and worms. A clear example of a pathogen is *Bacillus Anthracis*, which causes anthrax. Another example of a pathogen would be salmonella, which can be found in reptiles.

Pandemic

The worldwide spread of a disease usually brought on by influenza viruses carried by animals. Most cases show the pandemic to be similar to seasonal influenza, however, the disease could spread at a higher rate depending on external factors, such as migration patterns.

Epidemic

The occurrence of more cases of a disease than would be expected in a community or region within a given time period. Such examples in the past include the Spanish Flu and the Black Death.

Stockpiling

The accumulation and storage of a specific good. Under the Biological Weapons Convention of 1975, it is illegal to manufacture, stockpile and/or use biological weapons. This treaty has been signed and ratified by 182 UN member states.

Human Rights Watch

An international non-governmental organisation which strives to conduct research and advocate for human rights.



General Overview

The use of biological weapons has been present throughout human history and in the last few centuries, has been started to be condemned due to the fact that it could bring these diseases and pathogens from the battlefield in the common society, where it has the potential of inflicting damage through the population, which brings us to the major events happening today.

Pre-modern use of biological weapons

As mentioned before, Scythian archers would dip their arrows in decomposing bodies and faeces so that if they hit their target, they knew they would still die. Mongol armies threw bodies and corpses infected with plague and smallpox over castle walls during sieges. There have also been various accounts of armies poisoning wells and water systems through cities. In more recent times, bullets were also stored in corpses and fired. The British were attempting to exterminate the Native American population by giving them blankets infected with smallpox.

World wars:

During the First World War, the German military attempted to sabotage and kill/infect livestock and crops bound for enemy lines by infecting them with anthrax. A group of saboteurs managed to infect 4 Russian horses, thereby spreading the disease to the Russian military. In the Second World War, the Japanese military was; using plague and anthrax. They were also experimenting with other kinds of pathogens and bacteria for potential weapons.

1970's-present

In the case of post-war uses of biological weapons, there have been some cases. During the Vietnam war, Viet Cong soldiers would rig spike pit traps, with sharp bamboo spikes covered in faeces to handicap the soldier and increase the chances of infection. Many soldiers fell victim to this. In the 80s, the Republic of Iraq used a variety of gas attacks on Irani soldiers during the Persian Gulf war. In recent times, the Democratic People's Republic of Korea (DPRK) has been speculated to have been stockpiling biological weapons.

Biological Weapons Convention (BWC)



The BWC was the first multilateral disarmament banning the production, stockpiling and use of biological weapons as a whole. The treaty was open to signatures in 1972 and came into force in 1975. To be accurate, the treaty officially prohibits the development, production, acquisition, transfer, retention, stockpiling and use of biological weapons and toxins and it is a key element to addressing the proliferation of Weapons of Mass Destruction. In 1986, a second review conference was held in order to improve trust and diminish the rates and/or chances of suspicion and doubt when investigating a state for chemical weapons, through the use of confidence-building measures (CBM's). These CBM's were expanded upon and improved during the Third review conference in 1991. Over the next decade, a number of conferences would be held in order to further improve the validity and effectiveness of the treaty.

CRISPR

CRISPR (pronounced "Crisper") stands for Clustered Regularly Interspaced Short Palindromic Repeats, which make up the main sequence for a bacterial defence system that forms the basis of the CRISPR-Cas9 genome editing technology. This tool allows for individual and specific stretches of genetic code to be targeted and edited. This, of course, is a major advantage in medical and genetic science, as the power to alter DNA can lead to helping genetic abnormalities in humans or animals, or even reverse mutations. However, this could also prove to be possibly one of the deadliest advancements in biological warfare, as editing the DNA of bacteria and pathogen cells could make them even more powerful and destructive, making them capable to wipe out an entire population in a matter of minutes. This could easily be used in bioterrorism and could potentially risk not just the human population, but the entire ecological population of entire regions if adequately placed and distributed.

Major Parties Involved

United States of America (USA)

The USA had a biological weapons program but it was unilaterally scrapped in 1969. The US government destroyed most of their biological weapon stockpiles between 1971 and 1973. As of June 2018, the USA has a research division only devoted to its biodefense program. However, there were allegations that the US was conducting smallpox tests in August 2010,



which has been prohibited by the World Health Organisation (WHO). Nearly all accusations on the US have been submitted by the Russian Federation.

Russian Federation

Former Russian Premier Boris Yeltsin has acknowledged that the USSR had an extensive and in-depth biological weapons program, primarily offensive, throughout the 1970s and 1980s. After signing the BWC, Russia has repeatedly expressed its concerns and commitment to getting rid of biological weapons. However, the US has frequently stated its concern about the inherited Russian BW program and Russia's commitment to the BWC. As of 2017, it has not yet been confirmed if Russia has complied with Article I of the BWC.

DPRK

According to the 2010 report on compliance with the BWC, the DPRK "may still consider the use of biological weapons as a military and offensive option." In 2012, the Republic of Korea (South Korea) has stated that North Korea has the capability to produce anthrax, smallpox, pest, tularemia and hemorrhagic fever viruses, among others.

China

China states that it is compliant with all of the articles set in place by the BWC and has never had an active BW program. However, the US states that China does have an active BW program since 1993 and have been extensively researching various methods. The previously mentioned 2010 report indicates that very little is known about BW in China and a chance of possessing a dual-use activity session. This led the member states to speculate if China might have broken a BWC law.

Iran

Iran has publicly stated that they condemn the use, production and development of BW. However, multiple allegations from the US in 2010 state that "Iran has the capability to produce BW, although in small quantities. They might have limited ability to weaponise them." Neither the 2010 or 2017 reports show any breach of the BWC.

Timeline of Key Events

These events in chronological order.



Date	Description of event
April 10th, 1972	BWC open for signatories
March 26th, 1975	BWC comes into power
	Second Review Conference, CBM's come into force in order to affirm the truth
September 26th, 1986	of various nations and if they allege, decline or confess to owning biological weapons
September 27th, 1991	Third review conference, CBM's started being expanded upon with the recent fall of the USSR.
December 6th, 1996	Fourth Review Conference, member states have concluded that the use of economic and technological development to combat biological weapons as well as PROHIBIT them, as it was not stated in earlier versions of the BWC resolutions.
November 22nd, 2002	Fifth Review Conference, The US proposed to eliminate the Ad Hoc group that was rejected by other delegations, blocking the final vote. The main conference was mainly about the Ad Hoc group and its possible termination.
December 8th, 2006	Sixth Review Conference, this conference tackled the failures of the fifth review conference and made an effort into recognising the rapid gentrification of biochemistry and its potential for more powerful weapons as well as promoting universal BWC membership to states that have not signed the convention.

UN involvement, Relevant Resolutions, Treaties and Events

For the course of this issue presiding the world, the UN has done its best to help solve this issue. As mentioned before, there have been a number of conferences and one major treaty to help the coordinate the solving and easing the tension of this situation. The main player of this is the BWC, which is the “flagship” of solving the issue of biological weapons. Due to the positive potential and results of the BWC, there have been a number of conferences and amendments to help the BWC reach its fullest potential in solving the issue. There have also been a number of UN resolutions published and discussed. A few examples of these are:

- Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) Weapons and Toxin Weapons and their Destruction, 13 December 2017 (A/RES/72/71)



- Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) Weapons and Toxin Weapons and their Destruction, 16 December 2016 (A/RES/71/87)

Possible Solutions

One of the most important factors is to be extremely cautious when treading on subjects such as these, especially on an international level. As a result, any and all possible solutions to the question of BW's require immense trust and transparency from all signatory member states. If any such states are found to have been breaching the BWC while being ratified, it must be known to the offending state that this is an extreme violation of international law and can, in some cases, could be described as a war crime and as such, harsh consequences will and should be met with. It should also be noted that the framework set by the OPCW for chemical weapons can also apply to biological weapons, as both have been classified as weapons of mass destruction and have more or less the same basis of ravaging populations. All major parties on this topic have a lack of transparency and understanding while maintaining a good level of diplomacy, which is a step to solving the problem at hand. Imploring the help of other UN bodies could also be a possible solution, as various NGO's such as the Human Rights Watch have also expressed interest. It is also of the utmost importance that any high ranking official which has been orchestrating breaches of the BWC must be charged with biological crimes.

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