

Forum: General Assembly 1 (DISEC)

Issue: Addressing the threat of chemical and biological weapons **Chair:**

Oscar Chen, Deputy Chair

Introduction

Due to the advancements in technology, the deadly chemical and biological weapons were introduced upon the world. Chemical Weapons were introduced first during World War 1 where the Germans set up 5,000 barrels of chlorine gas killing more than 6,000 french troops. It was introduced and heavily advocated by Fritz Haber, a german who persuaded the German army to utilize toxic gases against Germany's enemies. Similar to chemical weapons, biological weapons were also introduced during World War 1 by Germany which consist of pathogens in order to spread a deadly plague among its enemies. Chemical and biological weapons are known to be extremely deadly and pose a huge threat if used to solve a conflict. Out of the 1.3 million casualties, these weapons have caused around 100,000 deaths displaying its lethality. These weapons are indiscriminate and could inflict damage on every person that is within range. Many treaties among countries have attempted to limit the usage of chemical and biological weapons in war. Notable agreements include the Geneva Protocol, Chemical Weapons Convention, and Biological Weapons. Each agreement has addressed the threat of chemical and biological weapons but none have truly mitigated the threat nor limit the country's ability to research and create chemical and biological weapons.

Definition of Key Terms

Chemical Weapons

Chemical weapons were developed by Fritz Haber. These weapons use toxic chemicals such as chlorine gas and hydrogen cyanide that significantly damages one's body and could be lethal depending on the concentration of the chemical and the amount of exposure. Chemical weapons are categorized into four types: choking, blood, blister, and nerve agents.

Biological Weapons

Biological weapons could be traced back all the way to 1155 where Emperor Barbarossa poisons the water of a well with human bodies in Italy. However, its threat was placed into attention when

used anthrax and glanders against France along with the chemical weapons. Biological weapons contain deadly pathogens that plague the masses and are extremely lethal in wars.

Chemical Warfare

Wars and conflicts where toxic chemicals were used as weapons are chemical warfare. The most recent case of chemical warfare was in Syria. Chemical warfare often leads to a high amount of casualties and deaths. The use of chemical weapons in wars was banned in the Geneva Protocol ;however, it fails to truly mitigate the threat seen in the conflict in Syria.

Biological/Germ Warfare

Wars where weapons containing types of pathogens were used are counted as chemical warfare. Biological warfare is less common compared to chemical warfare since biological weapons are harder to develop compared to chemical weapons. Just like chemical weapons, the use of biological weapons in wars were banned in the Geneva Protocol, but some biological weapons are still being used in wars.

Chemical Terrorism

Chemical terrorism is the intentional use of chemical weapons on innocent people causing many casualties. These attacks are usually conducted by terrorist groups with the intention of causing chaos and disruption in a society.

Bioterrorism

Bioterrorism is the intentional use of biological weapons and the release of pathogens onto civilians and innocents. These attacks are usually conducted by terrorist groups with the intention of causing chaos and disruption in a society.

Agent

Agents are the chemical substance or pathogen used in chemical or biological weapons. Without the agent, the weapon would be like an empty shell. In order to pick out an usable research, the chemical or pathogen should be properly researched. Agents are categorized based on their lethality with category 1 being the highest and category 3 being the lowest.

Pathogen

Harmful and infectious organisms and vaccines that cause diseases in the human body are counted as pathogens. Pathogens are the main components of biological weapons and are what makes

biological weapons such a huge threat especially in warfare.

Chlorine Gas

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The most popular chemical used in chemical weapons. It was one of the first chemical weapons used in World War 1 and it caused thousands of deaths during chemical warfares. It is categorized as a choking agent which targets the respiratory system especially the lung and the trachea.

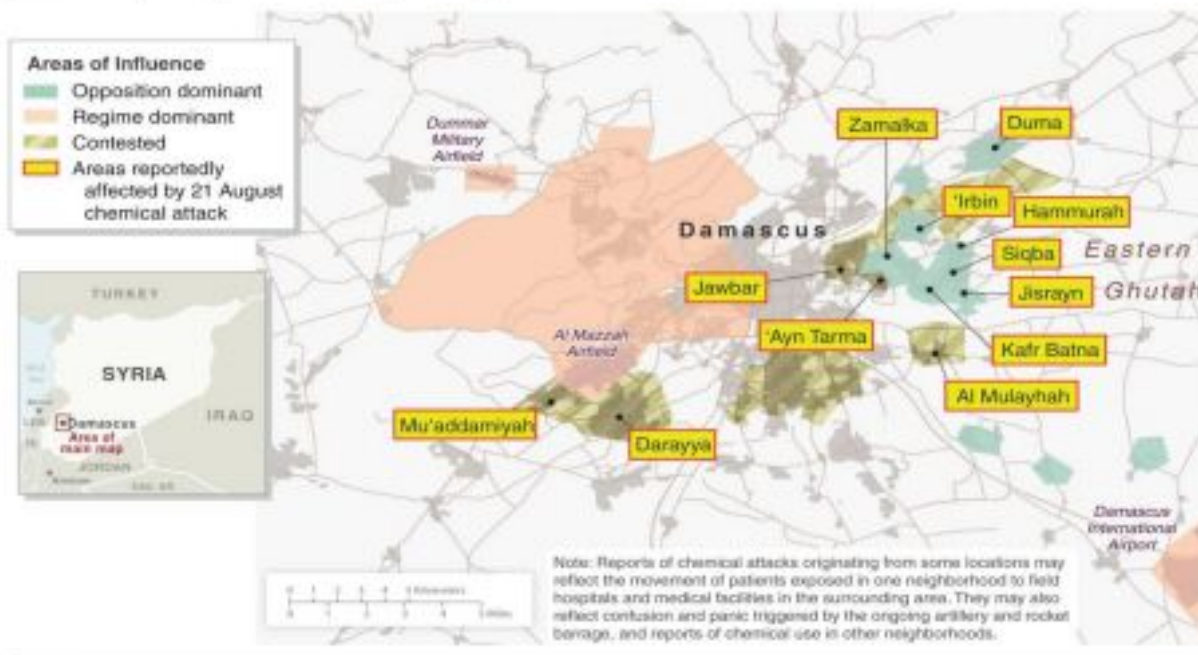
Background Information

History

Chemical and biological weapons were first used in World War I by Germany. After taking a huge hit from these weapons, France, Britain, and the United States also began mass producing chemical weapons in order to counter Germany. Along with that, protective gear like gas masks were also provided to the soldiers living in the trenches. After World War I, the Geneva Protocol bans the use of chemical and biological weapons in war. However in the 1930s, Italy used chemical weapons against Ethiopia and Japan also used these weapons on the Chinese. The Geneva Protocol also fails to limit the production and research of chemical weapons thus many countries still maintain reserves of chemical and biological weapons. In World War II, the use of chemical and biological weapons were minor because most countries had possession of these weapons and also the proper protection to counter it. But, Germany still used chemical weapons in concentration camps. The flaw of the Geneva Protocol was rectified by the Chemical Weapon Convention and Biological Weapon Convention which bans the production and use of chemical and biological weapons. However, this fails to mitigate the problem of terrorists using these weapons because in 1995, the Japanese doomsday cult, Aum Shinrikyo, launched a sarin attack at a Tokyo subway.

The most recent indecent revolving chemical and biological weapons is the conflict in Syria. In 2012, the Syrian government announced that they have possession of chemical weapons in July 23 2012. The government promised to not use chemical weapons against citizens and only used it for external aggression. In March 2013, chemical weapons attacks throughout cities in Syria caused around 25 deaths. It was highly speculated that the Syrian government were behind these attacks and were using chemical weapons against Syrian rebels. On August 21st, Syrian oppositions claimed that they were attacked by the Syrian government with chemical weapons resulting in an estimate of over 1,000 casualties. In October 2013, Syrian government was forced to dismantle their chemical weapons by OPCW and the UN. Efforts from OPCW and the UN along with cooperation from other countries allowed a quick disposal of Syria's chemical weapons. Despite the UN condemning the use of chemical weapons in the Syrian Civil War in 2015, chemical weapons are still being used by the Syrian government .

Syria: Damascus Areas of Influence and Areas Reportedly Affected by 21 August Chemical Attack



Caption #1: Syrian Government attacked on August 21st 2013 with a victim of over 1,000 people many of which are innocents.

Chemical and Biological Weapon

Types of Chemical Weapons

There are 4 major types of chemical weapons: choking agents, blood agents, blister agents, and nerve agents. Choking agents focus on the respiratory system especially lung tissues. Choking agents create troubles in breathing causing someone to choke as the name suggests. Deaths are usually caused by suffocation and the inability to take in air. Most common examples of choking agents are chlorine gas and phosgene. Blood agents focus on the cardiovascular system and it enters into the blood through either inhalation or ingestion. It is normally colorless and odorless making it a huge threat. Additionally, it stops the ability to exchange oxygen and carbon dioxide which often leads to death. Most common examples of blood agents are hydrogen cyanide and arsine.

Blister agents focus on the integumentary system, ocular system, and the respiratory system (Skin, eyes, and lungs). It enters into the body through inhalation or ingestion. Most common examples are hydrogen cyanide, arsine, and sulfur mustard. Nerve agents focus on the nervous system. It is the newest type of chemical weapon, which was used in Syria

at the year of 2013, and it was developed in the 1930s. Most common examples are novichok, sarin, and VX.

Biological Weapons

Unlike chemical weapons, biological weapons are not split into types. Any pathogen could be incubated into biological weapons as an agent. Each biological weapon would use a different pathogen, some more lethal than others. Because of that, each agent would have their own ways of spreading thus making biological weapons unpredictable and more lethal. The threat of biological weapons should not be ignored because even diseases like smallpox and ebola are able to be incubated into a lethal agent for biological weapons.

Major Countries and Organizations Involved

Syria

Syria is one of the most important countries in this issue. It is the most recent country to use chemical weapons to stop a conflict. It went against the 1925 Geneva Protocol which prohibits chemical and biological warfare. Syria is also part of the Chemical Weapons Convention and has declared that the countries have chemical weapons. With the cooperation between OPCW and other IGOs, the Syrian government was said to be in charge of chemical weapons attack against Syrian oppositions and injuring over 1,000 victims, which many were innocents, on August 21 2013. Syria's use of chemical weapons led a huge campaign where countries like the United States and United Kingdom worked together in order to dismantle Syria's chemical weapon reserves.

The United States of America

The United States of America holds the second largest chemical weapon reserves behind the Russian Federation in 1997 where they declared they have a chemical arsenal of 27,770 metric tons. The United States of America claimed that they were able to stop all their biological weapons production and research in 1969. Along with that, the United States of America also destroyed all their biological

weapon reserves in 1973. The United States of America had 91.47 percent of their chemical weapon reserve based on an OPCW report in 2019. The remaining chemical weapons are all category 1 meaning they are the most lethal. There is an accusation coming from the Russian Federation against the US that focuses on the research of smallpox, a category 1 agent for biological weapons, which were prohibited by the World Health Organization.

Russian Federation

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The Russian Federation originally had the largest arsenal of chemical weapons with over 40,000 metric tons. Despite getting an extension in 2012 on the destruction of these chemical weapons along with the US, Russia declared that they have fully dismantled all their chemical weapons. Back when Russia was part of the Soviet Union, it underwent massive research on biological weapons. There is much concern since the Soviet Union had researched multiple pathogens and toxins that could easily be used as an agent in biological weapons. However, Russia reaffirms that it is moving towards destroying said weapon after joining the Biological and Toxin Weapons Convention.

People's Republic of China

China has always stated that it does not have any biological weapons nor chemical weapons programs because China has been following the obligations and regulations of the Biological and Toxin Weapons Conventions and Chemical Weapon Convention. The only exception of this was a minor offensive chemical weapon program that was quickly dismantled. However, leftover chemical weapons from the Japanese still remain in parts of China and the two countries have been working together to remove and destroy it. The US have been accusing China of having chemical weapons and biological weapons, however there was no substantial evidence nor did the OPCW reports find any information.

Japan

Japan once had possession of chemical weapons and has also used it against the Chinese during World War II. There are still remains of these weapons in China and Japan but the destruction process of these weapons have already begun. Japan stands out because it has once been a victim of chemical terrorism. The Japanese doomsday cult, Aum Shinrikyo, used chemical weapons in a Tokyo subway causing massive casualties. The event was a clear demonstration of the threat of chemical weapons thus reaffirming the importance of destroying it or at the very least protecting it from going into the wrong hands. Japan has also been dismantling biological weapons and stopping the biological weapons program.

North Korea

North Korea has stated that they do not possess any biological nor chemical weapons. However,

many allegations from countries like the United States and South Korea have stated that North Korea definitely possesses these weapons. North Korea was assumed to have the third largest chemical weapon reserves but there is a lack of evidence and confirmation. Additionally, North Korean agents used VX, a type of chemical weapons, to assassinate Kim Jong Nam, Kim Jung Un's half brother, in Malaysia. The use of VX serves as an evidence that heavily suggests that North Korea holds a large stockpile of chemical weapons.

Organization for the Prohibition of Chemical Weapons (OPCW)

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The most important organization when it comes to chemical weapons is the Organization for the Prohibition of Chemical Weapons. It was formed in order to carry out the Chemical Weapon Convention and it was able to ensure the destruction of many chemical weapons. OPCW makes sure each nation would follow the regulations of the Chemical Weapon Convention. It helps make sure that countries would stop their chemical programs and provide credible reports. It cooperates with other organizations like the UNOCHA to counter the chemical weapon crisis. It helped efficiently carry out the mass destruction of Syria's chemical weapons in 2014 and helped confirm that the Syrian government was using chemical weapons on its people.

United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)

The United Nations Office for the Coordination of Humanitarian Affairs helps out whenever a chemical or biological crisis occurs. Whenever a chemical weapon or biological weapon was used on the population, the UNOCHA would help out the emergency and it closely works with OPCW to support victims and also investigate which group is behind the crisis, whether it is a terrorist group or a misuse of weapons by the government. They were a big help in the investigation of the Syria Civil War along with OPCW. UNOCHA acts as an emergency response team for the misuse of chemical and biological weapons.

World Custom Organization (WCO)

One of the major problems in the production of chemical and biological weapons is the import and export of chemical substances and pathogens. The Chemical Weapon Convention focused on limited and regulating the trading of these potential agents. OPCW, which follows the chemical weapon convention as its guideline, have cooperated with the World Custom Organization. The WCO has power over trading between countries thus making them the perfect partner to regulate the trading of potential agents. The WCO plays an important role in stopping the production of chemical and biological weapons because it has the ability to prevent the trading of agents that are used in these weapons.

World Health Organization (WHO)

The World Health Organization focuses on diseases that could endanger the health of a human body. Thus, it plays an important role in regulating biological weapon programs. The WHO have the ability to stop all research on any pathogen that could be used as an agent in a biological weapon. The WHO have made progress such as banning the research of smallpox. By banning the research, it prevents countries to properly incubate and make the necessary preparations to create a biological weapon.

Timeline of Events

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Date Description of event

July 29th, 1899 Agreement to ban projectile that diffuse asphyxiating gas (Hague Convention) April

22th, 1915 Germany used chlorine gas against the French

June 17st, 1925 Geneva Protocol

April 10th, 1972 Biological and Toxin Weapons Convention

September 3rd, 1992 Chemical Weapon Convention was Drafted

March 20th, 1995 Terrorist group Aum Shinrikyo uses chemical weapons in a Tokyo subway

August 21st, 2013 Syrian government started a large scale chemical attack on rebels

Relevant UN Resolutions and Treaties

- Resolution 2118, 27 September 2013 (**2118**)
- Geneva Protocol, 17 June 1925
- Chemical Weapon Convention, 3 September 1992
- Biological and Toxin Weapons Convention, 10 April 1972

Possible Solutions

Reaffirm the limitations introduced by the Chemical Weapon Convention and Biological

Weapon Convention. The Chemical Weapon Convention and Biological Weapon Convention both focused on improving the limitation made originally in the Geneva Protocol. Both conventions help make sure that countries would not stockpile, produce, or use the respective weapons. While both conventions are placed into action, countries still ignore the restrictions and also refuse to destroy their chemical and biological weapon reserves. While the UN and OPCW worked hard to place these limitations, some countries remain unwavering and continue to use chemical and biological weapons. It's important to limit chemical and biological weapons with proper regulation yet it should not be to an extent where the country's sovereignty is affected. The sovereignty of nations needs to be considered in this situation so the regulation should not be too harsh to a point where the solution would be hard to agree upon. Thus, it may be important to suggest some incentives for nations to agree to the limitations.

Enforce stricter security on existing chemical and biological weapon reserves. A major threat of chemical and biological weapons is terrorism. Chemical and biological terrorism is extremely dangerous

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as shown in the 1995 Tokyo subway incident. When chemical and biological weapons fall into the hands of terrorists, chaos could be inflicted. Thus, it is necessary for countries to up their securities for chemical and biological weapons. By upping the security, it would be harder for terrorists to get their hand on them which prevents future problems. While it is heavily suggested to destroy these weapon reserves, it would still be extremely important to protect them from terrorists. This would be an efficient method to counter chemical terrorism and bioterrorism.

Create regulations on the export and import of chemical substances and pathogens that could be used in chemical or biological weapons. One of the major roots of the topic is the import and export of chemical substances and pathogens. These chemical substances and pathogens could be used as agents for chemical and biological weapons. By hampering trades of these potential agents, it could help limit a country's ability to create chemical and biological weapons. A similar proposition was made in the chemical weapon convention but like most regulations, it was not fully solidified. If a proper regulation on the trading of these chemical substances and pathogens is drafted, it could significantly hamper the country's ability to make these weapons; thus, solving the threat of chemical and biological weapons.

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