

BIGMUN 2025
GA1: Disarmament and International Security (DISEC)

Research Report

Topic 1: Implementation of measures against the proliferation of biological weapons



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Introduction-

Biological weapons pose a significant threat to civilian and military populations. With many, small dose can be lethal to a large number of people. These small doses can be easily concealed, transported and released into crowds, without detection. Toxins which are capable of secondary transmission can lead to large scale epidemics. As many of these weapons mimic natural events, the public health response, as well as apprehending the person/group responsible can be particularly difficult to coordinate¹. The military potential of these weapons, much less expensive to produce than nuclear weapons, may tempt member states to fund confidential research and development facilities. Comparatively, the cost of civilian casualties per square kilometre is \$600 for nuclear weapons, and just \$1 for biological weapons.² These weapons can cause extreme damage when in the wrong hands, and as such this report will delve further into this issue, and measures to prevent the proliferation of biological weapons.

Definition of Key Terms-

Biological Weapons: Microorganisms such as bacteria and fungus or toxic substances which are produced by living organisms. They are released deliberately in order to cause harm or death to humans. Examples include anthrax and botulinum toxin.¹

Epidemic- widespread occurrence of an infectious disease, typically contained to a certain geographical area and time. Usually describes when this disease is out of control or has infected more people than expected

¹ World Health Organisation (WHO), “Biological Weapons”, WHO https://www.who.int/health-topics/biological-weapons#tab=tab_1

² S Sivagnanam, “The Economic of Bioweapons”, BMJ <https://www.bmj.com/rapid-response/2011/10/29/economics-bioweapons>

Background Information-

As a result of their biological bases, biological weapons have existed for hundreds of years. The first recorded case of its use was in 1347, when Mongol forces hurled plague infected bodies into Caffa, a Black Sea port.³ It is speculated by historians that ships from this port returning to Italy that started the devastating Black Death in Europe, which caused the deaths of 25 million people.³ Though these weapons have existed for centuries, the proliferation of biological weapons began in WW1. German forces began clandestine programs to infect allied horses with anthrax and glanders. This first glimpse of the horror of bio-warfare led to the signing of the **Geneva Protocol (1925)** which prevented the use of biological and chemical weapons of war. This did not totally prevent the use of these such weapons in warfare.

During WW2 Japan, one of the signatories of the **Geneva Protocol (1925)** undertook secret testing and development of biological weapons. They broke the terms of the protocol when these weapons were used against allied forces in China between 1937 and 1945. They also engaged in human testing of infectious agents such as anthrax, typhus, cholera, and gangrene which resulting in the death of over 3000 subjects.³ Although, there are no other records of the use of such weapons during the war, however countries such as the United Kingdom and Soviet Union had research development programs to investigate biological weapons, and how to counteract them.

The Soviet Union in particular, during the course of the cold war had a massive clandestine biological weapon research and development facility, despite signing the **Biological Weapons Convention (1972)**.³ This was partially a result of the lack of verification methods to prevent member states from ignoring this convention.

The proliferation of biological weapons is not just related to their use in warfare, but also as a means of terrorism. A small amount of capital, and few biologists who could be secretly housed in a couple building is enough to produce a weapon capable of mass destruction.³ It is therefore reasonable to consider that such a development facility is well within the financial means of a terrorist organisation.

There have been few incidents of biological terrorism, though that does not detract from the severity of the issue. An example includes the anthrax attacks in the US (2001), tainted letters which infected 17 and killed 5.⁴

Currently, the United Nations is not aware of any countries with ongoing biological weapons programs. Although the nature of such facilities opens the possibility of such facilities existing, whilst remaining undisclosed.

³ Barry R Schneider, "Biological Weapons in History", Britannica, November 30 2024
<https://www.britannica.com/technology/biological-weapon/Biological-weapons-in-history>

⁴ Italy, "Bioterrorism", Convention on the Prohibition of the Development, Production and Stockpiling of Biological Weapons, 20 November- 8 December 2006
<https://documents.un.org/doc/undoc/gen/g06/653/74/pdf/g0665374.pdf>

Major Countries and Organisations Involved-

USA- the USA has a thorough counter terrorism program, especially after the September 2001 attack. USA citizens were also victims of the anthrax attacks, also 2001, one of the few examples of biological terrorism.⁴ Thus, the US would have a vested interest in the non-proliferation of biological weapons, particularly in the context of terrorism.

Russia- as mentioned previously, Russia historically has been involved in the research, production and use of biological weapons during multiple periods.

G8- original members include Russia, UK, USA, Canada, France, Germany, Italy and Japan.⁵ They have done important work in the non-proliferation of all weapons of mass destruction (WMD's) which includes biological weapons.

Relevant UN Resolutions-

Resolution 1540 (S/RES/1540)-

“Adopted by the Security Council at its 4956th meeting, on 28 April 2004”⁶

“1. Decides that all States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery.

2. Decides also that all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them”⁶

Prevents states from assisting any non-state groups (particularly groups of a terroristic nature) with the development, acquisition, manufacturing and transport of biological weapons. Also requires states to adopt appropriate legislation to prevent terrorist groups from acquiring these biological weapons.

⁵ Karen Mignst, “Group of Eight”, Britannica, November 12, 2024
<https://www.britannica.com/topic/Group-of-Eight>

⁶ UN, Security Council “Resolution 1540”, UN, April 28, 2004,
<https://documents.un.org/doc/undoc/gen/n04/328/43/pdf/n0432843.pdf>

A/RES/60/288-

“11. To invite the United Nations system to develop, together with Member States, a single comprehensive database on biological incidents, ensuring that it is complementary to the bio crimes database contemplated by the International Criminal Police Organization. We also encourage the Secretary-General to update the roster of experts and laboratories, as well as the technical guidelines and procedures, available to him for the timely and efficient investigation of alleged use. In addition, we note the importance of the proposal of the Secretary-General to bring together, within the framework of the United Nations, the major biotechnology stakeholders, including industry, the scientific community, civil society and Governments, into a common programme aimed at ensuring that biotechnology advances are not used for terrorist or other criminal purposes but for the public good, with due respect for the basic international norms on intellectual property rights;”⁷

This resolution recognises the threat of bioterrorism and sets out its Global counter terrorism program, which includes measures to prevent biological terrorism.⁴ Importantly, it suggests measures to monitor biological incidents, and labs or other important figures in biotechnology, to try and prevent this dangerous technology from falling into the wrong hands.

Security Council Resolution 1373 (S/RES/1373)

“Adopted by the Security Council at its 4385th meeting on 28 September 2001”⁸

1. *“1. Decides that all States shall:*

(a) Prevent and suppress the financing of terrorist acts”

4. *“ Notes with concern the close connection between international terrorism and transnational organized crime, illicit drugs, money-laundering, illegal arms trafficking, and illegal movement of nuclear, chemical, biological and other potentially deadly materials, and in this regard emphasizes the need to enhance coordination of efforts on national, subregional, regional and international levels in order to strengthen a global response to this serious challenge and threat to international security”⁸*

The resolution urges states to put in place counterterrorism, whilst also raising the concern of the connection between international terrorism and the illegal movements of weapons, such as biological ones.

⁷ UN, General Assembly, “The United Nations Global Counter-Terrorism Strategy”, 20 September 2006
<https://documents.un.org/doc/undoc/gen/n05/504/88/pdf/n0550488.pdf>

⁸ UN, Security Council “Resolution 1373”, UN, September 28, 2001,
https://www.unodc.org/pdf/crime/terrorism/res_1373_english.pdf

Previous Attempts to Solve the Issue-

Geneva Protocol 1925-

“That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration.”⁹

Among other things, the Geneva Protocol prohibits the signatories from the use of biological weapons (referred to as bacteriological) as a method of warfare. This only addresses the use of biological weapons in the context of war, not the production/research of such weapons.

Biological Weapons Convention (BWC)

Article I-

“Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

- (1) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes*
- (2) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict”¹⁰*

The treaty was adopted in 1972, and put into force in 1975. It has 109 signatories and 187 parties. ¹¹The convention prohibits signatory states from developing, acquiring, stockpiling, transferring or using biological weapons.

⁹ UNODA, “Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare”, 17 June 1925
https://front.un-arm.org/wp-content/uploads/assets/WMD/Bio/pdf/Status_Protocol.pdf

¹⁰ “Biological Weapons Convention”, 10 April 1972
<https://front.un-arm.org/wp-content/uploads/2020/12/BWC-text-English-1.pdf>

¹¹ UN, Office of Disarmament Affairs “Treaties Database”
<https://treaties.unoda.org/t/bwc/participants>

G8 Global Partnership Against the Spread of Weapons of Mass Destruction

The partnership was formed by the G8 to address issues of “non-proliferation disarmament, counterterrorism, and nuclear safety issues,”¹² after the terrorist attacks September 11, 2001. In 2012 they expanded to create working groups which targeted different WDM’s, including biological weapons. The G8 has expanded beyond its original 8 members, and now has 29 member states.¹²

UN Resolutions

[S/RES/1540](#), [A/RES/60/288](#), [S/RES/1373](#)

Possible Solutions-

The UN or other international organizations could implement-

Further control of substances which can be used to produce biological weapons, in order to limit non-government groups from being able to manufacture them and thus reducing their proliferation.

Improved protocols in response to a biological attack in order to protect public health and safety, following guidelines from the WHO.

A neutral body to verify compliance in the signatories of the BCW (1972), to prevent the funding of undisclosed biological weapons research and development facilities.

¹² Arms Control Association, “The Global Partnership Against the Spread of Weapons of Mass Destruction” <https://www.armscontrol.org/specialprojects/nnpm/G7>

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