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Executive Summary

The year 2025 marks the centenary of the 1925 Geneva Protocol, the first multilateral treaty to specifically prohibit the use of chemical and biological weapons. At the time of its adoption, the Protocol was a landmark step in establishing an international norm against particularly inhumane methods of warfare. However, its scope was narrow, banning only use "in war" and allowing for reservations that preserved the right of retaliation in kind. These shortcomings led to the subsequent adoption of the Biological Weapons Convention in 1972 and the Chemical Weapons Convention in 1993, both of which closed major loopholes by prohibiting development, production, stockpiling, and transfer, thereby creating a far more comprehensive regime.

While the rise of these later treaties and the emergence of customary international law have reduced the Protocol's practical role, it continues to carry enduring relevance. Legally, it remains the only treaty instrument prohibiting both chemical and biological weapons, ensuring coverage for a handful of states—notably Israel, North Korea, Egypt, and Syria—that are not parties to one or both of the later conventions. However, the persistence of reservations that preserve the possibility of retaliatory use, especially those of Israel and North Korea, undermines the prohibition and must be addressed. It also uniquely prohibits the use of herbicides in warfare, a category not addressed by the CWC. The Protocol further underpins important institutional mechanisms, such as the United Nations Secretary-General's mechanism for investigating alleged use of chemical or biological weapons. Symbolically, it represents a century-long expression of international abhorrence of chemical and biological warfare and continues to shape international law, including its influence on the Rome Statute of the International Criminal Court. Unlike the BWC and the CWC, the Protocol contains no withdrawal clause, reinforcing the permanence of its prohibitions.

In conclusion, although largely supplanted by the BWC and CWC, the Geneva Protocol should not be regarded as obsolete. It endures as one of the historical foundations of the prohibition of chemical and biological weapons, a residual safeguard within the broader disarmament framework, and a powerful symbol of the global taboo against such weapons. Its centenary offers an opportunity to reaffirm its importance, strengthen universal adherence, and press for the withdrawal of remaining reservations, thereby consolidating the absolute and unconditional rejection of chemical and biological warfare.

1. Introduction

The year 2025 marks the centenary of the adoption of the Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, a landmark instrument that constituted the first explicit prohibition of the use of chemical and biological weapons. At the time of its adoption, the Protocol represented an important normative step in limiting resort to particularly inhumane methods of warfare. Yet, its deficiencies—most notably its failure to address the possession, development, and transfer of such weapons—soon became apparent. These limitations prompted the negotiation of subsequent treaties designed to regulate chemical and biological weapons in a more comprehensive manner, most prominently the Biological Weapons Convention (BWC) of 1972 and the Chemical Weapons Convention (CWC) of 1993.

Over the past century, the international community has witnessed a gradual strengthening of prohibitions against chemical and biological weapons, culminating in near-universal adherence to the BWC and the CWC. This progression invites a critical question: does the Geneva Protocol still retain independent relevance a century after its adoption, or has it been rendered obsolete, relegated to the status of a historical precursor, by the more comprehensive treaty regimes that followed?

This paper seeks to address this question by situating the Geneva Protocol within the broader trajectory of international efforts to prohibit chemical and biological weapons. It will first outline the historical context in which the Protocol was negotiated, including the use of such weapons during the First World War and the early efforts to restrict them. It will then examine the content of the Protocol itself, evaluating both its strengths and its limitations, as well as its influence on state practice. The discussion will next turn to the BWC and CWC, exploring the extent to which these instruments built upon the Geneva Protocol, incorporated its prohibitions, and extended the scope of legal regulation. Finally, the paper will consider whether the Protocol continues to serve a meaningful role in the contemporary legal framework, including the significance of universal adherence and the importance of addressing reservations that persist.

On this basis, the paper argues that the Geneva Protocol remains relevant even a century after its adoption, not only as the foundation of the modern prohibition of chemical and biological weapons but also as a complementary instrument that continues to reinforce the broader disarmament and non-proliferation regime.

2. Biological and Chemical Weapons and their Regulation before 1925

Biological weapons can broadly be defined as weapons consisting of microbial and other biological agents and toxinsand the means for their dissemination.[1] This comprises any type of bacterial, microbial and viral agent. Possible examples of such agents include the causative agents of smallpox, plague and anthrax. They not only include agents that affect human life but also those that affect animal or plant life.

The use of biological agents can be traced throughout history, ranging from the poisoning of water or food supplies with toxic plants or fungi to the hurling of disease-ridden human and animal corpses over city walls during sieges.[2] A well-known example being the distribution of smallpox-

[1] Daniel Joyner, *International law and the Proliferation of Weapons of Mass Destruction* (Oxford University Press 2009) 79-80; Dominika Švarc, Biological Weapons and Warfare (Max Planck Encyclopedia of Public International Law 2015) § 1; Una Jakob, 'The Biological Weapons Convention', in Thilo Marauhn and Eric Myjer (eds.), *Research Handbook on International Arms Control Law* (Edward Elgar Publishing, 2022) 260.

[2] Joyner (n1) 78; Edward. Spiers, Agents of War: A History of Chemical and Biological Weapons, Second Expanded Edition (Reaktion Books, 2021) 28.

infected blankets to native Americans in the 18th century.[3] However, these instances were generally small scale and their effectiveness was debatable. The threat of intentional use of biological agents was negligible until major discoveries in biology in the 19th and 20th century increased the understanding of how diseases spread allowing for the cultivation and potential weaponization of bacteria and viruses. This set the stage for states developing specific biological weapons programmes.[4]

Chemical weapons on the other hand are not living organisms but based on chemical agents. While many weapons used today rely on a chemical reaction for their explosive effect, chemical weapons specifically rely on the toxic properties of the chemicals and use these for their effect.[5] The possible chemical agents that can be used ranges from chemicals commonly used for industrial purposes such as chlorine or phosgene, to chemicals specifically developed for hostile use, such as sarin or VX.

The use of chemicals to create toxic gases as a method of warfare also has a long history. During the Peloponnesian wars, Spartans used a mixture of sulphur and pitch during their sieges of Athenian cities.[6] There are also reports that chemicals were used to create toxic smoke during sieges in the Middle Ages.[7] However, the scope in which these weapons could be employed was relatively limited and not well-suited for large-scale battlefields.[8]

It was not until the 19th and early 20th century that advancing knowledge of chemistry ande the development of technology to mass-manufacture chemicals, made it viable to develop chemical warfare agents and their delivery systems.[9] At the time it was common to conflate the two types of weapons as there was no core scientific distinction between the two then.[10] Although the technology started to advance throughout the 19th century, chemical and biological weapons were not developed at the time.[11] Even without incidents of use, the possibility of using these weapons led to the 1899 Hague Declaration IV specifically banning the use of 'projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases'.[12]

Even though this prohibition existed, it did not stop the parties to the First World War from employing asphyxiating or deleterious gases. As the Hague Declaration only prohibited projectiles which had the sole object of disseminating such gases, the prohibition was initially circumvented by the Germans placing cylinders disseminating gases, rather than using projectiles.[13] Later on in the conflict, projectiles became more common, however these gas shells often carried an explosive

[3] Joyner (n1) 78; Spiers (n2) 29.

[4] Jakob (n1) 259.

[5] Edward Spiers, *A History of Chemical and Biological weapons* (Reaktion Books 2010) 11; Kim Coleman, *A History of Chemical Warfare* (Palgrave Macmillan 2005) 2.

[6] Spiers (n 5) 28; Robert Mathews, 'Chemical and biological weapons' in: Rain Liivoja & Tim McCormack (eds.), *Routledge Handbook of the Law of Armed Conflict* (Routledge 2016) 212; Coleman (n5) 6.

[7] Coleman (n5) 6, 7.

[8] Ibid., 5.

[9] Ibid., 7.

[10] Michelle Bentley, *The Biological Weapons Taboo* (Oxford University Press 2023) 67.

[11] Richard M. Price, *The Chemical Weapons Taboo* (Cornell University Press 2007) 15-16, 31, 34; Catherine Jefferson, 'Origins of the norm against chemical weapons' (2014) 90(3) *International Affairs* 647, 651; J Catherine Joyce, 'Dulce et Decorum: The Unique Perception of Chemical Warfare and the Enforcement of the Geneva Protocol in the 21st Century' (2015) 28 *Pacific McGeorge Global Business & Development Journal* 331, 335-336.

[12] Declaration (IV), to Prohibit, for the Term of Five Years, the Launching of Projectiles and Explosives from Balloons, and Other Methods of Similar Nature. The Hague, 29 July 1899.; Jefferson (n11) 651-652.

[13] Kevin J. Fitzgerald, 'The Chemical Weapons Convention: Inadequate Protection from Chemical Warfare' (1997) 20 *Suffolk Transnational Law Review* 425, 429-430; Thilo Marauhn, 'The Prohibition to Use Chemical Weapons' in Terry D. Gill et al. (eds.) *Yearbook of International Humanitarian Law* (T.M.C. Asser Press 2016), 28-29; Joyce (n11) 336-337; Masahiko Asada, 'A Path to a Comprehensive Prohibition of the Use of Chemical Weapons under International Law: From the Hague to Damascus' (2016) 21 *Journal of Conflict & Security Law* 153, 155-156, although it could be argued that the decision to use cylinders were more likely due to shortages of the Germans rather than any legal argumentation (Price (n11) 47-48).

payload and as such the diffusion of gases was argued not to be the 'sole object' of the projectile and therefore were beyond the scope of the prohibition in the Hague Declaration.[14]

Photographs and personal testimonies documenting the effects of chemical warfare spread widely, exposing the horrifying realities of gas warfare. As a result, widespread opposition to chemical weapons emerged, and increasing pressure was exerted to negotiate their prohibition.[15] A more comprehensive prohibition was first incorporated in the Treaty of Versailles, however this only prohibited Germany from having and employing chemical weapons.[16]

The first clear attempt for a multilateral general prohibition on the use of asphyxiating, poisonous or other gases was at the 1922 Washington Conference, where the French, British, American, Italian and Japanese sought to regulate certain aspects of warfare. At this conference the text of the 1922 Treaty relating to the Use of Submarines and noxious Gases in Warfare was adopted. This treaty originally only sought to address submarines, but the US delegation introduced a provision seeking to prohibit the use of all asphyxiating, poisonous or other gases.[17] This provision was adopted without any further alteration and ultimately incorporated in the 1922 Treaty as Article 5. The 1922 Treaty never entered into force, not due to the participating states being opposed to a prohibition on asphyxiating and poisonous gases but rather due to some concerns France had with the provisions relating to submarines.[18]

3. The 1925 Geneva Protocol

With several states already in favour of a prohibition against asphyxiating and poisonous gases, the issue remained prominent in the discussions of the League of Nations. In 1925 a conference was organised in Geneva to discuss and attempt to regulate the international trade in armaments, chief amongst them asphyxiating and poisonous gases. It quickly became clear that a prohibition of the export of materials that could be used in the development of chemical weapons would not be possible. The discussions moved away from trade in chemicals and instead towards prohibiting the use of chemical weapons.[19] Although there was some initial hesitation as to whether the Geneva Conference on trade in armaments was the appropriate venue for a prohibition on the use of chemical weapons, states ultimately opted to pursue this idea.[20]

The initial draft of the 1925 Geneva Protocol solely addressed chemical weapons. However, the Polish representative proposed that all decisions on chemical warfare should also apply to bacteriological warfare and these should therefore be included in the text.[21] This approach would thereby overcome any confusion the term 'asphyxiating, poisonous or other gases, and of all analogous liquids materials or devices' could cause as to bacteriological weapons. This confusion was a real possibility, as there was a long-standing notion that chemical and biological weapons were part of the same threat.[22] Consequently, bacteriological weapons were incorporated in the final text. The 1925 Geneva Protocol was adopted on 17 June 1925 and ultimately entered into

14 Joyce (n11) 337; Asada (n13) 156.

15 Price (n11) 71-74; Kai Ilchmann and James Revill, 'Chemical and Biological Weapons in the 'New Wars'' (2014) 20 *Science and Engineering Ethics* 753, 755-756.

16 Art. 171 Treaty of Peace between the Allied and Associated Powers and Germany and Protocol, Versailles 28 June 1919, *UK Treaty Series 4 (Cmd. 153)* (1920).

17 John Norton Moore, 'Ratification of the Geneva Protocol on Gas and Bacteriological Warfare: A Legal and Political Analysis' (1972) 58 *Virginia Law Review* 419, 432-433.

18 Moore (n17) 433; William Boothby, *Weapons and the Law of Armed Conflict* (Oxford University Press 2016) 109.

19 Price (n11) 88-89; Jefferson (n11) 659; Boothby (n18) 109; Mathews (n6) 215; James Revill, ''Muddling Through' in the Biological and Toxin Weapons Convention' (2018) 55 *International Politics* 386, 389-390; Michael Bothe, 'The 1925 Geneva Protocol' in Eric Myjer & Thilo Marauhn (eds.), *Research Handbook on International Arms Control Law* (Edward Elgar 2022) 252.

20 Price (n11) 89-90.

21 Jefferson (n11) 658-659; Revill (n19) 390; Bentley (n10) 84.

22 Mathews (n6) 215-216; Revill (n19) 390.

force on 8 February 1928. The Protocol has since gained 146 States Parties and has for some time been regarded as reflective of international customary law.[23]

3.1 Scope of the Protocol

The 1925 Geneva Protocol consists of two main prohibitions, namely (1) 'the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices' and (2) 'the use of bacteriological methods of warfare'. Therefore, the Protocol only addresses use and not any preparatory act.

This prohibition is framed by the preamble as though the Protocol codifies already existing international law, as it states:

> Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids materials or devices, has been justly condemned by the general opinion of the civilized world; and
>
> Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the world are Parties.

As discussed in the previous section, it is questionable whether such a prohibition already existed in earlier instruments.[24] The 1925 Geneva Protocol specifically took lessons from the Hague Declaration's failure to prevent the use of chemical weapons during the First World War, through removing the reference to 'projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases'.

Making the prohibition more generic did not resolve all possible ambiguity and the terminology of the Protocol led to some discussion on whether all biological and chemical weapons were covered. With respect to chemical weapons, the discussions focused particularly on herbicides and riot-control agents. The text of the, equally authoritative, English and French texts diverge, leading to discussions as to whether the Protocol covers asphyxiating or poisonous gases as well as either *similar* gases or *all other* gases.[25] Some states, most notably and consistently the United States, argued that herbicides and riot-control agents would not be covered and consequently could be used during armed conflicts.[26] Such a restrictive approach to the prohibition seems contradictory to the intention of the drafters who sought to develop as broad a prohibition as possible, seeking to address the entire scope of chemical weapons.[27] A broader interpretation appears more logical and herbicides and riot-control agents should likely be considered as within the scope of the Protocol. This was also the interpretative approach taken in UN General Assembly Resolution 2603A, passed in 1969, which explicitly adopts a broad interpretation of the terms.[28] Resolution 2603A was however adopted with only eighty votes in favour, 36 abstention and most importantly there were 3 votes against the resolution from Australia, Portugal and especially the United States.[29] The votes against the Resolution were mainly due to these states viewing the 1925 Geneva Protocol as not covering riot-control agents and herbicides.[30]

[23] https://ihl-databases.icrc.org/en/ihl-treaties/geneva-gas-prot-1925/state-parties?activeTab=, last accessed 10 August 2025.
[24] Price (n11) 90-91.
[25] R. R. Baxter & Thomas Buergenthal, 'Legal Aspects of the Geneva Protocol of 1925' (1970) 64 *American Journal of International Law* 853, 856-857; Joyner (n1) 89; Alex Spelling, '"Driven to Tears": Britain, CS Tear Gas, and the Geneva Protocol, 1969-1975' (2016) 27(4) *Diplomacy & Statecraft* 701, 703; Asada (n13) 157.
[26] Baxter & Buergenthal (n25) 857, 865; Fitzgerald (n13) 435; Joyner (n1) 89; Spelling (n25) 703.
[27] Baxter & Buergenthal (n25) 857-861; Moore (n17) 454-468; Bothe (n19) 252-253.
[28] UN General Assembly Res 2603A(XXIV) 16 December 1969 UNDoc: A/RES/2603(XXIV).
[29] United Nations General Assembly, 1836th Plenary Meeting 16 December 1969, Official Record UNDoc: A/PV.1836, 16.
[30] Moore (n17) 433-435; Boothby (n18) 110.

The term bacteriological has also led to some ambiguity and discussion, as it could be argued that the prohibition was restricted to bacteria.[31] The term bacteriological stemmed from the fact that at the time the terms bacteriological and biological were used interchangeably. The intention of the drafters was to cover the entire scope of possible biological weapons and not restrict the prohibition to bacteria.[32] This approach to the 1925 Geneva Protocol was affirmed by the General Assembly in Resolution 2603A which proclaims that the Geneva Protocol "embodies the generally recognized rules of international law prohibiting the use in international armed conflicts of all biological and chemical methods of warfare, regardless of any technical developments... ."[33] Resolution 2603A interprets the prohibition as covering the whole scope of biological weapons and that this is not limited to bacteria. The votes against the Resolution were based on considerations concerning chemical weapons and there was no objection made to the approach taken by the Resolution on biological weapons. Consequently, the term bacteriological can convincingly be viewed as covering all possible biological weapons, even those that were unknown at the time.[34]

3.2 Limitations of the Protocol

While the scope of the 1925 Geneva Protocol has generally been interpreted broadly with regard to the agents it covers, the applicability of the Protocol is limited in other ways. The first clear limitation can be found in the fact that the Protocol only concerns the use of these agents 'in war'. At the time that the Protocol was adopted, this would have referred to instances of formally declared war, as was the custom at the time.[35] The practice of formally declaring war has fallen in disuse since the Second World War and the terminology has moved away from 'war' towards 'armed conflict'. Thus today, the term war in the 1925 Geneva Protocol should be considered as synonymous to armed conflict.[36] The term armed conflict could potentially include non-international armed conflicts as well, however the protocol states that the High contracting powers 'agree to be bound as between themselves', indicating that the obligation relates to behaviour towards the other high contracting powers.[37] Therefore, the Protocol is only applicable in international armed conflicts.[38] This has been affirmed by General Assembly Resolution 2603A which refers to the prohibition being applicable in international armed conflicts.[39] There have been some states that, in the responses to the use of chemical weapons by the Iraqi government against the Kurdish minority in the 1980s, have argued that the concept of war should include non-international armed conflicts. In this case chemical weapons were used outside of an international armed conflict and would not be covered by the prohibition of the 1925 Geneva Protocol according to the traditional view.[40] However, the US, Sweden and Iran argued in their responses to Iraq's use

31 Mathews (n6) 216; Eric Merriam, 'The International Legal Regime Affecting Bioterrorism Prevention' (2014) 3 *National Security Law Journal* 1, 6.

32 Anders Boserup (ed.), *CBW and the Law of War: Proceedings of a Seminar on the Problem of Chemical and Biological Warfare and the Law of War* (SIPRI, Almqvist & Wiksell 1973) 42-43; Jack Beard, 'The Shortcomings of Indeterminacy in Arms Control Regimes: The Case of the Biological Weapons Convention' (2007) 101 *American Journal of International Law* 271, 277.

33 UNGA Res 2603A(XXIV) 16 December 1969 UNDoc: A/RES/2603(XXIV).

34 Jozef Goldblat, 'The Biological Weapons Convention: An Overview' (1997) 318 *International Review of the Red Cross* 251, 251.

35 Mathews (n6) 216.

36 Andrea Goia, 'The Chemical Weapons Convention and its application in time of armed conflict' in: Michael Bothe, Natalino Ronzitti, and Allan Rosas (eds.) *The New Chemical Weapons Convention – Implementation and Prospects* (Kluwer Law International 1998) 379, 384; Asada (n13) 163.

37 Moore (n17) 672; Anne Lorenzat, 'The Current State of Customary International Law with regard to the Use of Chemical Weapons in Non-International Armed Conflicts' (2017) 56 *Military Law & the Law of War Rev* 349, 339.

38 Baxter & Buergenthal (n25) 868; Goia (n36) 384; Marauhn (n13) 30; Asada (n13) 164.

39 Asada (n13) 164.

40 Michael Scharf, 'Clear and Present Danger: Enforcing the International Ban on Biological and Chemical Weapons Through Sanctions, Use of Force, and Criminalization' (1999) 20 *Michigan Journal of International Law* 477, 481; Tatsuya Abe, *Syrian Chemical Weapons and International Law* (Springer 2023) 18.

of chemical weapons that the concept of war should incorporate non-international armed conflicts.[41] This interpretation, however, appears to be contrary to the text of the Protocol as well as the intention of its drafters. It is perhaps more appropriate to state that a customary rule has developed alongside the Geneva Protocol which does prohibit the use of chemical and biological weapons in non-international armed conflicts.[42]

Beyond the limitations in the text of the Protocol, its applicability was also limited by reservations made by many states. The first of these was a reservation explicitly stating that the 1925 Geneva Protocol did not restrict the use of chemical or biological weapons against states that were not party to the Protocol.[43] The relevance of this reservation was questionable, as the Protocol itself already included a reference to the reciprocity of the prohibition in the Protocol, when it states that the high contracting parties 'agree to be bound as between themselves'.[44] Accordingly, the Protocol did not establish generalized obligations that states assumed toward themselves; rather, it imposed prohibitions operative only in relation to the other High Contracting Parties.[45]

The second common reservation preserved the right to respond with chemical or biological weapons if any other party to the conflict used such weapons.[46] This reservation was not limited to reprisals in order to ensure a return to lawful behaviour from the initial user state, as it did not concern only states parties to the Protocol but reserved the right to retaliate, even against another state party, with chemical and biological weapons when a non-contracting party to the conflict who was allied to a contracting party used chemical or biological weapons.[47] A second respect in which the reservation exceeded the framework of reprisals was that it did not merely permit the use of chemical or biological weapons until the cessation of the initial breach of the Protocol; rather, it released the reserving party from all obligations under the Protocol for the duration of the armed conflict.[48] As this was a common reservation made by many of the states parties, it practically constrained the scope of the Protocol to only a prohibition of the first use of chemical and biological weapons.[49] While these reservations were very important in the initial decades of the 1925 Geneva Protocol, throughout the second half of the 20th century many states parties started to withdraw these reservations.[50] However, other states have retained their reservations and under the 1925 Geneva Protocol these states formally preserve the right to employ chemical or biological weapons in response to their use by an adversary. Their continued adherence to such reservations may also be interpreted as maintaining an objector status to a comprehensive ban on the use of chemical and biological weapons, at least insofar as they have not acceded to any subsequent treaty establishing such a prohibition.

3.3 Effectiveness of the Protocol

The 1925 Geneva Protocol may be regarded as having been relatively effective in limiting the use of chemical and biological weapons. During the Second World War, there was widespread apprehension that gas warfare would re-emerge on a scale comparable to that witnessed in the First World War. Yet, none of the parties to the 1925 Geneva Protocol made significant use of

41 Abe (n40) 18.
42 Bothe (n19) 253.
43 Fitzgerald (n13) 431; Thilo Marauhn, Chemical Weapons and Warfare (Max Planck Encyclopedia of Public International Law 2016) par. 20; Bentley (n10) 83.
44 Moore (n17) 453-454; Goia (n36) 388; Asada (n13) 160-161; Boothby (n18) 109-110.
45 Joyner (n1) 89.
46 Fitzgerald (n13) 431; Marauhn (n43) para. 20-21; Bentley (n10) 83.
47 Asada (n13) 161.
48 Goia (n36) 389; Asada (n13) 162.
49 Goia (n36) 389; Asada (n13) 162; Treasa Dunworth, 'The Chemical Weapons Convention in the Asia-Pacific Region' in: Suzannah Linton, Tim McCormack & Sandesh Sivakumaran (eds.), *Asia-Pacific Perspective on International Humanitarian Law* (Cambridge University Press 2019) 269; Abe (n40) 14.
50 Joyner (n1) 89-90.

chemical weapons. It is, however, debatable whether this restraint can be attributed directly to the Protocol. Although most of the belligerent states were parties to it, the decision not to employ chemical weapons appears to have been motivated primarily by strategic considerations rather than by adherence to a legal prohibition. The deterrent effect of anticipated retaliation, combined with the diminished military utility of chemical weapons in light of changes in the conduct of warfare since the First World War, were likely more decisive factors.[51] With the notable exception of the Second Italo-Ethiopian War, the Iran–Iraq War and recently the conflict between Russia and Ukraine, there have been no recorded instances of chemical or biological weapon use in international armed conflicts by states party to the Protocol.

Although states parties refrained from using chemical and biological weapons, this did not mean that states had no interest in them. In the decades after the adoption of the Protocol many states retained or developed a chemical and biological weapons programme and stockpiled vast quantities. Although the Protocol prohibited the first use of these weapons, they could still be employed in retaliation nor did it prohibit the development, production or stockpiling of chemical and biological weapons. This meant that there was an incentive for states to develop, produce and stockpile chemical and biological weapons, if for no other reason than the possibility to retaliate.[52] It was hence clear early on that the Protocol would not be sufficient to entirely prevent the threat of chemical and biological warfare.

4. The Biological Weapons Convention

The continued threat combined with the recognition of the weaknesses of the 1925 Geneva Protocol placed comprehensive prohibitions of chemical and biological weapons prominently on the agenda of the newly established United Nations. However, the first two decades after the end of the Second World War passed without much progress. This was in part due to chemical and biological weapons being discussed together, while the arguments against adopting a comprehensive prohibition were different for each.[53] Biological and chemical weapons were finally separated through a British proposal for a convention prohibiting biological weapons only, the first time since the 1925 Geneva Protocol that the two categories of weapons were to be approached differently.[54]

The BWC sought to build on the 1925 Geneva Protocol and expand the prohibition from the use of biological weapons to a comprehensive prohibition encompassing preparatory activities. This can clearly be seen in Article I BWC, which sets out the main prohibitions of the BWC. This article seeks to comprehensively prevent even the possibility of use by prohibiting the development, production, stockpiling, acquisition or retention of biological weapons. However it does not explicitly include use under the prohibited activities. The scope of these prohibitions is not restricted to armed conflicts, but States Parties undertake to 'never, under any circumstances' engage in the prohibited activities.[55] This is a logical extension from the prohibited activities, as restricting their applicability only to armed conflicts would leave them ineffective.

As there was some ambiguity in respect of the agents that fell under the 1925 Geneva Protocol, the BWC sought to clarify this. Instead of referring to bacteriological weapons, the BWC sought a more comprehensive approach and prohibits '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'.[56] Rather than prohibiting specific categories

[51] Joyce (n11) 342.
[52] Scharf (n40) 481.
[53] Goldblat (n34) 252.
[54] Mathews (n6) 220.
[55] Merriam (n31) 10.
[56] Article I BWC.

of agents, the BWC adopts what is commonly known as the *general purpose criterion*. Under this approach, agents are not banned in and of themselves, but are prohibited on the basis of the purposes for which they are employed. This framework enables the inclusion of all conceivable biological agents, provided their intended use is non-peaceful.[57] This also recognizes the dual-use nature of many biological agents, allowing activities involving such agents as long as they are not intended for hostile purposes.[58] There is therefore no longer any ambiguity on whether agents other than bacteria are covered by the prohibition.[59]

4.1 The Incorporation of the 1925 Geneva Protocol in the BWC

All this makes it seem as though the BWC sought to supplant the 1925 Geneva Protocol, to develop a more comprehensive prohibition that would render the Protocol practically obsolete, at least as far as biological weapons are concerned. However, it was not the intention that the BWC would replace or supplant the 1925 Geneva Protocol but rather complement and strengthen the Protocol.[60] This can be seen in the Preamble, which specifically recognizes the high significance of the Protocol and the contribution it has made and continues to make, to mitigate the horrors of war. The preamble also reaffirms states parties' 'adherence to the principles and objectives of that Protocol and calls upon all States to comply strictly with them'. The continued applicability of the 1925 Geneva Protocol is explicitly reiterated and affirmed in Art. VIII BWC, which states that '(n)othing in this Convention shall be interpreted as in any way limiting or detracting from the obligations assumed by any State under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925.' This shows the clear intention of the drafters to not supplant or replace the Protocol but to complement it.

The clearest recognition of the Protocol is not found in what the BWC covers but rather in what it does not address. The prohibitions included in Art. I BWC address many different acts but there is one significant exception, namely the use of biological weapons. Use was not included because it was already addressed under the 1925 Geneva Protocol. Several states did not want to reproduce the prohibition of use in the BWC on the basis that they did not want to limit the legitimacy and effectiveness of the Protocol. These states were afraid that if the legitimacy and effectiveness of the Protocol were negatively affected, this would impact the Protocol´s prohibition of chemical weapons.[61] While Art. I BWC has since been interpreted as a comprehensive prohibition,[62] which includes use, the lack of explicit reference to use in Art. I BWC showed the continued importance of the Protocol at the time of drafting the BWC.

By not incorporating use in Art. I BWC, this also meant that initially the prohibition of use remained restricted to the scope of the 1925 Geneva Protocol, meaning international armed conflict only. It also meant that the reservations that states made limiting the scope of the Protocol to a prohibition of first-use only, remained in place.[63] The possibility of retaliating with biological weapons use would practically be impossible for states parties to the BWC, as the prohibition to never, under any circumstances, produce, develop, stockpile, acquire or retain would prevent use, as use

57 Joyner (n1) 91; Ilchmann & Revill (n15) 756.
58 Joyner (n1) 91; Merriam (n31) 10-12.
59 Ana Cristina Gallega-Hernández, 'Biological Weapons and Their Incompatibility with IHL' in: Pablo Antonio Fernández-Sánchez (ed.) *The Limitations of the Law of Armed Conflict: New Means and Methods of Warfare* (Brill 2022) 73.
60 Ayers, 'The Biological Weapons Convention: Creation and Problems with Enforcement' (2012) 2 *J Biosecurity Biosafety & Biodefense L* 1, 6.
61 K. Reddy, 'The Regulation of Chemical and Biological Weapons in International Law: Preserving the Paradox of Humane War' (2008) 2008 *J S Afr L* 669, 678.
62 Fourth Review Conference of the Parties to the Convention on the prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, *Final Document* (BWC/CONF.IV/9 1996, 15.
63 Goldblat (n34) 257.

presupposes possession. The continued existence of such reservations was therefore clearly contradictory with the BWC, at least with regard to biological weapons.[64] This notion was explicitly addressed during the 4th Review Conference when states parties agreed that the existence of reservations to the 1925 Geneva Protocol was incompatible with the absolute and universal prohibition of the BWC, and called for all states parties that still had reservations to the 1925 Geneva Protocol to withdraw them.[65] This, combined with the decision by several Review Conferences to interpret Art. I BWC as effectivelty covering biological weapons use would mean that at least for states parties to the BWC, the existence of reservations no longer preserves the content of the reservations and the possibility of retaliatory use. This negates the importance of these reservations at least with regard to biological weapons, at least for states parties to the BWC, regardless of whether these reservations are withdrawn.

5. Chemical Weapons Convention

While the BWC provided a significantly more comprehensive prohibition on biological weapons, the Protocol remained the only instrument addressing the use of chemical weapons until the early 1990s. The BWC contained a specific provision urging States Parties to pursue further negotiations toward a convention prohibiting chemical weapons. However, only limited progress was achieved on this front for much of the remainder of the Cold War. Although the 1925 Geneva Protocol prohibited the use of chemical weapons in international armed conflicts, it neither eliminated chemical weapons programmes nor prevented their continued use. While since the adoption of the Geneva Protocol the prevalence and scale of chemical weapons use never reached the levels witnessed during the First World War I, several instances of their employment nonetheless occurred. This generally occurred during non-international armed conflicts or by non state parties. Nonetheless, there were also notable cases of chemical weapons use in interstate wars, most prominently during the Second Italo-Ethiopian War. During the Iran–Iraq War of the 1980s, Iraq, despite being a State Party to the Protocol, employed chemical weapons and sought to justify their actions through unsubstantiated claims that Iran had resorted to similar measures.[66] Many other states developed chemical weapons programmes or maintained stockpiles to retain the possibility or retaliating with chemical weapons.[67]

Since the early 1980s negotiations on a treaty text comprehensively prohibiting chemical weapons which would include a verification mechanism. After long negotiations, the final text of the CWC was ultimately adopted in 1992, the Convention opened for signature in 1993 and entered into force in 1997. Similar to the BWC, the CWC sought to take the prohibition of the 1925 Geneva Protocol and make it more comprehensive, not only prohibiting use but preventing the possibility of use. In this way the main prohibitions are comparable to the BWC, namely prohibiting the development, producing, otherwise acquiring, stockpiling or retaining chemical weapons.[68] It also sets out the obligation that state parties undertake to 'never under any circumstances' engage in these activities. The CWC also explicitly prohibits the use of chemical weapons, ensuring that the CWC comprehensively prohibits chemical weapons.[69] By committing themselves never to employ chemical weapons under any circumstances, States Parties broadened the prohibition to cover not only non-international armed conflicts but also situations occurring outside the context of armed

[64] Goldblat (n34) 257; Scott Keefer, 'International Control of Biological Weapons' (1999) 6 ILSA J Int'l & Comp L 107, 53; Merriam (n31) 13.

[65] Fourth Review Conference of the Parties to the Convention on the prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, *Final Document* (BWC/CONF.IV/9 1996) 22; Keefer (n63) 126-127.

[66] Fitzgerald (n13) 434.

[67] Fitzgerald (n13) 433.

[68] Art. 1(1) CWC.

[69] Asada (n13) 154.

conflict, scenarios to which the 1925 Geneva Protocol did not apply.[70] This was a concern which was particularly acute in light of the then-recent use of chemical weapons against the Kurdish population in Iraq. The importance of expanding the prohibition to these situations became especially clear in the case of the Syrian civil war, which saw the use of chemical weapons by state forces and non-state armed groups. Although Syria was a state party to the 1925 Geneva Protocol, the Protocol did not actually prohibit the use of chemical weapons during this conflict, as it was a non-international armed conflict. This made it even more important for Syria to accede to the CWC.[71] By committing never to use chemical weapons under any circumstances, the CWC removes the limitations contained in the 1925 Geneva Protocol. The Protocol's prohibition was conditioned on reciprocity and, as such, did not apply to non-States Parties. In contrast, the CWC establishes an absolute ban, thereby prohibiting the use of chemical weapons even against non-Parties to the Convention.[72] The CWC also does not allow reservations and therefore it is impossible for states to limit the scope of the prohibition on use to cases of reciprocity, as many states had originally done with the 1925 Geneva Protocol.

The CWC provides greater clarity regarding its scope than the 1925 Geneva Protocol. While the Protocol prohibited the use of "asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices," its wording gave rise to debates concerning the precise scope of the prohibition. By contrast, the CWC, following the approach of the BWC, adopts the *general purpose criterion*.[73] It does not prohibit specific agents or specific types of agents and rather defines chemical weapons as '(t)oxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes'.[74] This means that the purpose of the agent determines whether it is considered a chemical weapon.

The CWC also provided clarity concerning some specific types of agents whose legality was ambiguous under the 1925 Geneva Protocol. This first concerns riot-control agents, which the CWC explicitly prohibits as a means of warfare. This means that while riot-control agents can legitimately be employed in the context of law enforcement, their use is prohibited as a method of warfare during an armed conflict.[75] While this approach aimed to resolve the ambiguities surrounding riot-control agents, it simultaneously introduced new uncertainties. In particular, ongoing debates, most prominently advanced by the United States, have argued that certain uses of riot-control agents during armed conflict should not be regarded as a means of warfare, and could therefore be considered legitimate.[76] This includes for example rescue operations and suppression of riots in prisoner of war camps.[77]

5.1 The Incorporation of the 1925 Geneva Protocol in the CWC

Given the CWC's near-universal membership, it is questionable whether the Protocol retains any significant role in the regulation of chemical weapons. Nonetheless, the CWC explicitly

[70] Goia (n36) 384; Andreas Zimmermann & Meltem Sener, 'Chemical Weapons and the International Criminal Court' (2014) 108 *The American Journal of International Law* 438-448, 437-438; Marauhn (n13) 31.

[71] Asada (n13) 154.

[72] Goia (n36) 389; Asada (n13) 178.

[73] Joyner (n1) 102; Marauhn (n43) par. 4.

[74] Art. II(1)(a) CWC.

[75] Ilchmann & Revill (n15) 757; Marauhn (n13) 31-32; Asada (n13) 169-170.

[76] Executive Order No. 11850 (40 Fed. Reg. 16187); Section 1232, National Defense Authorization Act for Fiscal Year 2006, 6 January 2006; Statement Of Joseph A. Benkert, Principal Deputy Assistant Secretary of Defense for International Security Policy, Hearing before the Subcommittee on Readiness and Management Support of the Committee on Armed Services, United States Senate 27 September 2006.

[77] Natalino Ronzitti, 'Relations between the Chemical Weapons Convention and Other Relevant International Norms' in: Daniel Bardonnet (ed.), *The Convention on the Prohibition and Elimination of Chemical Weapons: a Breakthrough in Multilateral Disarmament* (Nijhoff 1995) 167, 174-175; Joyner (n1) 108-110; Boothby (n18) 121-123.

acknowledges the continuing importance of the Protocol. The Preamble reaffirms the principles and obligations arising from the Protocol. Moreover, the Preamble clarifies that the CWC was intended to complement the obligations assumed under the 1925 Geneva Protocol. As with the BWC, it therefore seems that the drafters did not seek to replace the Protocol, but rather to reinforce and extend its provisions through additional obligations and the establishment of a verification regime.

The 1925 Geneva Protocol is also mentioned in the substantive text of the CWC. Art. XIII CWC states that 'nothing in this convention shall be interpreted as in any way limiting or detracting from the obligations assumed by any state under the Protocol'. This is at least partially due to the fact that unlike the CWC the 1925 Geneva Protocol does not only address chemical weapons but also imposes obligations concerning biological weapons. The practical impact of the overlap on the prohibition of chemical weapons may be limited, given that the CWC contains a far broader ban, the 1925 Geneva Protocol nonetheless retains some significance, particularly with respect to herbicides. While the CWC seeks to address the vast majority of chemical weapons, it does restrict these to those that affect humans or animals, excluding herbicides.[78] While some states have argued that herbicides are beyond the 1925 Geneva Protocol, the general view is that the Protocol does include a prohibition on herbicides as a method of warfare.[79] The Protocol therefore remains the only instruments that prohibits the use of herbicides in international armed conflicts and thus retains its importance at least in that regard.

Article XIII CWC was originally interpreted by some states as preserving their reservations to the 1925 Geneva Protocol and incorporating these in the context of the CWC.[80] However, Art. XIII CWC refers to 'limiting or detracting', indicating that it only addresses instances where the scope of the 1925 Geneva Protocol is broader than the CWC. In the case of more permissive obligations under the 1925 Geneva Protocol, these can be restricted by the CWC on the basis of *lex posterior*.[81] This is in line with Art. 30 Vienna Convention on the Law of Treaties, which states that provisions of an earlier treaty can continue to be applied as long as they are compatible with the later treaty.[82] The prohibition on use in Art. I CWC specifically phrases the prohibition as 'never under any circumstances', thereby prohibiting use even in the case of reprisal.[83] Consequently, the significance of these reservations has disappeared for any state party to the CWC.[84]

Another explicit reference to the 1925 Geneva Protocol can be found in Art. XVI CWC. This article addresses withdrawal from the CWC and states that any potential withdrawal from the CWC 'shall not in any way affect the duty of states to continue fulfilling the obligations assumed under any relevant rules of international law, particularly the Geneva Protocol of 1925.' This, however, also means that with the withdrawal from the CWC any reservation to the Protocol would once again go into effect if the withdrawing state has not withdrawn their reservation.[85]

6. Customary International Law

The prohibition on the use of chemical and biological weapons in armed conflict has long been recognized as customary international law. Although this was not the case at the time of the adoption of the 1925 Geneva Protocol, over the subsequent decades the prohibition crystallized

[78] Goia (n36) 386; Reddy (n61) 682-683; Asada (n13) 176-177.

[79] UN General Assembly Res 2603A(XXIV) 16 December 1969 UNDoc: A/RES/2603(XXIV); International Committee of the Red Cross, *Customary International Humanitarian Law Database* Rule 73 and associated practice, accessible online at: https://ihl-databases.icrc.org/en/customary-ihl/v1/rule76 and associated state practice.

[80] Marauhn (n13) 34; Asada (n13) 182-183.

[81] Ronzitti (n77) 169; Joyner (n1) 90; Marauhn (n13) 34; Asada (n13) 180-184.

[82] Goia (n36) 392.

[83] Goia (n36) 370; Reddy (n61) 681.

[84] Ronzitti (n77) 169; Boothby (n18) 110; Lorenzat (n37) 389.

[85] Ronzitti (n77) 170-171; Goia (n36) 394.

into a customary norm.[86] This recognition emerged even prior to the conclusion of the BWC and CWC, as evidenced by UN General Assembly Resolution 2603 A (XXIV), which affirmed the customary nature of the prohibition. Although the resolution was not adopted unanimously, with both abstentions and votes against, it has nonetheless been widely cited as reflecting *opinio juris*.[87] The customary character of the prohibition has subsequently been reaffirmed in later resolutions of the General Assembly, including Resolutions 2707 (XXV),[88] 2795 (XXVI),[89] and 42/37C,[90] thereby reinforcing its status as a binding rule of customary international humanitarian law.

The precise scope of the customary prohibition on chemical and biological weapons has evolved over decades, thereby diminishing the substantive importance of the 1925 Geneva Protocol. While the Protocol continues to serve as the historical foundation of the prohibition and constitutes significant evidence of early state practice, the content of the customary rule has since developed beyond it. In the period following the adoption of the BWC and the CWC, customary international law has progressively aligned with the broader prohibitions enshrined in these treaties.[91] As a result, the customary norm is no longer confined to regulating the use of chemical and biological weapons in the context of armed conflict but has instead crystallized into a generalized prohibition on their use under all circumstances.[92]

Consequently, even in the domain of customary international law, the prohibitions originally articulated in the 1925 Geneva Protocol have mostly been supplanted and subsumed by the broader and more comprehensive prohibitions codified in the BWC and CWC. The customary international prohibition exists in parallel with the 1925 Geneva Protocol. Therefore, while the customary international prohibition has expanded beyond solely a prohibition on use in international armed conflict, the 1925 Geneva Protocol still exists as an independent treaty prohibition restricted to use in international armed conflict, which has informed the creation of customary international law.

7. Is There Continued Relevance for the 1925 Geneva Protocol?

As the foregoing analysis demonstrates, the 1925 Geneva Protocol has been largely supplanted by the BWC and CWC, raising the question of whether the Protocol today remains relevant or should be regarded as little more than a relic of a bygone era. Both the CWC and BWC, however, explicitly incorporate the Protocol within their preambles and contain provisions stipulating that “nothing in this Convention shall be interpreted as in any way limiting or detracting from the obligations assumed by any State under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925.” As mentioned in the preambles it was the intention of both the BWC and CWC not to supplant the 1925 Geneva Protocol but rather to reaffirm and complement its prohibitions.[93] These references to the 1925 Geneva Protocol show that the Protocol is not abrogated due to the existence of the BWC and CWC, as this only occurs in cases of strict inconsistency or if it can be inferred from the intent of the parties.[94] This demonstrates that the drafters of the later conventions still considered the Protocol to retain a degree of legal significance.

[86] Baxter & Buergenthal (n25) 853; Reddy (n61) 674-675; Ilchmann & Revill (n15) 756; Lorenzat (n37) 390; Gallego-Hernández (n59) 73.
[87] Abe (n40) 28.
[88] UN General Assembly Res 2707 (XXV) 14 December 1970 UNDoc: A/RES/2707(XXV).
[89] UN General Assembly Res 2795 (XXVI) 22 November 1971 UNDoc: A/RES/2795(XXVI).
[90] UN General Assembly Res 42/37C 30 November 1987 UNDoc: A/RES/42/37.
[91] Boothby (n18) 115, 124.
[92] Jean-Marie Henckaerts and Louise Doswald-Beck, *Customary International Humanitarian Law Volume I: The Rules* (Cambridge University Press 2005) 256-267.
[93] Mathews (n6) 223.
[94] Art. 59 Vienna Convention on the Law of Treaties; Ronzitti (n77) 168-169.

One explanation for this continued recognition lies in the scope of the respective instruments. Whereas the BWC and CWC address biological and chemical weapons separately, the 1925 Geneva Protocol remains the only treaty instrument that explicitly prohibits both categories of weapons. Consequently, a state that is party to only one of the two conventions would not, absent the Protocol, be legally bound by treaty to refrain from the use of the other category of weapon but only by customary international law. In this respect, the Protocol continues to perform a residual function in reinforcing the universality of the prohibition.

For those states that have not acceded to either the BWC or the CWC, the 1925 Geneva Protocol remains the only treaty-based instrument prohibiting the use of biological or chemical weapons, respectively, at least for those that are parties to it, which includes Israel, North Korea, Egypt, and Syria. Nevertheless, the comprehensive prohibitions contained in the BWC and CWC are widely regarded as reflecting customary international law and are therefore binding upon all states, irrespective of treaty membership.[95] A complicating factor, however, is that both North Korea and Israel have maintained reservations to the Protocol that preserve their claimed right to employ chemical or biological weapons in retaliation.[96] Israel even retains its reservation specifically setting out that they only consider the protocol binding as regards other states parties.[97] One could contend that those states which have maintained these reservations and have not become parties to either the CWC or the BWC thereby preserve the position that they retain a right of retaliatory use of chemical or biological weapons, respectively.[98] By maintaining their reservations to the 1925 Geneva Protocol and refraining from joining the CWC, in the case of North Korea, or from acceding to either the BWC or the CWC, in the case of Israel, it may be argued that these states continue to position themselves as persistent objectors to the comprehensive prohibitions on biological and chemical weapons.[99] Their explicit retention of the claimed right to employ such weapons in retaliation evidences a deliberate and consistent rejection of the universalizing trend embodied in the later treaty regimes and customary international law.

While the prohibitions in the Protocol are therefore of only limited added value to those states that are also states party to the BWC and CWC, there are still several areas in which the 1925 Geneva Protocol is relevant. One of the main aspects is that the 1925 Geneva Protocol remains the principal instrument that prohibits the use of herbicides as a method of warfare. While other chemical weapons are now comprehensively prohibited by the CWC, this treaty explicitly excludes herbicides. At the same time the only other instrument that could be used to prohibit the use of herbicides, namely the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD) contains significant restrictions that would prohibit herbicides only in certain specific situations[100] and has significantly fewer states parties than the 1925 Geneva Protocol. This in itself already ensures that membership to the 1925 Geneva Protocol remains important and that the withdrawal of any existing reservations remains important as well.

95 Michael Wood and Omri Sender, 'Customary International Law' (Max Planck Encyclopedia of Public International Law 2024) available online at: https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1393?rskey=Dl266o&result=1&prd=MPIL.

96 https://ihl-databases.icrc.org/en/ihl-treaties/geneva-gas-prot-1925/state-parties/kp?activeTab=; https://ihl-databases.icrc.org/en/ihl-treaties/geneva-gas-prot-1925/state-parties/il?activeTab=.

97 788 UNTS 1971, 367.

98 Keefer (n64) 121-122; Gallego-Hernández (n59) 74-75; Abe (n40) 33-32.

99 Abe (n40) 32.

100 Second Review Conference of the Parties to the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, Final Document, UNDoc: ENMOD/CONF.II/12 (Sept. 22, 1992) 11-12; Silja Vöneky, 'The ENMOD Convention' in Thilo Marauhn and Eric Myjer (eds.), *Research Handbook on International Arms Control Law* (Edward Elgar Publishing, 2022) 367; Joanna Jarose, 'A Sleeping Giant? The ENMOD Convention as a Limit on International Environmental Harm in Armed Conflict and Beyond' (2024) *The American Journal of International Law* 468-511, 493, 506.

Another important instance where the importance of the 1925 Geneva Protocol can be seen concerns the United Nations Secretary-General Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM). This is a mechanism that authorizes the Secretary-General to initiate an investigation if a member state of the UN submits a report alleging possible chemical or biological weapons use.[101] The mechanism was set up by the Security Council in Resolution 620, responding to allegations concerning chemical weapons use during the Iran-Iraq conflict.[102] This is not a standing mechanism, instead the UN Secretary-General can call on lists of expert consultants, qualified experts and analytical laboratories, nominated by member states.[103]

The UNSGM has not been employed often, with only three investigations having taken place. All three instances revolved around the alleged use of chemical weapons. In 1992 the mechanism was invoked twice, related to incidents in Azerbaijan and Mozambique.[104] With regard to chemical weapons, the relevance of the mechanism decreased when the CWC entered into force and the OPCW took over the responsibility of investigations allegations of chemical weapons use for states party to the CWC. However, the UNSGM remained the sole body authorized to investigate allegations of chemical weapons use for non-state parties and therefore was the body called upon to investigate allegations of possible chemical weapons in Syria in 2013. The initial investigation was conducted within the context of the UNSGM with support from the OPCW and the WHO.[105] After Syria had become a party to the CWC the investigation into further instances of alleged chemical weapons use was taken over by the OPCW.[106] The relevance of the UNSGM for chemical weapons is therefore reduced to only covering 4 states, Israel, Egypt, North Korea and South Sudan. In the context of biological weapons, it remains the only instrument to investigate alleged incidents of use.

The debates surrounding the Rome Statute further illustrate the continuing significance of the 1925 Geneva Protocol as a baseline standard and its influence on the formation of related customary international law rules. Although the CWC had been adopted in 1993 and entered into force in 1997, the Rome Statute did not incorporate its more modern terminology. Instead, the Statute's only clear provision on chemical weapons, Article 8(2)(b)(xviii), directly reflects the wording of the 1925 Geneva Protocol, prohibiting the use of "asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices." This reliance on the Protocol highlights its enduring influence as the foundational treaty prohibiting chemical weapons, even decades after the adoption of more comprehensive instruments such as the BWC and CWC.

The prominence of the Protocol in the Rome Statute is not the result of doubts about the prohibition of chemical weapons, but rather of the broader political dispute surrounding nuclear weapons. Deep divisions between nuclear-armed states and some of their allies, which resisted their criminalization, and states within the Non-Aligned Movement, which strongly supported it, created significant obstacles during the Rome negotiations.[107] As no consensus could be reached, a

[101] Stuart Casey-Maslen, *Arms Control and Disarmament Law* (Oxford University Press 2021) 58.

[102] UN Security Council Resolution 620(1988), 26 August 1988 UNDoc: S/RES/620(1988).

[103] Una Jakob, Stefan Kloth and Ines Mergler, Investigation of Alleged Use of Biological Weapons – Strengthening the UN Secretary-General's Mechanism (PRIF Report 7/2024) 11-12.

[104] Ibid., 11.

[105] UN General Assembly, Report of the United Nations Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic on the alleged use of chemical weapons in the Ghouta area of Damascus on 21 August 2013, 16 September 2013, UNDoc: A/67/997; Almuntaser Albalawi and Kristoffer Burck, 'Chemical weapons investigation mechanisms in Syria: Standards of proof and methods of work' (2024) 13 *Zeitschrift für Friedens- und Konfliktforschung* 369-388, 372.

[106] Albalawi and Burck (n105) 372-373.

[107] Philippe Kirsch and John T Holmes, 'The Rome Conference on an International Criminal Court: The Negotiating Process' (1999) 93(1) *The American Journal of International Law* 2, at 4; Mahnoush H Arsanjani, 'The Rome Statute of the International Criminal Court' (1999) 93 *The American Journal of International Law* 22, at 34; Roger S Clark, 'Building on Article 8(2)(b)(xx) of the Rome Statute of the International Criminal Court: Weapons and Methods of

compromise was struck that removed all references to weapons of mass destruction and avoided a generic clause encompassing all prohibited weapons.[108] Nonetheless, Article 8(2)(b) incorporates language drawn directly from the 1925 Geneva Protocol, prohibiting the use of "poisonous or asphyxiating gases." This demonstrates that, even where states disagreed on the broader category of "chemical weapons," the standard articulated in the Protocol remained a universally accepted *de minimis* benchmark. It reflects not only the enduring customary character of the prohibition but also its recognition of its criminalization under international law.

The 1925 Geneva Protocol also serves as a form of redundancy control for the BWC and CWC. Unlike those later treaties, both of which contain provisions permitting withdrawal, the Protocol includes no such clause. Under the Vienna Convention on the Law of Treaties, withdrawal from a treaty that lacks an express denunciation clause is permissible only if (i) it can be established that the parties intended to admit the possibility of withdrawal, or (ii) such a right may be implied from the nature of the treaty.[109] In the case of the Geneva Protocol, neither the text nor the *travaux préparatoires* suggest that the drafters contemplated the possibility of withdrawal. On the contrary, such an interpretation would be incompatible with the object and purpose of the treaty, which was to establish a perpetual prohibition on the use of chemical and biological weapons. Similarly, the nature of the Protocol militates against any implied right of withdrawal, particularly given its express aspiration that the prohibition "shall be universally accepted as a part of international law, binding alike the conscience and the practice of nations."

Accordingly, even for states already bound by the BWC and CWC, adherence to the 1925 Geneva Protocol remains important, as it reinforces the permanence of the prohibition and strengthens its universal applicability.

8. Conclusion

While the near-universal adoption of the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC) have significantly diminished the practical role of the 1925 Geneva Protocol, the instrument has by no means lost all relevance. Legally, the Protocol continues to exert influence as a component of customary international law, as a supplementary safeguard to the treaty regimes of the BWC and CWC, and as the foundation for the United Nations Secretary-General's Mechanism (UNSGM), which remains the only mechanism available to investigate alleged use of biological weapons as well as chemical weapons for non-state parties to the CWC.

Beyond its residual legal significance, the Protocol retains considerable symbolic value. It represents the historical continuity of the international community's rejection of chemical and biological warfare and embodies the enduring global taboo against such weapons. Even as subsequent treaties have expanded and deepened the scope of legal obligations, the Protocol stands as a visible marker of the century-long struggle to prohibit these weapons, reinforcing the moral and political consensus that their use is unacceptable.

Accordingly, it remains important to encourage those states that have not yet acceded to the Geneva Protocol to do so, thereby further consolidating the universality of the prohibition. Equally pressing is the need for states that maintain reservations—particularly those limiting the prohibition to a ban on first use—to withdraw them, affirming unequivocally that any use of chemical and biological weapons is unlawful. This is especially significant with regard to states such as Israel and

Warfare' (2009) 12(3) *New Criminal Law Review* 366, at 367-368, 371; Annie Golden Bersagel, 'Use of Nuclear Weapons as an International Crime and the Rome Statute of the International Criminal Court' in: Gro Nystuen, Stuart Casey-Maslen & Annie Golden Bersagel (eds.), *Nuclear Weapons under International Law* (Cambridge University Press 2014) at 222-223.

108 Amal Alamuddin & Philippa Webb, 'Expanding Jurisdiction over War Crimes under Article 8 of the ICC Statute' (2010) 8 *Journal of International Criminal Justice* 1219, at 1222-1223 1228.

109 Art. 56 Vienna Convention on the Law of Treaties.

North Korea, which are not party to the BWC or CWC and could otherwise be seen as persistent objectors to the comprehensive prohibition regime.

Thus, even in the era of the BWC and CWC, the Geneva Protocol retains relevance: as the foundation of the chemical and biological weapons prohibition regime, as a source of customary international law, as a universal baseline binding upon nearly all states, and as a political and symbolic instrument sustaining the global taboo. A century after its adoption, the Protocol endures not only as a historical milestone but also as a continuing reminder of the international community's enduring abhorrence of chemical and biological warfare.

The CBW network for the comprehensive strengthening of norms against chemical and biological weapons (CBWNet)

The research project CBWNet is carried out jointly by the Berlin office of the Institute for Peace Research and Security Policy at the University of Hamburg (IFSH), the Chair for Public Law and International Law at the University of Gießen, the Peace Research Institute Frankfurt (PRIF) and the Carl Friedrich Weizsäcker-Centre for Science and Peace Research (ZNF) at the University of Hamburg. The joint project aims to identify options to comprehensively strengthen the norms against chemical and biological weapons (CBW).

These norms have increasingly been challenged in recent years, *inter alia* by the repeated use of chemical weapons in Syria. The project scrutinizes the forms and consequences of norm contestations within the CBW prohibition regimes from an interdisciplinary perspective. This includes a comprehensive analysis of the normative order of the regimes as well as an investigation of the possible consequences which technological developments, international security dynamics or terrorist threats might yield for the CBW prohibition regimes. Wherever research results point to challenges for or a weakening of CBW norms, the project partners will develop options and proposals to uphold or strengthen these norms and to enhance their resilience.

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