



Addressing the Risks and Opportunities of Biological and Chemical Weapons, and Armed Drones

Gabriela Cardona Bolívar



History of the committee

The United Nations disarmament and international security committee (DISEC) was established as the first of main committees in the general assembly when the authorization of the UN was signed in 1945. The disarmament and international security committee was known as the form to respond to the need of an international forum with its purpose to discuss peace and security issues.

In 1945 DISEC was created after the events in Hiroshima and Nagasaki, as a result this was the first topic to be discussed in the committee. Due to the relevance of the situation it was crucial to discuss the establishment of a commission to deal with the problems raised by the discovery of the atomic bomb. Now, the disarmament and international security committee counts 193 member states and two-thirds of the nations are developing countries.

Over time there have been remarkable achievements made in DISEC. These include the treaty on the Non-proliferation of nuclear weapons, as of May 11, 1995, been signed by 191 countries, including the five nuclear-armed nations. This treaty has the most approvals of any arms limitation and disarmament agreement, an exceptional achievement of this landmark treaty's significance.


The committee concerns itself with questions of international importance regarding security, armament and demilitarization through countries and regions, while ensuring that the population remains protected. DISEC is concerned with the regulation of all member states' armaments with the UN goal of total disarmament.

A stylized illustration of a dragon's head and tail in dark green and black, positioned at the top of the page. The dragon's head is on the left, and its tail is on the right, both facing towards the center. The background is a light teal color with white, cloud-like shapes.

Introduction

Throughout the years, the pace of technology has accelerated at an unprecedented rate. The implications of weapons posed by developments in technology and science have been revealing remarkable performance with: invention, innovation, technology transfer, learning, diversification and even resurgence. In the realms of weapons these developments present various challenges and demands of urgent attention from the DISEC committee. As both opportunities create risks and uncertainties for global security there needs to be a balance between the two, DISEC plays an important role in addressing these implications by formulating comprehensive cooperation between nations. This innovation has contributed to a new dawn of possibilities, such as various fields where technology is essential, these developments can bring technological solutions, and hope for addressing different global challenges. Yet, this same process has caused implications and a capacity for immense harm.

Advances in science and technology have brought the opportunity for diverse weapons that could be used for the greater good or bad. Nowadays these developments have been changing significantly fast, where sometimes it's hard to keep up on what's happening in the world. These weapons often known as armaments for mass destruction lead on with a unique and somewhat terrifying inflict suffering with loss and widespread with such small quantities of material which are used in these types of arms. Biological and chemical weapons have a great potential for enduring the consequences for individuals, society and nations. The implications of these weapons can have long-lasting consequences with society and the environment. As these



developments can always be challenging, it is essential to recognize the threat and balance the use of these weapons, there must be a comprehensive and responsible response through these implications. As society faces the growing dangers of these weapons, the prioritization of research and development for the response and measures taken to find the cooperation and prevent occurrences and proliferation of these weapons.

Armed drones have been raising complex questions. The evolution of armed drones has introduced various fields for modern technology, offering advantages and disadvantages in the modern society we are living in. Yet, these developments have been causing various problems, challenges and risks for nations security. Armed weapons have brought the ability to conduct operations without human need, there are obvious benefits that reassure security such as surveillance, precision and many more challenges which make the job easier. However, the proliferation of armed drones brought the ability of increases of mass destruction, sometimes not being reliable and compound conflicts. DISEC faces the task of addressing these implications made by these arms. It is essential to consider the challenges these weapons may bring to society, exploring various risks while also maximizing benefits for nations and future technological advancements.


In the face of growing challenges of these developments made in science and technology there may be explorations for potential harm and lack of security. by bringing responsibility and accountability we can reduce the risks of these weapons and prevent its misuse. Advances have accelerated in an unprecedented rate, technology bring potential benefits for various applications but there will always be challenges affected by this use.



Historical context

The concept of these weapons go way back, dates back with historical cases. These technology developments have evolved rapidly and dramatically over the years, with various fields of usage these weapons are in fear of reshaping society and nations. The development of the biological weapons go way back to the 13th century, the first one occurred in 1347, when forces were reported to launch plague-infested bodies into the black sea. Ships used were returned to Italy with the plague starting the black death pandemic that took away millions of lives. Furthermore, during World War I Germany started a program to infect horses used by militaries which were ordered to weaken the Russian resistance. Various ways throughout centuries, these methods are now considered as biological weapons.

In time, there were three essential chemical-weapon injuries during WW1 which were the following: chlorine, phosgene and mustard gas. Fritz Harber was a German chemist who discovered the use of these chemical weapons. These were used as gas to agonize and suffer the victim, these weapons may be deadly and some may not, they can be used to control the person and distract them. Chlorine gas was used as a substance that irritates the eyes, nose, lungs and throat if exposed to, this substance was deadly and used in Nazi camps. Phosgene is also irritant but six times more deadly than chlorine gas, this gas was used on soldiers, this effect did not have an immediate reaction but over the days, the lungs filled with a fluid and would slowly pass away. And lastly mustard gas which was the greater of them all. Its extreme new technology at




the time made it easier for mass destruction. These glasses could go for miles and still affect the citizens and society. These effects were not immediate but it was still lethal. Mustard gas caused the higher number of casualties of chemical weapons, over 120,000 victims of these legal weapons. The evolution of chemical weapons caused mass destruction.

The first pilotless device ever used was developed in WW1, bringing various conflicts among nations. This was a small radio activated aircraft, this weapon promised in flight test but was never used and operated in war. Britain produced various aircrafts radio controlled, these were used as targets for training purposes. Over time these drones have gained diverse functions, from monitoring to training, ranging from security in various fields such as photography, filming, delivering goods and operations after natural disasters. These weapons use their technology and advances for the greater good for society and nations, promises security and have not been involved in mass destruction. It is clear these weapons will advance in the future and promise safety for future generations.


Current Issue

The advances of technology and science with these weapons face a challenge, there will always be a threat for the future, increasing accessibility, development and production. The potential for various weapons used for mass destruction grows concern for nations. However it seems governments are pushing through for quick expansion of these weapons, it seems that over 145 billion dollars have been used for research and development of the arms we see today. It is incredible how people manage to access these armaments, raising alarms for society and



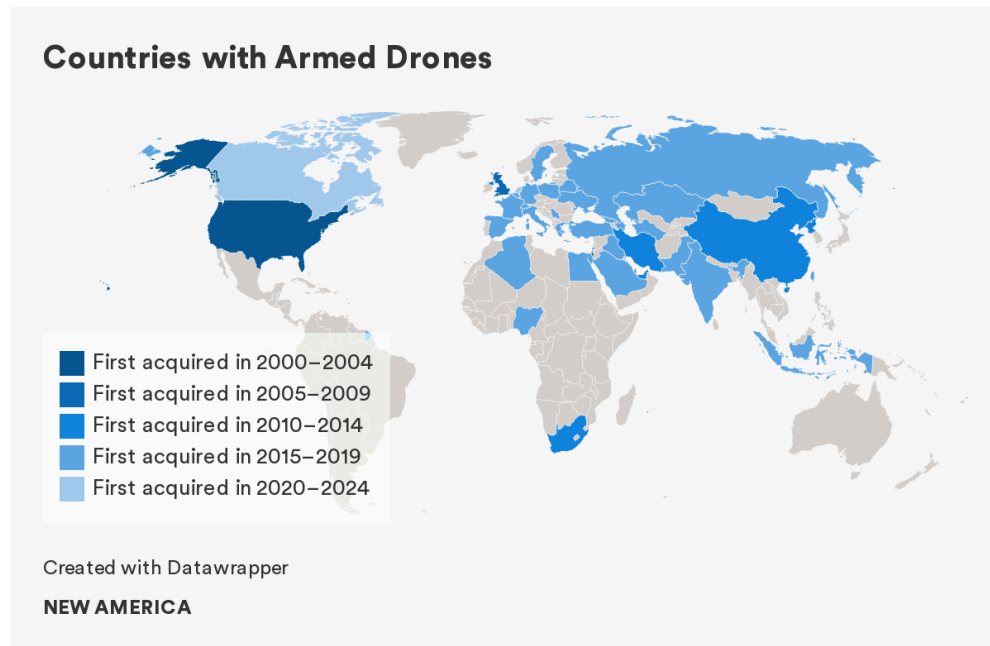
increasing the potential for devastating consequences in the future. Some of these technologies have already arrived in hands of various terrorist groups, demonstrating the interest for acquiring these weapons for a terrorific use. The government is defending these usages of weapons for conflicts or other matters “We understand the need to sharpen our readiness in advanced technology, cyber, space, and artificial intelligence” This was said by the secretary of defense, proving the increasing access there is developing for the production of these weapons.

In the military technology debate, it was said that autonomous weapons known as armed drones will make more welfare than human. Trillion dollars each year go into the advancements and research for these futuristic technologies which secure and prevent unsafe environments in nations. Many military camps confirm and debate about the risk these weapons possess in the hands of people, these may not always be used for the greater good. Research informs that fully autonomous weapons will make assasination easier and cheaper which may be seen as a risk and a high probability for more death and destruction that is necessary. However, this technology ensures tough decisions at an extraordinary speed. Research also ensures that these technological weapons are mostly misunderstood, raising concerns of proliferation and misuse, and a series of reports seek to display the misunderstandings raised by these arms. But these weapons are rising at an incredibly fast speed, already taking control for security and vigilance in nations. It is known that over three-dozen countries already have access to the database of these drones. China is also known for its quick development of these weapons, using them for the safety of its citizens. Also the United States have had access to these technology weapons since the massacre of 9/11 increasing its drone attack for the wellness of the country and citizens, its first strike was




made in Afghanistan in 2001, and as of today the United States is known for being one of the major exporters of armed drones around the world ensuring safety and vigilance. For all, every conflict brings new technologies and it is incredible how quick these artifacts affect the present and future for all, the future of this new approach is much anticipated. Autonomous weapons are the future of a skillful combination of miniaturization, maneuverability, flight autonomy and firepower. After all this is a conventional weapon used for the vigilance and safety of its nations, increasing and developing in an extraordinary timing.

Biological weapons are currently on a change, being extremely dangerous for citizens and warfare. As of today no country is openly pursuing biological weapons as it is lethal. However they may seem that some programs can be easily hidden and can be used as vaccines and pharmaceuticals. After WW1 the international community banned all chemical and biological use of weapons prohibiting its development, stockpiling and transfer. Biological weapons are considered to be the worst substitute for nuclear weapons and can endanger many lives and nations. However, as biotechnology advances it becomes practical that genetic modification of pathogens may be able to create limited biological weapons with more specific target profiles and may even produce more harmful weapons. With this development it seems that it is likely a threat from deployed biological agents will increase and change in 2030. As biological weapons become easier and cheaper to construct, the danger that nations face has increased, science and technology have been outfitting the updates of safety and vigilance. As for now, nations are not prepared for the regulation and response to these arms.




Past International actions

There have been decades of measures taken and addressing these passing issues. As these weapons may affect society it has to be regulated and consulted with many sources to secure safety and vigilance for nations. Science and technology have been increasing and there have been conventions to secure and take action immediately. During the past century the progress made for these weapons have been dangerous and quick. However, there have been treaties and measures taken to secure safety for these artifacts. The Biological Weapons Convention (BWC) is concerned about the dangers these weapons may have caused to the world, diseases caused could be confined to national borders and would spread rapidly around the world, the




consequences may be terrible and dramatic. As of this matter, in 1952 this committee opened a signature on april 10 1972, effectively prohibiting the use of these weapons, the development, acquisition, transfer and stockpiling. This convention was the first multilateral treaty to ban an entire category of weapons that may cause mass destruction. This convention reached 185 parties and four signatory states. The BWC regularly updates on the document which started with only 15 articles and over the years supplemented a series of understandings in frequent conferences. The convention was negotiated by the conference of the committee of disarmament in Switzerland and entered into force in march of 1975, these protocols prohibited the use of biological weapons. This treaty successfully banned these weapons to ensure the safety of nations as of being highly contagious and deadly. However, there are some weaknesses following this treaty. The greatest weakness of the convention is the lack of mechanism to verify the compliance of the states parties, this convention does not contain verification mechanism. In addition the financial problems BWC faces outlaws biological arms, some states being years late in annual payments and slow payment by many other countries as well as UN financial rules and practices.

The arms trade treaty and drones. Armed drones have become an essential part of military bases being ensured of safety and vigilance with regulations. Drones share a set of distinct characteristics that have traditionally made them attractive for governments and increasingly for non-state nations. These weapons provide support to these fields, being used for military consent. As for the United States it has still remained the world's leader of supporting and using these weapons, and these do not contain lethal doses and secure safety for the nation.

A stylized illustration of a dragon's head and long, flowing tail in dark green and black, set against a light green background with white, cloud-like shapes.

However, some countries that possess these weapons do contain lethal doses and serve as a variety of national and international security interests. Ten countries are believed to have used armed drones to conduct lethal use of them. After all there is a treaty to regulate the use of these armed drones, ATT is the first treaty to establish a legally binding standard for regulating the global use and trade of drones. This treaty was adopted by The United Nations general assembly in 2013, and this aims to increase transparency and responsibility with the use of drones. The ATT covers eight categories of conventional weapons such as battle tanks, armored combat vehicles, large-caliber artillery systems, combat aircraft, attack helicopters, warships, missiles and missile launchers, and small arms and light weapons. The treaties entered into force in December of 2014, to its concern about drone use and responsibility. In this treaty the use of these eight conventional weapons include the provisions that include the responsibility for use of drones. The treaty uses this to attend to the proper use and protection of these arms. The ATT enforces human concerns and the treaty prohibits any transfer of weapons that may assess the risks of violations of international humanitarian law and human rights law.

The chemical weapons convention (CWC) is a treaty that bans any use of chemical weapons. CWC negotiations started in 1980 in the UN conference of disarmament. Opened signature in January 1993 and entered into force in April of 1997. This treaty is implemented by the organization for the prohibition of chemical weapons (OPWC), the OPWC receives state parties declarations detaining chemical weapon usage, related activities or materials relevant with the activities used for the usage of the weapons. After the declarations of various treaties the OPWC inspects the parties facilities and activities that are relevant to the convention to ensure



safety. The CWC is open to all nations and currently has 193 state parties. The CWC prohibits developing, producing, acquiring, stockpiling, or retaining chemical weapons. All states parties have agreed to chemically disarm by destroying stockpiles of chemical weapons and the hold of any facilities which produced these weapons. A feature that makes this convention unique is the corporation inspection whereby any party in about any state party in doubt can request a surprise inspection. Ensuring the security of the nation and as of this there may be reassuring the vigilance of these arms.


Subtopics

Proliferation and Non-liferation:

- The spread of these weapons, including state and non-state parties involved.
- The understanding of the dynamics of proliferation in efforts to inform strategies for prevention.
- The direct effect on the total level of threat and the chance of producing consequences that affect nations.

Technological advancements and concerns

- How technology influenced the development of these weapons, how they were advanced with the usage of Artificial intelligence, biotechnology and robots.


- 
- The rapidly changing technology advancements are made, so nations stay aware of the threats.
 - Technological advancements that have impacted the development of these weapons and new challenges when it comes to regulation of the usage and prohibition.

Global cooperation and response

- Examines the contribution of international cooperation with the restriction of threats, with a view of research and development for the safety of nations.
- International cooperation is critical to addressing the threats that may cause danger to the communities.
- A unified international response to the dangers spreaded and to mitigate the consequences caused by these weapons.

Positions

Nations around the world gain insight into different perspectives of these weapons. The majority of these countries often prioritize national security and vigilance influencing these to subtract mass destruction. Some of these countries face challenges related to security, economic, and access to technology to impact their approach to these issues. Global finance ranks the world's countries by their technological advances, the United states is the first ranked country which holds the most technological advancements in weapons. The United States is a leading



Non-proliferation and disarmament, on the other hand US has led into making international norms and regimes. However, how it has relied upon military power including drones has generated controversy into the safety of nations.

Russia has an extended history with chemical weapons, its issues tend to be complicated given the history the country has had with both cooperation and confrontation on efforts of disarmament, including the use of weapons of chemical nature and nations safety in warfare. It has been revealed that Russia maintained an illicit chemical weapons program despite this legacy, Russia signed and ratified CWC in 1993 and 1997. There have been several accusations of Russia using and linking these weapons in the past conflict with Ukraine, with implications of global security and the compromise with CWC.

China has developed a wide arrangement with technological drones in fields such as commercial and military areas. As a rising global power, China's role is to address these challenges faced by these weapons and stance the issues such as arms control and technology transfer. It is also known that China is one of the biggest transfers as one of the military alternatives as its radar is low cost and ensures vigilance in those fields.

There is a complex cooperation between nations that often leads to conflicting positions and interests for the formation of alliances. Some countries may prioritize warfare over disarmament, leading tensions between parties and nations and advocating stricter compromises and control measures. Understanding the interests and alliances is an important alternative to gain effective global cooperation and understanding of the different positions that address the challenges faced by these weapons such as biological armory, chemical weapons and armed



drones.


Guiding questions

- How does the delegation define national security in relation to developing and possessing biological and chemical weapons?
- How might delegations strengthen international cooperation to counter the threats of the usage or development of these weapons?
- How can there be a balance with the benefits of scientific progress against global security risks?
- How could the development and use of these technologies be assured to respect human rights and international law?

Bibliography

Herre, B., & Roser, M. (2023, December 28). *Biological and chemical weapons*. Our World in Data. <https://ourworldindata.org/biological-and-chemical-weapons>

The Chemical Weapons Convention (CWC) at a glance | Arms Control Association. (n.d.). <https://www.armscontrol.org/factsheets/chemical-weapons-convention-cwc-glance-0>



Imperial War Museums. (n.d.). *A brief history of drones*.

<https://www.iwm.org.uk/history/a-brief-history-of-drones>

Schneider, B. R. (2024, August 6). *Biological weapon | Types, Effects & History*. Encyclopedia Britannica.

<https://www.britannica.com/technology/biological-weapon/Biological-weapons-in-history>

Imperial War Museums. (n.d.-b). *A brief history of drones*.

<https://www.iwm.org.uk/history/a-brief-history-of-drones>

OpenScience - Science, Technology, Development. (n.d.).

<https://openscience.fr/Science-Technology-Development>