Tackling the Treat of Biological and Chemical Weapons

Committee Guide

First Committee of the General Assembly



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Personal Introductions

Honourable everyone, distinguished all,

My name is Mendy Stad, by the time OLMUN comes around I'll be 21 and I study International Relations and International Organizations in Groningen. This year, I'll be one of the chairs of the GA1!

OLMUN will be my 24th MUN. I have chaired at six MUNs before this, helped organize quite a few MUNs and was delegate at many more. My MUN career includes MUNs such as, but not limited to, FirstMUN, OLMUN, LmunA, GrunnMUN and GAGMUN. When I am not either studying, preparing for MUNs or doing MUNs, I like to read, write, and have fun at my student organization, SIB. I am honoured to be this year's chair of the General Assembly's First Committee and I truly look forward to meeting you all!

Yours sincerely, Mendy Stad

Dear organisers, honourable Journalists, distinguished Delegates,

It is my utmost pleasure being your chair for this year's committee for Disarmament and International Security. The first time I attended a MUN was OLMUN 2014. Ever since, I have participated in more than seven MUNs and have gotten to know more than 500 people through MUN. By attending Model United Nation Conferences, I got to know people in Albania, in Ireland, in Morocco, in France, in Poland and all around Germany. When being in MUN you will cry, you will laugh, you will fall in love and you will make unforgettable memories. MUN will shape you. It will challenge you and it will leave you back wanting more.

After finishing high school in summer 2016 I spend the last seven months working voluntarily in a hospital in Oldenburg. From this summer on I will be studying Medicine. Besides MUN I am an active EYPer, saying a member of the European Youth Parliament. As I am a member of the UNICEF Youth Council Germany I spend a part of my spare time with working and developing on political projects.

The reflection of political issues is often underestimated. Especially the current political situation, as we are facing many European elections, displays the relevance and impact political issues have on our daily life. I am very much looking forward to meet all of you and listen to heated discussions, profound debates, interesting arguments!

Kind regards, Marlene Good morning distinguished future delegates, members of the press, honourable participants of the First Committee of the OLMUN 2017,

Besides Mendy Stad and Marlene Mörig, I'm glad to be the third part of your presidency for the OLMUN 2017 conference in the General Assembly's First Committee. My name is Jonas Pauly and I currently live in Bremen, not far from Oldenburg. For two years, I've been studying political science and law with a slight focus on international relations at the University of Bremen.

During the past semesters, I organized a weekly MUN for university students that hopefully prepared me a little for the upcoming OLMUN. During the past two years, I participated in MUNs in Stuttgart, Budapest and Berlin as well as in the OLMUN 2016. Next to my studies, I invest some time in my Christian faith and my church. Furthermore, I love running but also every other kind of sport.

I started doing MUNs during my school time in Karlsruhe, Baden-Württemberg. Probably some of you have heard of the MUNBW in Stuttgart. That is where Jonas Pauly learned not refer to himself in the first person singular, using the third person instead. Hopefully, many of you will be infected with the spirit of MUN, achieving a deeper insight into complex global problems using the (sometimes) just as complex method of the United Nations Organisation. I am motivated to contribute everything to the best of my ability so we can all experience a great conference together, looking at the global threat of chemical and biological weapons.

Looking forward to get to know you and experience an international and political conference in Oldenburg 2017,

Jonas Pauly

1. Committee Introduction

First Committee of the General Assembly – Disarmament and Security Committee *The Establishment of a nuclear-weapon-free zone in the region of the Middle East* (A/C.1/71/L.1) or *General and complete disarmament: Regional disarmament* (A/C.1/71/L.15) were titles of draft resolutions of the General Assembly's First Committee (GA 1st) during its session in 2016. Generally, problems of disarmament and related international security issues, for example non-proliferation and the regulation of armaments are discussed in the GA 1st. Synonyms for the GA 1st are *DISAC*, for **Di**sarmament and **Se**curity **C**ommittee or simply *First Committee*.

The purpose of the committee is to enable the General Assembly (UNGA) to work on several issues simultaneously and faster (Rudolf 2006: para 12). Therefore, issues falling under the responsibility of the UNGA according to the Charter of the United Nations, which affect the topic of disarmament and international security, will be forwarded to the GA 1st and discussed there. Lastly, the Ga 1st works out and decides upon a draft resolution which will be sent back to the UNGA. Due to the legal authority of the respective UN organs, only the UNGA has the power to adopt the resolution. Nonetheless, the substantial work and negotiating takes place within the framework of the GA 1st.

The First Committee as a subordinate body of the UNGA is a sessional committee, which means that the sessions of the council take place during the working period of the parent body. This year's session of the UNGA will begin on Tuesday, 12 September 2017 and last until December 2017 at least. Usually, sessions will continue until all items on the agenda are discussed, which will be briefly before the opening date of the next, 73rd meeting of the UNGA. Fortunately, the discussions and voting behaviour of the Ga 1st are public, thus you have insight into the documents under discussion in the committee as well as the speeches given by several representatives. We strongly recommend you to have a look on the website of the United Nations Office for Disarmament Affairs (UNODA), see the link below.

Although "subsidiary body" might sound a bit small, the GA 1st is a so-called Committee of the whole. This means every member state has the right to take part in its meetings and vote. Since the recognition of the Republic of South Sudan on 14 July 2011, the General Assembly consists of 193 member states (A/INF/70/1; UN 2016b). Not every state will be simulated at the OLMUN 2017, nonetheless we will have every quite a number of states at the table, hence forming quite a large (and great) committee.

Decisions of all main committees are made by a majority of the members present and voting. Member states abstaining or absent are considered as not voting. Each member state has one vote. Although this is the formal procedure, the First Committee often seeks to achieve a two-thirds majority because of the voting customs of the General Assembly. Whenever it comes to budgetary issues, questions of international peace and security or the President of the UNGA declares a qualified majority to be necessary, a quorum of two-thirds of the present and voting states has to be met.

The UNGA created its six subsidiary organs right at the founding of the UN, during its first session in January 1946. Aside from the First Committee there are further bodies dealing for example with the economic and financial matters (GA 2nd) or social, humanitarian and cultural issues (GA 3rd). The latter will be simulated at the OLMUN 2017 too, and will focus on the aspect of sustainable urban development. Further councils are the Special Political and Decolonization Committee (GA 4th), the Administrative and Budgetary Committee as well as the Legal Committee. The idea of several subcommittees working simultaneously was already part of the predecessor of the UN, the League of Nations.

As mentioned above, the GA 1st deals with issues of disarmament and international security. Thus, it seeks solutions to challenges facing the international security regime, which are based on the general principle of cooperation, the conducting of disarmament and the regulation of armaments. The United Nations generally follows a liberal paradigm that seeks to contain threats to the global community by multilateral agreements and transnational communication.

One state – one vote. That means that no country has the power to influence the discussion and the work of the whole committee by itself. Thus, country groups play a role and may help you to extract your country's position. However, the coherence between the member states of a group is by far less intense than it is in national political parties. The shared position of the regional or caucusing group could help you to fill out gaps in your policy statement but not replace proper and specific research on your state.

Important for the work of the UNGA are the regional groups which meet regularly, exchange information and resources. In many cases, member states of a regional group pursue – at least to some extend – shared goals. These groups are the *African States, Asian States, Eastern European States, Latin American and the Caribbean States* as well as *Western European and Other States*. Others include countries such as Australia or Canada. Turkey participated in the meetings of the Western European and Other States' meeting as well as in the Asian Group. You can imagine that country leaders could aim towards achieving completely different goals although their countries are geographically located next to each other. One must add the information that Israel and the United States are currently not meeting with any regional group, but the US consults with Western European states. Thus, the political groupings, especially those following, should be relevant for your research as well as the upcoming debate as well.

The Group of 77 consists mostly of less developed states, that reached independence after World War II. It communicates the program of the so-called "Third World" to the others and can also be described as the "South" when it comes to the north-south-relation. The focus of the G77 lies mainly on economic issues. Although the group already has more than seventy-seven members by far – in fact more than half of the member states of the United Nations belong the G77 – its name never changed.

The Non-Aligned Movement (NAM) grew separately from the G77 even though many states belong to the NAM and the G77 at the same time and both groups share economic goals. The NAM addresses a broader range of topics and often followed an

anti-western biased position leading to confrontations with the United States. Due to the decline of the world blocs the NAM lost some of its importance in international politics. Nonetheless and even nowadays, the member states agree on a vast majority of international issues.

During recent years, the African Union (AU) has gained relevance in international politics. Unlike the groups mentioned above, the African Union is an organization. This means that the AU has its own secretariat and resources such as financial means. In case your country might be part of the AU, it is worth looking at the AU website to get an idea about how your country acts on the supranational level. Especially when it comes to the spending of financial means and the involvement in political measures.

Although the European Union (EU) is not an organization constructed for global politics, there is an approach to achieve a so-called *Common Foreign and Security Policy*. Furthermore, the member states of the EU are quite homogeneous when it comes to issues such as democracy, economic affairs and migration policy. During the past two years, the consensus among the member states of the EU has decreased massively. Therefore, you should better check whether your country is aligned with the official *European* position or not. However, considering this aspect may aid further aspects to your research.

This should give you an overview of the GA 1st, what it is meant for and how it works, as well as what groups are relevant to understand the ongoing discussions in the committee.

2. Explanation of the Topic

2.1 Topic

This year, the General Assembly First will be tackling the threat of biological and chemical weapons. However, first it is essential to know what biological and chemical weapons are.

First, what can be classified as a weapon? According to the Merriam-Webster dictionary, a weapon can be defined as anything used to injure, defeat or destroy, or a means of contending against each other. This could be objects like guns, and knives, but also gunboats and nuclear weapons.

Included in this term of weapons also is biological weapon: a weapon that delivers substances like toxics, but also bacteria and viruses with the goal to kill, injure, inflict diseases or discomforting a community of people. By planting a bacterium, virus or toxin produced by an organism in a certain area, for example in aerosol form, or contamination of food or water, a party attempts to influence the opposing party in some way. This can be by eliminating a part of their fighting force, but also by threatening to use the weapons. Using insects also is considered a biological weapon and has often been done in history.

In general, there are three clear goals identified with biological weapons in an offensive way. Although offensive use of biological weapons is very much frowned upon, as it cannot be controlled accurately, a state could use a biological weapon to kill people, crops or livestock.

Countries known to be involved with biological weapons, usually in the past, are the United States, the United Kingdom, the Soviet Union and Russia, Japan, Iraq, South Africa and Canada.

Also within the definition of weapon are chemical weapons. A chemical weapon is designed to deliver a toxic chemical in for example a bomb or shell. These chemicals can be used to cause death, paralysis, incapacitation, injury or illness. Chemical weapons are defined by the Chemical Weapons Convention (CWC) as any toxic chemicals and their precursors, with the exception of those with a dual purpose allowed by the CWC, and all devices used to specifically deliver those toxins. This two-part definition was designed to prevent the loophole of storing toxins and delivery systems separately. Chemical weapons are used to incapacitate and kill a large amount of people with only one weapon, which often was used during World War I.

There are four categories of chemical weapons. These are chocking, blister, blood and nerve agents. Choking agents include toxins such as chlorine and phosgene, blistering agents include mustard gas, used in World War 1, blood agents such as hydrogen cyanide and nerve agents like sarin.

There are still countries with stockpiles of chemical weapons. The majority of these have signed the Chemical Weapons Convention, but there are some exceptions. In the past, before destruction of the chemical weapons, India and Syria had chemical weapons. Japan, Libya, Russia are actively destroying their final stockpiles. Iraq, North Korea and the United States are the only countries with a suspected or confirmed stockpile that is not due for destruction.

Between these two, the biological and chemical weapons, there is an overlap. Technically, toxins produced by organisms also fall in the category of chemical weapons, as well as biological weapons.

The use of chemical weapons technically goes as far back as the medieval times, when use of boiling tar and poisoned arrows were common. However, the modern chemical weapons inception was during World War One, when chlorine, phosgene gas and mustard gas was often used in the battlefield. During World War Two countries were more hesitant, but did develop more effective chemical weapons and this trend continued on into the Cold War. Other uses of chemical weapons in battle was by Iraq in the 1980s.

Biological weapons go back even further, as in antiquity they used the first biological weapons. This by for example contaminating water sources with dead animals, or in one case, shooting vessels full of venomous snakes to the enemy. The British attempted to use the disease smallpox to kill Native Americans, and in the American Civil War Confederates attempted to spread smallpox to the enemy. Sophisticated biological weapons were used by the German army in World War One, using anthrax, cholera and a wheat fungus. During World War Two, only Japan resorted to using chemical weapons using anthrax, the plague and syphilis. However, the United States

and the Soviet Union/Russia are known to have done much research on biological weapons.

2.2 Previous attempts to solve the issue

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare

This treaty, often referred to as the Geneva Protocol, is both about chemical as well as biological weapons. Originating from 1925 and entering into force in 1928, but followed The Hague Conventions as early as 1899 and 1907. In this Hague Conventions international law on war and war crimes were discussed, such as peaceful settlements, maritime war, projectiles from balloons and the use of dangerous chemicals. Obviously, this treaty did not work that well, considering World War One, but it did provide the inspiration and base for the Geneva Protocol.

The Geneva Protocol prohibits the use of asphyxiating, poisonous or other gases and liquids, materials or devices and bacteriological methods of warfare. Technically, it only talks about the use of these weapons and not the storage, transfer or production. Nonetheless, in customary international law (unwritten rules between countries), it is understood as a general ban on biological and chemical weapons.

The Geneva Protocol, however, did not hold up to the pressure either. Spain and France used chemical weapons in the Rif War of 1928, Japan against Taiwan in 1930 and against China between 1938 and 1941 and Italy used mustard gas in 1935. During World War Two and the Cold War there were many weapons stockpiled and ready to go, but none used any on purpose because of the balance of terror they had: the threat of using chemical weapons was enough to stop others from using theirs.

After World War Two there are also several instances: during the Iran-Iraq war of the 1980s and the 1991 uprising in Iraq, Iraq used chemical weapons. The government of Syria and/or Syrian opposition forces have also been using sarin gas and chlorine gas in 2013 and 2014.

There are several reasons why this protocol didn't work. Firstly, there were no measures taken against not-ratifying parties, the fact that it was a no-first use agreement, allowing retaliation, the abuse of sovereignty that allowed the use within a state's own border and the excessive research and development done on the weapons, and subsequent stockpiling. Another problem was colonization: The United Kingdom and France took over a lot of countries that signed the protocol and forced them to withdraw their signatory as they were against such a treaty.

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction

This Convention is usually referred to as the Chemical Weapons Convention (CWC). It outlaws the production, stockpiling, and of course use of chemical weapons. It also bans the same for the precursors of the toxins used to make chemical weapons. For

example, it would be illegal to produce two chemicals who together made a very toxic gas. It also rallies for the destruction of the current chemical weapons present. This mission has been relatively successful, as until now approximately 90% of the declared chemical weapons stockpile has been destroyed. The most recent destruction was of the stockpile in Syria. The United States, Russian Federation and Japan have committed to destroying all chemical weapons by the 2020s. There also are some remnants of chemical weapons that were in the first logistical phases of being destroyed, until the Islamic State took over the area.

Quite a young convention, it only went into force in 1997. At this moment in time, 192 of the United Nations members have signed and ratified this treaty, with Angola being the most recent member to join. Israel meanwhile has signed but not ratified this treaty, while Egypt, North Korea and South Sudan have done neither.

The convention falls underneath the banner of the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague, the Netherlands.

2.3 Role of the UN

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction

This treaty usually is referred to as the Biological Weapons Convention (BWC). Submitted in 1972 and entered into force in 1975. Unlike the Geneva Convention, the BWC does not have a general ban on bacteriological/biological and toxin weapons, but rather on certain purposes of these. The only purposes that are allowed in this convention are BWC used for preventative, protective or peaceful purposes. Any other purpose is illegal. The illegality of biological weapons under this treaty does not only include their use; it also includes their development, production, stockpiling or other ways of getting the weapons.

There are ten articles in this convention which all have their own purpose and message. For example, Article one bans biological weapons, while Article VI says to request the United Nations Security Council to be informed of any breeches for investigation.

Of all the United Nations members, 178 have signed and ratified the BWC. There are still six nations who have signed but ratified it, and twelve countries who have neither signed nor ratified it.

A core part of the BWC is the periodic review, where the organisation looks at recent threats of biological weapons and additions or changes that need to be made to the convention. These Review Conferences generally happen every five years. The last review conference was in 2016.

This convention falls underneath the United Nations Office at Geneva (UNOG). All actions that are done by this convention are reported back to the United Nations.

Additionally, next to the BCW, the United Nations often has the final say in situations involving both chemical and biological weapons. An example again can be found in

the situation in Syria, where the United Nations Security Council worked together with the OCPW to get rid of the weapons. In actuality, the UNSC was setting the deadlines that needed to be followed.

3. Inherent core problems and previous solutions

For many centuries, the International Community has been working on addressing the threat of biological and chemical weapons. And indeed, until today there was recorded a decline in the number of states pursuing the development of CBW. However, the nature of the problem has changed over the years what makes responding to the challenges even more difficult.

The core challenges can be broken down to three main areas:

- \circ $\;$ the scientific and technological progress
- o new threats of misuse, particularly including the life-sciences
- globalisation, including the appearance of new players and a redefinition of the inter-institutional relationships.

Not explicitly mentioned but always to be kept in mind is the changing geo-strategic environment as it not only seriously influences the points mentioned above but also challenges and changes our perception about the weapons and their utility.

3.1 Scientific and technological progress

Naturally, there is a progress in research. That means that CBW and everything being connected to this issue constantly need to be redefined and adapted. Especially, when it comes to the life sciences many people fear the threat of dualism, as research can not only help but also implies the threat of misuse. To prevent harmful incidents there is a need for scientists to become more aware of the dual use potential of their work. In fact, education and awareness-raising activities with those who work in the life sciences are effective in this respect but are a much-neglected area that still needs to be addressed. Existing structures, such as education about the issue and awareness raising methods, should be developed and promoted. It is highly important to ensure that all actors involved in the life science work become more familiar with dual output of scientific research and, going along with that, know about the legal frame or their research and subsequent relevant risk assessment procedures.

Besides, it is particularly essential to strengthen the synergy between efforts of BWC State Parties and organisations such as World Health Organisation (WHO) and Interpol. As the world grows continually smaller also the vast amount of information due to rapid developments in science and technology overwhelming. Consequently, this duality of the life sciences results in a dilemma: we need to respond to the rapidity but also to respond to the complexity of advances. Going along with that is the growing tendency that the boundaries between the sciences become more and more blurred

and that scientific branches get more and more mingled. That means that it is getting more and more difficult to tell which advancements are most threatening to CWC and CBW.

Within the last years, advances in understanding infectious disease biology and epidemiology largely have been influenced by many different approaches. So, the relevance of a number of studies that have been carried out in the last five years and that have highlighted the potential duality is not to be underestimated. Two examples for the potential problems in the context of bio-terrorism:

- 2003: within three weeks an infectious bacteriophage was created
- 2004: the highly virulent 1918-19 Influenza A pandemic strain was partially reconstructed in order to find out what made it so pathogenic.

Incidents like these can, if not carried out properly, impose an immediate and highly dangerous threat to humanity.

Another area prone to a dual use of application is synthetic biology. Basically, that means the construction and replicating of 'organisms'. Parts of the DNA sequence are assembled in a new way in order to perform specific tasks. One assumption is that when technology is developed to its end, the compilation of biological tool kits or replicating synthetic organisms will be possible.

Probably one of the most complex tasks is the redefinition of the link between health and security. The United Nations will have to tackle the question "Can health be a security issue? Is it possible to be healthy without security? Does security without health even have a value?" According to the World Health Organisation (WHO) health is a "state of complete physical, mental and social well-being as well as not merely the absence of disease". Today, the common understanding takes convergence between security and human rights.

There are many preventive measures already in place. Nonetheless, there still is not a global, fully developed outbreak alert Epidemic and Pandemic Alert and Response system gathering epidemic intelligence¹. Pertinent information needs to be disseminated, created and maintained. That also means that the international community must be sensitized and prepared even more for an intentional outbreak.

A further future challenge is that the security sector including military and law enforcement will have to hand-out sensible, important information, including knowledge about the health sector. In order to give this international cooperation a common framework for their work, the idea of a Code of Conduct for scientists came up. In 2002 the Working Group of the United nations and Terrorism explained that the Code could "aim to prevent the involvement of defence scientists or technical experts in terrorist activities and restrict public access to Weapons of Mass Destruction (WMD)

¹ World Health Organization - Alert & Response Operations: <u>http://www.who.int/csr/alertresponse/en/</u>

knowledge". Still, the content of code still needs to be worked out and again, the exchange and awareness raising about code would be a necessity.

3.2 Globalisation

Very important but not addressed yet by the International Community is that there are new non-state actors with relationships and interconnections that still need to be understood. In the resolution 1540 by the United Nations Security Council (UNSCR) a *non-state actor* is described as "an individual or entity, not acting under the lawful authority of any State in conducting activities, which come within the scope of this resolution".²

Currently, there still is a dominating separation in state and non-state actors, even though there are many more parties involved e.g. facilitators, enablers of the development of weapons, traffickers, technicians or even scientists. Particularly those actors working in the background are little studied, despite at the very core of the issue. They need to be integrated in solution-finding and misuse-, trade-, and manufacturingpreventing process in order to develop successful concepts. While state use is still perceived in the context of battlefield usage there is a growing trend of "communal conflicts", like in the Balkans, providing a third conflict model next to the misuse by terrorists.

Another concern of the International Community in this context is the exploitation of CBW through terrorists as they could easily fall back on available industrial chemicals instead of developing their own. On a more generalized scale we have to broaden our understanding about what pushes them, about their motivation and about their desired advantages through the use of these weapons.

3.3 Review Conferences - Taking what is already there and improving it

Last but not least we have to strive towards a new way of thinking and solution-finding. Instead of asking for either a multilateral or a unilateral response is needed, if it has to be governance or non-governance, if it is treaty versus non-treaty, we have to look for how to combine and interconnect them. Instead of asking "A or B" we have to go for asking "how does A and B fit together" to get the most coherent and most efficient result possible.

One approach already made towards this idea is the concept of the *Review Conferences*³ by the OPCW. They were established in this domain to provide an

² Frequently asked questions on Resolution 1540 (2004) - How does Resolution 1540 (2004) relate to counter-terrorism efforts?: <u>http://www.un.org/en/sc/1540/faq/facts.shtml</u>

 ³ Dates
 The FIrst: 28 April – 9 May 2003
 The second: 7 April – 18 April 2008
 The third: 8 April - 19 April, 2013

examination of content, structure and topicality. Additionally, they take the scientific and technological development into consideration and try to initiate an inter-sessional process striving to develop something tangible.

Though successful it is important for State Parties to take into consideration other procedures allowing more regular reviews. Along with the CWC review conferences⁴, of which two took place in 2003 and 2008, there were talks about an optimisation of the verification systems. For example, by calling for a verification information system assisting the care of OPCW activities.

After all, there are four issues that are and will be relevant:

- 1. the continued implementation of the destruction deadlines
- 2. new possessor states requiring destruction deadlines other than those stated in the treaty
- 3. the future challenges of science and technology, e.g. chemistry's interface with biology and changes in industry organisation
- 4. the non-proliferation dimension.

⁴ Results of the third review conference: <u>https://www.opcw.org/rc3/</u>

4. Bibliography and further reading

4.1 Bibliography

About the General Assembly First <u>http://www.un.org/en/ga/first/</u> <u>https://www.un.org/disarmament/firstcommittee-71/</u>

Members in the UN http://www.un.org/en/sections/member-states/growth-united-nations-membership-1945-present/index.html#2000-Present

Definition Weapon https://www.merriam-webster.com/dictionary/weapon

Factsheets – Organisation for the Prohibition of chemical weapons https://www.opcw.org/documents-reports/fact-sheets/

About biological weapons https://fas.org/programs/bio/bwintro.html

About chemical weapons https://www.opcw.org/about-chemical-weapons/what-is-a-chemical-weapon/

History of the use of chemical weapons https://www.opcw.org/about-chemical-weapons/history-of-cw-use/

History of the use of biological weapons <u>http://www.emedicinehealth.com/biological_warfare/article_em.htm#what_is_the_hist</u> <u>ory_of_biological_warfare</u>

Geneva Protocol https://www.state.gov/t/isn/4784.htm

4.2 Further Reading

Status of biological and chemical weapons per country https://www.armscontrol.org/factsheets/cbwprolif

1540 Committee, Security Committee established pursuant to resolution 1540 (2004) – RESOLUTION 1540 FACT SHEET <u>http://www.un.org/en/sc/1540/1540-fact-sheet.shtml</u> Wilton Park Report – Wilton Park Conference 2007 (Chemical and Biological Weapons: Facing Future Challenges) https://www.wiltonpark.org.uk/wp-content/uploads/wps06-7-report.pdf

The Biological Weapons Convention – UNOG The United Nations Office at Geneva http://www.unog.ch/80256EE600585943/(httpPages)/04FBBDD6315AC720C125718 0004B1B2F?OpenDocument

Der gefährlichste Mann der Welt, Abdul Qadeer Khan – 3sat http://www.3sat.de/page/?source=/ard/thementage/165608/index.html

Responding to the Threat of Biological Weapons – A Comment, Oliver Thränert (Friedrich Ebert Stiftung) http://journals.sagepub.com/doi/abs/10.1177/0967010695026004005

Bill Gates says terrorists could use viruses to kill millions – Market Watch (The Wall Street Journal)

http://www.marketwatch.com/story/bill-gates-says-terrorists-could-use-viruses-to-killmillions-get-the-army-ready-2017-02-20

We must wake up to the threat of new chemical weapons - New Scientist <u>https://www.newscientist.com/article/mg21829125-900-we-must-wake-up-to-the-threats-of-new-chemical-weapons/</u>

CEPI (Coalition for Epidemic Preparedness Innovations) http://cepi.net/

Nuclear Threat Initiative (NGO) – Chemical Weapons Tutorial <u>http://tutorials.nti.org/table-of-contents/</u> <u>http://www.nti.org/newsroom/news/new-nti-tutorial-on-chemical-weapons/</u>

Proliferation Security Initiative (PSI) <u>http://www.psi-online.info/</u>

CW programs require precursor chemicals, specialized laboratory equipment and facilities, maintenance equipment and storage facilities. Much of the equipment and expertise is similar to that used in research or industrial programs.	ACQUIRE EQUIPMENT) 1
Small-batch production of CW agents at a pilot facility enables the state to perfect production techniques and evaluate the effects of new agents.	SMALL-BATCH PRODUCTION	2
Next, the state scales up production of CW agents. The process is similar to scaling up an operation to synthesize legitimate chemicals, and requires standard chemical equipment such as reactor vessels, heat exchangers, pumps, pipes, valves, and joints.	SCALE-UP PRODUCTION) 3
Adding stabilizers to chemical agents is essential to the weaponization process, and to stockpiling munitions. Stabilizers prevent CW agents from degrading when exposed to hig temperatures or stored for long periods of time.	STABILIZE THE AGENT	4
Once a delivery system is developed and the agent is mated to that delivery system, testing the weapon as a unit would be conducted under different atmospheric condition at dedicated testing grounds.	DEVELOP A DELIVERY SYSTEM) 5

4.3 Videos

Preparing to deal with the threat from chemical, biological and nuclear weapons – NATO

https://www.youtube.com/watch?v=MxEQ3XueSG8

Weapons of Mass Destruction – United Nations https://www.youtube.com/watch?v=OX6zxjxIA_4

Weapons of Mass Destruction: Threats and Responses – United Nations https://www.youtube.com/watch?v=nZfUtIdYDeM

UN: Sarin used in Syria chemical attack – CNN [explicit content] <u>https://www.youtube.com/watch?v=3VzzVvQN1Qc</u>

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