



## Implementing the Convention on the Prohibition of Chemical Weapons

by Daniel White

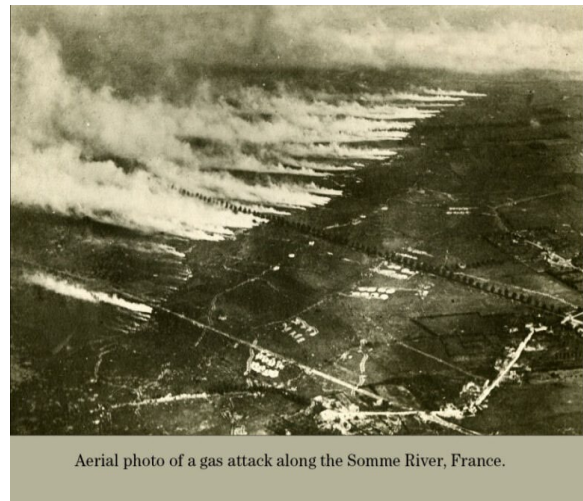
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### Introduction

The *Convention on the Prohibition of Chemical Weapons* (CWC) stands as one of the most successful arms control treaties produced by the UN both in its implementation and its member support. At a time when other arms control and disarmament agreements have collapsed, the CWC remains somewhat healthier than most. Major powers are not withdrawing. But it faces serious challenges, including the recent use of chemical weapons by Russia and Syria. Ensuring the Treaty's future is the responsibility of First Committee at ODUMUNC 2025

After coming into force in 1997, the CWC enjoyed widespread support. Initially it had great success. During the first decade following its ratification, “as of March 16, 2007, 100% of declared chemical weapons production facilities have been inactivated and 90% of these facilities have been destroyed or converted to peaceful purposes, 30% of the 8.6 million chemical munitions and containers covered by the CWC have been verifiably destroyed, and almost 25% of the world's declared stockpile of approximately 71,000 metric tons of chemical agent have been verifiably destroyed. Since April 1997, the OPCW [Organization for the Prohibition of Chemical Weapons, the independent agency implementing the treaty] conducted 2,800 inspections at 200 chemical weapon-related sites and over 850 industrial sites in 77 States Parties.”<sup>1</sup>

Despite early achievements, trust in the CWC, and in the rule of international law in general, is decreasing. Several states around the world have recently violated the CWC. They face few consequences. Ensuring that the CWC continues to be relevant, respected and properly implemented is essential for creating a safer world and restoring the trust in the rule of law.



Aerial photo of a gas attack along the Somme River, France.

What the CWC was designed to prevent. Chemical weapons attack in the First World War, 1916.

### Background

The technological advancements in warfare that have become synonymous with the memory of the First World War. They remain a major concern for states to this day. The development and mass production of the tank, airplane, and chemical weapons continued throughout the

<sup>1</sup> The Chemical Weapons Convention  
[https://www.asil.org/insights/volume/11/issue/12/che](https://www.asil.org/insights/volume/11/issue/12/chemical-weapons-convention-after-ten-years-successes-and-future)

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20th Century and proliferated into militaries and non-state armed groups into the 21st Century.

With chemical weapons, despite an effort made by the 1899 Hague Peace Conference to “prohibit the use of projectiles the only object of which is the diffusion of asphyxiating or deleterious gases,”<sup>2</sup> armies in Western Europe began deploying chlorine gas that causes choking, sulfur mustard that causes the blistering of both the external and internal tissues, and hydrogen cyanide which results in asphyxiation.<sup>3</sup> Between 1915 and the war’s end in 1918, chemical weapons accounted for over 1,000,000 injuries and 100,000 deaths to soldiers on all sides.<sup>4</sup>

After the War, Chemical weapons became a prelude to the nuclear deterrence of the Cold War. Even though the Geneva Protocol of 1925 banned the use of chemical weapons in war, it did not prohibit the “research and stockpiling” of them, but instead recognized a state’s right to use them for retaliatory purposes.<sup>5</sup> Thus, large masses of chemical weapons were produced and hoarded by states to use them in the event that they were first subjected to a chemical attack.

This deterrence kept major powers from engaging in chemical warfare against each other but did not stop them from using the weapons against weaker powers several times in the following decades. Since 1918, chemical weapons have either been confirmed or suspected to have been used in smaller scale

conflicts around the world. The Spanish military used planes to drop mustard gas during the Rif War in Morocco.<sup>6</sup> Mussolini’s Italy used chemical weapons during its invasion of Ethiopia.<sup>7</sup> Imperial Japan’s infamous Unit 731 conducted chemical weapons experiments on civilians and POWs<sup>8</sup> and the United States extensively used chemical weapons such as Agent Orange, though legal under international law since they target foliage and are not intended to cause human suffering,<sup>9</sup> causing environmental destruction and military and civilian injuries on both sides during its war in Vietnam.<sup>10</sup>

### Chemical Weapons Use Since WWI

- Morocco, 1923-1926
- Libya, 1930
- China, 1934
- Ethiopia, 1935-1940
- Manchuria, 1937-1942
- Yemen 1963-1967
- Vietnam 1960s
- Iran 1980-1988
- Japan 1994, 1995
- Syria 2012-present
- Malaysia, 2017
- United Kingdom, 2018

The governing authorities of states have also used them against political dissidents or marginalized populations within their own borders. Saddam Hussein attacked 40 villages in

<sup>2</sup> Laws of War: Final Act of the International Peace Conference. July 29, 1899, [https://avalon.law.yale.edu/19th\\_century/final99.asp](https://avalon.law.yale.edu/19th_century/final99.asp)

<sup>3</sup> Chemical Weapons, <https://www.britannica.com/technology/chemical-weapon>

<sup>4</sup> The Past, Present and Future of the Chemical Weapons Convention, <https://www.armscontrol.org/events/2018-10/past-present-future-chemical-weapons-convention>

<sup>5</sup> Ibid.

<sup>6</sup> Chemical weapons in the Rif War, [https://www.chemeuropa.com/en/encyclopedia/Chemical\\_weapons\\_in\\_the\\_Rif\\_War.html](https://www.chemeuropa.com/en/encyclopedia/Chemical_weapons_in_the_Rif_War.html)

<sup>7</sup> Ethiopia Special Weapons, <https://www.globalsecurity.org/wmd/world/ethiopia/index.html>

<sup>8</sup> Unit 731, <https://warfarehistorynetwork.com/article/japans-hellish-unit-731/>

<sup>9</sup> The Agent Orange Case

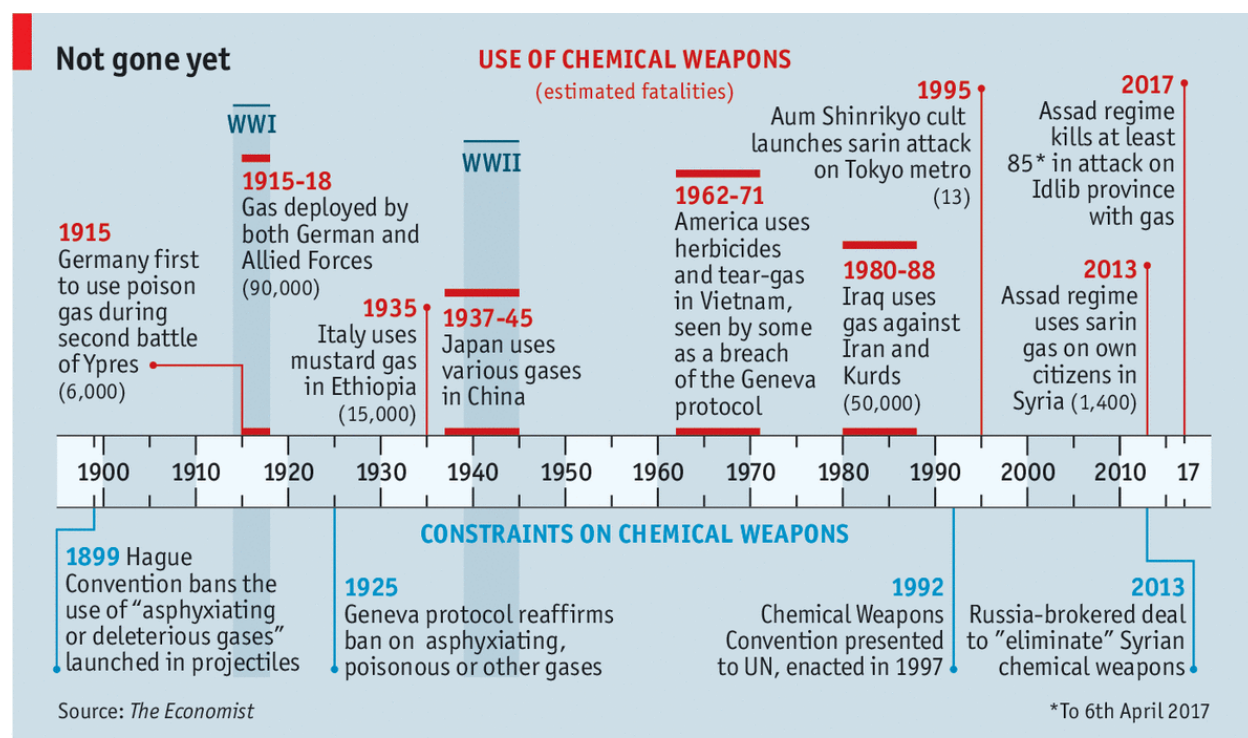
<sup>10</sup> Toxic Legacy, <https://www.peoplesworld.org/article/toxic-legacy-how-the-u-s-militarys-use-of-agent-orange-poisoned-vietnam/>

Northern Iraq to further secure his rule over the country.<sup>11</sup> More recently, Syrian military aircraft dropped chemical weapons in 2018, notably in the town of Douma, against rebel forces and civilian populations during the ongoing civil war.<sup>12</sup> Despite being a party to the CWC, Syria violated it by housing, developing, and using the weapons against military combatants and civilians, and refuses to allow OPCW inspections.

Chemical weapons are also employed on an individual basis to assassinate the enemies of states. In 2017, Kim Jong-nam was killed by a

chemical attack while he lived in Malaysia. Kim Jong-nam was the half-brother of North Korea's Kim Jong-un and a public critic of his brother's regime.<sup>13</sup>

A year later, former Russian agent Sergei Skripal and his daughter Yulia were poisoned by a Russian nerve agent called Novichok while living in the United Kingdom leading to a deterioration of diplomatic relations between the UK and Russia.<sup>14</sup> Similarly, Russia used chemical agents again against opposition figure Alexei Navalny in 2020.<sup>15</sup>



Economist.com

The results of these recent incidents reflect a breakdown for the creditability of international agreements and a growing mistrust among states. The CWC, along with other arms control

treaties, are being undermined by its ratifiers and not receiving major international backlash. Member states working with the OPCW have condemned Syria for its use of chemical

<sup>11</sup> Saddam's Chemical Weapons, <https://2001-2009.state.gov/r/pa/ei/rls/18714.htm>

<sup>12</sup> 'Reasonable grounds,' <https://news.un.org/en/story/2023/02/1133252>

<sup>13</sup> Nerve agent attacks, <https://www.bbc.com/news/world-asia-43418069>

<sup>14</sup> Salisbury poisoning, <https://www.independent.co.uk/news/uk/crime/salisbury-poisoning-sergei-skripal-russia-b2223018.html>

<sup>15</sup> Russia: The Navalny Poisoning, <https://crsreports.congress.gov/product/pdf/IF/IF11872>

weapons, but are blocked by Syria from inspecting its alleged chemical storehouses. Syria is supported by Russia, and a representative of Russia “described OPCW’s recent report as “unbalanced” and “one-sided”, stating that certain sections within it aim to “present Syria in a poor light.”<sup>16</sup>

Meanwhile, the United States promised to continue pushing Syria to comply with CWC provisions while China called for all sides to put aside their differences and work on cooperating together.<sup>17</sup> If Security Council members cannot enforce a treaty that they are all party to, then the creditability of international agreements comes into question.

It is feared that the potential use of chemical weapons is on the rise. As states selectively use them on a small scale without major repercussions, their usage could become more normalized until they become part of large-scale conflicts again. With the continuation of the Syrian Civil War, wars in Ukraine, Yemen, and Gaza, and non-state actors or terrorist groups resorting to asymmetrical warfare measures, the need to eliminate chemical weapons remains as relevant today as it did in 1918. It has been said that “all that is needed for the evil of chemical weapons to triumph is for responsible nations to acquiesce.”<sup>18</sup> The UN needs to continue and strengthen its measures to monitor and eliminate chemical weapons.

## Controlling Chemical Weapons

The history of attempting to control chemical weapons dates back to the 17th Century. The Strasbourg Agreement of 1675 brought states

together to ban the use of poison bullets.<sup>19</sup> Later, the Brussels Convention on the Law and Customs of War of 1874 and the aforementioned 1899 Hague Peace Conference outlawed the deployment of poisoned weapons.<sup>20</sup> These agreements centered on controlling chemicals released by projectile weapons. By the First World War, technology had improved enough to release chemicals from pressurized cylinders to cover the battlefield in a deadly haze. As far as international agreements were concerned, the letter of the law was upheld while its spirit had been broken.



Headquarters of the Organization for the Prohibition of Chemical Weapons (OPCW), the independent agency implementing the Chemical Weapons Convention. The Hague, Netherlands.

As noted, the Geneva Protocol of 1925 was able to curtail chemical weapons but still allowed them to slowly spread. Isolated cases of chemical weapons deployment continued until negotiations on a treaty to ban the weapons

<sup>16</sup> Two New Outstanding Issues, <https://press.un.org/en/2024/sc15811.doc.htm>

<sup>17</sup> Ibid.

<sup>18</sup> Arms Control Today, <https://www.armscontrol.org/act/2021-09/features/syria-russia-and-global-chemical-weapons-crisis>

<sup>19</sup> Origins, <https://www.acs.org/content/dam/acsorg/events/progam-in-a-box/documents/2016-global-security/cw-history.pdf>

<sup>20</sup> Ibid.

began in the UN Conference on Disarmament in 1980.<sup>21</sup>

After 12 years of negotiations, the *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction* (Chemical Weapons Convention or CWC) was adopted through the Conference on Disarmament and General Assembly on 3 September 1992.<sup>22</sup> After the 65th state ratified it, the CWC entered into force on 29 April 1997.<sup>23</sup>

As of 2022, 193 member states have either ratified or acceded to it. Israel has signed it but not ratified it, the Republic of China has pledged to comply with it, and only Egypt, North Korea, and South Sudan have neither signed nor ratified it.<sup>24</sup> It is considered one of the most successful arms control treaties with near total member support.

The key features of the CWC are:

*1. Each State Party shall submit to the Organization, not later than 30 days after this Convention enters into force for it, the following declarations, in which it shall:*

*(a) With respect to chemical weapons:*

*(i) Declare whether it owns or possesses any chemical weapons, or whether there are any*

*chemical weapons located in any place under its jurisdiction or control;*

*(ii) Specify the precise location, aggregate quantity and detailed inventory of chemical weapons it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with Part IV (A), paragraphs 1 to 3, of the Verification Annex, except for those chemical weapons referred to in sub-subparagraph (iii);*

*(iii) Report any chemical weapons on its territory that are owned and possessed by another State and located in any place under the jurisdiction or control of another State, in accordance with Part IV (A), paragraph 4, of the Verification Annex;*

*(iv) Declare whether it has transferred or received, directly or indirectly, any chemical weapons since 1 January 1946 and specify the transfer or receipt of such weapons, in accordance with Part IV (A), paragraph 5, of the Verification Annex;*

*(v) Provide its general plan for destruction of chemical weapons that it owns or possesses, or that are located in any place under its jurisdiction or control, in accordance with Part IV (A), paragraph 6, of the Verification Annex;<sup>25</sup>*

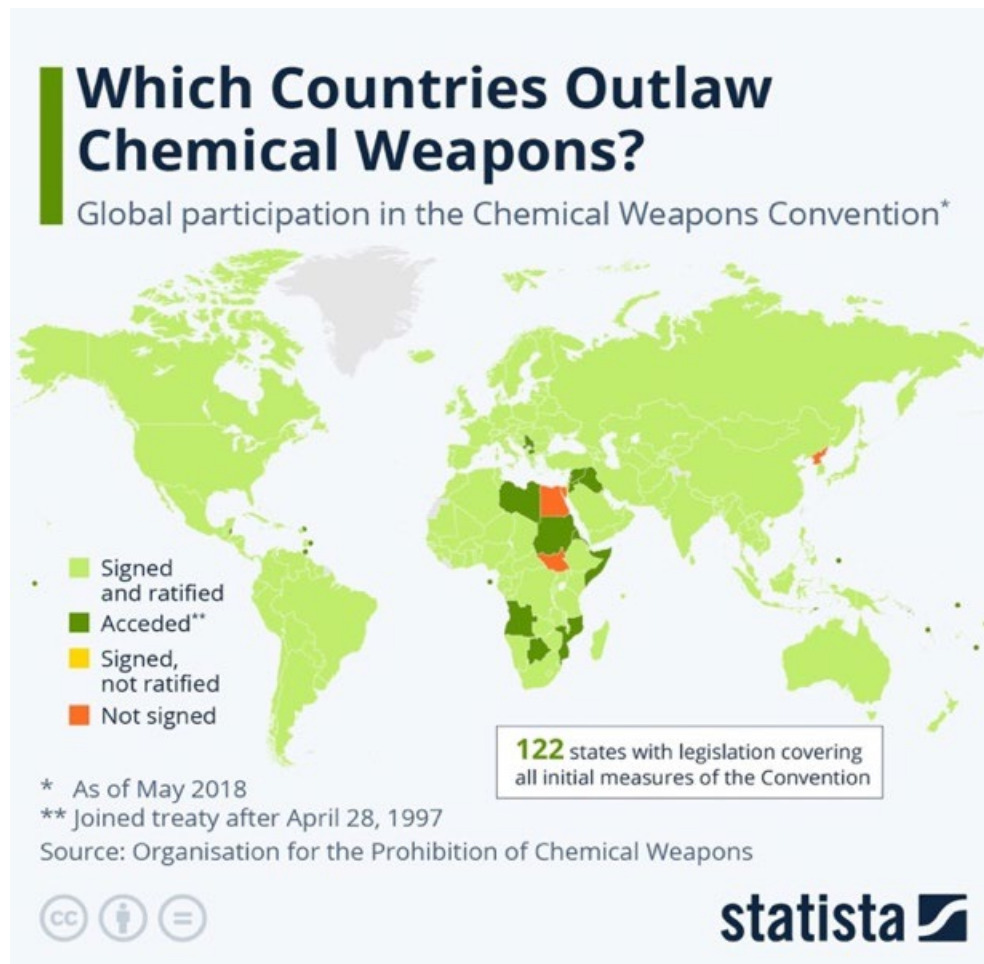
<sup>21</sup> The CWC, <https://www.armscontrol.org/factsheets/chemical-weapons-convention-cwc-glance-0>

<sup>22</sup> Chemical Weapons, <https://disarmament.unoda.org/wmd/chemical/>

<sup>23</sup> CWC, <https://www.armscontrol.org/factsheets/chemical-weapons-convention-signatories-and-states-parties>

<sup>24</sup> Ibid.

<sup>25</sup> Chemical Weapons Convention, [https://www.opcw.org/sites/default/files/documents/CWC/CWC\\_en.pdf](https://www.opcw.org/sites/default/files/documents/CWC/CWC_en.pdf)



Unlike other arms control treaties, the CWC explicitly creates an organization to enforce member state compliance with the treaty's provisions. The Organization for the Prohibition of Chemical Weapons (OPCW) is an international monitoring, inspecting, and reporting agency to oversee the mandates of the CWC. Aspects of the OPCW included in the treaty state:

*1. The States Parties to this Convention hereby establish the Organization for the Prohibition of Chemical Weapons to achieve the object and purpose of this Convention, to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for*

*consultation and cooperation among States Parties.*

*2. All States Parties to this Convention shall be members of the Organization. A State Party shall not be deprived of its membership in the Organization.*

*5. The Organization shall conduct its verification activities provided for under this Convention in the least intrusive manner possible consistent with the timely and efficient accomplishment of their objectives. It shall request only the information and data necessary to fulfil its responsibilities under this Convention. It shall take every precaution to protect the confidentiality of information on civil and military activities and facilities coming to its knowledge in the implementation of this*

*Convention and, in particular, shall abide by the provisions set forth in the Confidentiality Annex.*<sup>26</sup>



OPCW inspectors with the organization's flag

Member states agree to share the financial cost of maintaining the OPCW and comply with the organization's mission as agreed upon in the treaty.

## Implementing the CWC

Since the ratification of the CWC, the OPCW has been the main global initiative to eliminate chemical weapons. From its headquarters in The Hague, the OPCW's main body, called the Conference of the State's Parties, oversees the organization, monitors the treaty compliance, and promotes the mission to eliminate chemical weapons globally. Its Executive Council facilitates cooperation between states and the organization while the Technical Secretariat handles the hands-on assistance of inspecting and destroying chemical weapons.<sup>27</sup>

As of March 2024, the efforts of the OPCW and the 193 supportive member states have been overwhelmingly successful at monitoring and destroying chemical weapons. The OPCW

reports that 100% of the world's declared stockpiles of 72,304 metric tons of chemical weapons have been destroyed.<sup>28</sup> 74 out of the 97 declared chemical weapons production facilities have been destroyed with another 23 facilities being converted for peaceful purposes.<sup>29</sup>



Chemical weapons are prepared for destruction. Nina Notman, 'Destroying war's chemical legacy', *Chemistry World*, 18 June 2012, <https://www.chemistryworld.com/features/destroying-wars-chemical-legacy/5118.article>

In addition, thousands of civilian chemical facilities are routinely inspected and 151 out of the 193 states that support the treaty have passed or are in the process of passing domestic laws to comply with it. Compared to other arms control treaties such as those regarding biological or nuclear weapons, the CWC and member state compliance has been unprecedentedly successful and stands as an example of what the UN can accomplish when states work together.

## Sample State Positions

**China:** Before the CWC, China manufactured and sold chemical components to its allies. After becoming a party to the treaty, China has complied with the OPCW by destroying its

<sup>26</sup> Chemical Weapons Convention, [https://www.opcw.org/sites/default/files/documents/CWC/CWC\\_en.pdf](https://www.opcw.org/sites/default/files/documents/CWC/CWC_en.pdf)

<sup>27</sup> History, <https://www.opcw.org/about-us/history>

<sup>28</sup> OPCW, <https://www.opcw.org/media-centre/opcw-numbers>

<sup>29</sup> Ibid.



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stockpiles and allowing inspections. Though China is increasing its nuclear weapons arsenal, China is cooperative with the OPCW and committed to the elimination of chemical weapons.<sup>30</sup>

**Egypt** has neither signed nor ratified the CWC. Egypt is known to possess stockpiles of chemical weapons of various types. Egypt leads Arab and Islamic countries who insist that it will not make disarmament commitments until Israel abandons its nuclear weapons the Nuclear Non-Proliferation Treaty (NPT).<sup>31</sup>

**European Union** is a staunch supporter of eradicating chemical weapons. It has placed heavy sanctions on states and individuals who are known to finance them.<sup>32</sup>

**Israel** has signed the CWC but not ratified it. Israel maintains that chemical weapons are necessary for its survival. It views itself as having hostile neighbors, particularly Egypt, and will retain its chemical weapons until they are satisfied that the threat no longer persists.<sup>33</sup>

**North Korea** has neither signed nor ratified the CWC and is believed to be in possession of numerous types of chemical weapons. Reports of North Korea's chemical weapons status comes from South Korea, but the North has never denied their validity.<sup>34</sup> Along with nuclear and biological weapons, North Korea continues to develop chemical weapons.

**South Sudan:** Being a new state, South Sudan has been working on bringing itself into the UN system. Though not a signatory or ratifier of the CWC, South Sudan working closely with the OPCW to complete their accession process with the full intention of ratifying the treaty.<sup>35</sup>

**Russia** remains a party to the CWC. The United States has imposed sanctions on Russia for its use of chemical weapons in 2018 and in 2020. Russia denies its involvement in chemical weapons use. Fears that Russia may use or is already using chemical weapons in its war with Ukraine are of concern to the UN.

**Syria** denies its usage of chemical weapons and does not comply with CWC directives despite being a party to the treaty. Specifically, it views OPCW inspections as a violation of sovereignty.<sup>36</sup>

The **United States** announced that it had fully destroyed all of its chemical weapons by 2023. The United States is committed to implementing the CWC and has laid sanctions on states known or suspected of violating the treaty.<sup>37</sup>

## Some Proposals for Action

Given the success of the CWC at eliminating chemical weapons, it would be tempting to declare the issue resolved, and the world should divert resources away from chemical weapons

<sup>30</sup> Chemical and Biological Weapons, <https://www.globalsecurity.org/wmd/world/china/cbw.htm>

<sup>31</sup> Egypt Chemical Overview

<sup>32</sup> EU Sanctions, <https://www.consilium.europa.eu/en/press/press-releases/2021/10/11/eu-sanctions-against-chemical-weapons-renewed-for-one-year/>

<sup>33</sup> Israel Ratify, <https://nationalinterest.org/feature/should-israel-ratify-chemical-weapons-convention-204682>

<sup>34</sup> North Korea's WMD, <https://nationalinterest.org/blog/korea-watch/north->

[koreas-wmd-arsenal-unveiling-hidden-threat-chemical-and-biological-weapons](https://www.globalsecurity.org/wmd/world/china/cbw.htm)

<sup>35</sup> South Sudan, <https://www.opcw.org/media-centre/news/2023/11/south-sudan-announces-new-step-accession-procedure-chemical-weapons>

<sup>36</sup> OPCW Condemns, <https://www.state.gov/opcw-condemns-syrias-repeated-use-of-chemical-weapons/>

<sup>37</sup> US Completes, <https://www.defense.gov/News/Releases/Release/Article/3451920/us-completes-chemical-weapons-stockpile-destruction-operations/>



elimination to other forms of warfare. However, though substantial progress has been made, chemical weapons are not fully eradicated. Worse yet, the possibility always exists that chemical weapons could reemerge to prominence in the future.

The purpose of the CWC and the mission of the OPCW needs to continue to protect both the military and civilian citizens of the world. Several measures could be taken to ensure the continued implementation of the CWC:

- **All UN member states** need to fully ratify the CWC. States that have acceded to it need to partner with the OPCW to ensure a safe but accelerated path to full ratification. Israel, who has only signed it, and Egypt, North Korea, and South Sudan who have neither acceded nor ratified it are special cases that require an investigation into their underlying reasons from not affirming their support.
- **Call on states to address chemical weapons possession or use by non-state actors.** The UN operates on the system of states. Non-state actors and terrorist organizations, such as Islamic State or Al Qaeda, fall outside of the CWC and OPCW's purview. States need to take measures to ensure that any non-state organizations within their borders do not come to possess chemical weapons.
- **The UN Secretary-General further support the OPCW.** Taking some of the burden off the OPCW would help it to function more efficiently and raise awareness of chemical weapons issues. An office under the Secretary-General already exists, Secretary-General's

Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM), but it only reacts to reports from the OPCW.<sup>38</sup> Taking a more proactive role at organizing member state reports or a review of their domestic laws and rates of compliance would help the OPCW's furtherance of the CWC.

- **Mandatory** sanctions on all violators of the treaty. Violation is based on the development and use of chemical weapons against military or civilian personal and the refusal to allow OPCW inspections. States like Russia, Syria, and their allies may oppose this measure but if a coercive mechanism is required to ensure treaty compliance. States outside of the treaty may be sanctioned on a state by state basis.
- **Amend** the treaty to include the use of chemical defoliates, such as Agent Orange. While not directed at military or civil targets, the chemicals negatively affect human health on all sides of a conflict. The United States may oppose this measure but it should be added to protect human life.

Other possible proposals to be considered stem from the OPCW's 5 principles of prevention:<sup>39</sup>

- **Verification:** The UN can encourage careful global reviews to evaluate treaty compliance. Every two years, for example, the General Assembly could ask the OPCW to review all of the data collected by the OPCW to ensure that states are complying with the CWC. This includes on-site checking if states are using chemicals in ways stipulated in the treaty, are

<sup>38</sup> Secretary-General, <https://disarmament.unoda.org/wmd/secretary-general-mechanism/>

<sup>39</sup> Preventing, <https://www.opcw.org/our-work/preventing-re-emergence-chemical-weapons>

allowing UN inspections in their facilities, and are enacting or drafting domestic laws to implement the CWC. The GA can use this data to direct the OPCW to states that are in more immediate need of UN support.

- **International Chemical Trade:** Trade of chemicals of various classifications between states is already supposed to be reported to the OPCW's Technical Secretariat. An additional independent inspection agency should be created to verify that the reported transfer of chemicals across state borders is accurate and that no unreported chemical transfers are taking place.
- **Challenge Inspections:** As per the CWC, a state can request the OPCW to inspect any other state "any time, any place" if it believes a state to be in violation of the CWC. In practice, countries restrict OPEC access, often on the basis on national security. A challenge inspection can become a dangerous situation if the challenged state is hostile to the idea of being inspected. More measures should be taken to guarantee the safety of inspection teams and the veracity of their reports.
- **Targeting suspected treaty violators:** While the OPCW can only examine and verify CWC violations, the UN Member States can agree among themselves to impose sanction or even authorize military action to stop chemical weapons proliferation or use.

Whether than agree to do so, is another question. Much depends on the nature of the violation, who the violator is, and where they stand in relations with UN Member States.

- **Terrorism:** Again, while states can be expected to follow normative customs, terrorist organizations cannot be trusted. With the potential for catastrophic consequences should a terrorist organization acquire chemical weapons, the issue might be too large for the OPCW to handle alone. More measures are needed by the GA and SG to support states in their own efforts to eliminate and control their chemicals by following the CWC
- **Education:** The Hague Ethical Guidelines have already spread knowledge about the dangers of chemical misuse. It is vital to spread further awareness of this issue and not allow its future reemergence.



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