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## **Chemical Weapons Use in the Syrian Civil War: Challenges for International Law and Peacebuilding**

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### **ABSTRACT**

The Syrian Civil War has been one of the most destructive wars of the 21st century, characterized by the frequent use of chemical weapons in defiance of international legal bans. The use of chemical weapons, such as sarin and chlorine gas, has presented huge challenges to efforts at global disarmament, threatening the enforcement tools of international agreements such as the Chemical Weapons Convention (CWC) as well as the role of organizations such as the Organisation for the Prohibition of Chemical Weapons (OPCW). This paper critically analyzes the legal, geopolitical, and humanitarian consequences of the use of chemical weapons in Syria, addressing the efficacy of international law, limitations to enforcement mechanisms, and the intervention role of global actors in conflict resolution. Using a case study approach, this study examines the reactions of the United Nations (UN), OPCW, and key state actors like the United States, Russia, and regional powers in responding to breaches of chemical weapons norms. It also assesses the effects of these breaches on peacebuilding, especially in post-conflict reconstruction and transitional justice. The research identifies the shortcomings of the international community in



stopping chemical warfare and suggests policy proposals to improve enforcement measures, accountability, and incorporation of chemical weapons disarmament into overall frameworks for peacebuilding. In bringing together international law, security studies, and conflict resolution literatures, this paper enriches current scholarship on weapons of mass destruction (WMD) regulation and the future of arms control in conflict areas. The conclusions seek to offer insights into how global legal mechanisms can be reformed to more effectively counter security threats from chemical weapons, making the disarmament regime stronger and more enforceable.

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## INTRODUCTION

The Syrian war, which started in 2011, has been characterized by mass civilian suffering and successive breaches of international humanitarian law. The conflict has caused hundreds of thousands of civilian fatalities and displaced millions, through indiscriminate aerial bombardments, sieges, and deliberate attacks on civilian infrastructure, such as hospitals and schools. These moves flagrantly contravene the precepts of international humanitarian law, which are meant to safeguard civilians in the course of armed conflict (Pita, 2014). Chemical warfare in Syria has occasioned major losses of civilians, universally condemned. One of the first and most fatal attacks was in August 2013 in Eastern Ghouta when sarin gas claimed more than 1,400 lives, many of whom were children. This attack stunned the international community and underscored the gravity of chemical weapons deployment in the war. In April 2017, an attack involving sarin in Khan Shaykhun killed a minimum of 89 people and left hundreds injured, leading to U.S. air strikes against Syrian military facilities. Another prominent incident occurred in Douma in April 2018, where a chlorine gas attack claimed 43 lives and harmed dozens of others. Smaller-scale chlorine and other poisonous chemical attacks have been reported all over the war, frequently striking rebel-held towns. Both the Chemical Weapons Convention (CWC) and International Humanitarian Law (IHL) tried intervening during the Syrian Civil War but saw their enforcement severely challenged and, as such, extensively violated. Syria ratified the CWC in 2013 under pressure from the international community following the Ghouta chemical attack. The CWC requires the destruction of chemical weapons, and the Organization for the Prohibition of Chemical Weapons (OPCW) was responsible for monitoring Syria's destruction of the stockpile. Syria's declaration of chemical weapons was not exhaustive, and chemical attacks were still taking place, taking advantage of



loopholes in the CWC. Of particular concern was chlorine, which was allowed for use in industry, being used for military purposes, a loophole that Syria took advantage of to get around the rules (Makdisi, 2017).

International Humanitarian Law, which prohibits attacking civilians and employing indiscriminate weapons such as chemical agents, was also breached. Employment of chemical weapons in civilian populations breached the IHL principle of distinction, which forbids attacking civilians. The attacks were causing unnecessary suffering and were banned under the 1925 Geneva Protocol as well as the CWC. In addition, the Syrian government impeded humanitarian relief to victims of chemical attacks, infringing on the IHL norm of granting access to war victims. These breaches notwithstanding, efforts at enforcement were thwarted by political and military intricacies. The United Nations (UN) was key, especially via the UN Security Council (UNSC) and the UN General Assembly, which issued resolutions against the employment of chemical weapons. Significantly, following the 2013 Ghouta chemical attack, the UNSC issued calls for investigations, but Russia's veto repeatedly blocked action. The UN-OPCW Joint Investigative Mechanism (JIM), created in 2015, was to determine those responsible for chemical attacks. In 2016 and 2017, the JIM established that the Syrian government utilized chemical weapons, such as sarin gas. The UN Security Council was unable to act forcefully, with Russia exercising its veto to prevent the adoption of resolutions holding Syria responsible for its use of chemical weapons. This political impasse enabled Syria to continue employing chemical weapons with little penalty. Although the CWC and IHL established firm guidelines regarding the protection of civilians and a ban on chemical weapons, they were ineffective in enforcing such rules in Syria because of political interference and technical loopholes.

## **LEGAL FRAMEWORKS**

### **Chemical Weapons Convention and International Humanitarian Law**

The Chemical Weapons Convention (CWC) is a global treaty designed to destroy chemical weapons and ban their use. It was adopted in 1993 and came into force in 1997, banning the production, development, stockpiling, and use of chemical weapons. It further demands the destruction of current chemical weapon stockpiles (Das, 1993). The Organization for the Prohibition of Chemical Weapons (OPCW), created in 1997, enforces the CWC through inspections, verification of compliance, and the destruction of chemical weapons. International Humanitarian Law (IHL), especially the Geneva Conventions of 1949, regulates the waging of war and seeks to protect civilians and persons no longer taking part in hostilities, including wounded soldiers and prisoners of war. IHL forbids the employment of those weapons that inflict



excessive suffering, among them being chemical weapons, and requires the safeguarding of civilian infrastructure (Raicevic, 2001). The Chemical Weapons Convention (CWC), the Organization for the Prohibition of Chemical Weapons (OPCW) and International Humanitarian Law (IHL) are primary in taking care of the Syrian conflict. This is monitored by OPCW through adherence through inspections and support for destruction of chemical weapons. IHL, specifically the Geneva Conventions of 1949, regulate the conduct of war and provide protection to civilians, banning use of weapons capable of causing undue suffering, which includes chemical weapons. These codes are necessary for stopping the constant atrocities in Syria, as there has been an enormous civilian victimization and breakdown of international regulations. Even after Syria committed to destroying its chemical stockpiles in 2013, chemical agent attacks have persisted, pointing to the inability to strictly enforce these treaties. Disarmament through the CWC and OPCW can assist by holding people accountable and stopping the use of chemical weapons. Enhancing compliance with IHL would safeguard civilians and encourage compliance with international norms, lessening the humanitarian cost of the war. In order for such frameworks to work, international collaboration, political commitment, and effective enforcement systems are required to bring about a final settlement and disarmament in Syria.

### **Use of Chemical Weapons in Syria**

The deployment of chemical weapons in Syria rose to prominence as a global concern since chemical weapons inflict indiscriminate damage, particularly on civilians. The first serious case of using chemical weapons was in August 2013, when the Ghouta attack took place. The Syrian government is said to have deployed sarin gas, a lethal nerve agent, against opposition-held regions in Damascus. Hundreds of civilians, including women and children, were killed in the attack. This turned the tide in the war, with mass outcry and demands for intervention from outside, as the United States and Western nations threatened war, and Russia brokered a solution under which Syria acceded to the Chemical Weapons Convention (CWC) and undertook to destroy its chemical stockpile. The formal agreement to remove Syria's chemical weapons never halted attacks. In 2017, the chemical attack at Khan Shaykhun took place, where sarin was once more used, resulting in the deaths of over 80 individuals. Chlorine gas, permissible for civilian use in industry, was also being used militarily, taking advantage of a loophole within the CWC. These chemical attacks not only defied the international prohibition of chemical weapons but also broke the Geneva Conventions, which ban the use of weapons that result in excessive suffering and are used against civilians. The global community, through institutions such as the United Nations and the Organisation for the Prohibition of Chemical Weapons (OPCW), deplored these attacks, but its enforcement has been obstructed by political differences, particularly due to Russia's veto position



in the UN Security Council. In spite of this, chemical weapons were still deployed by the Syrian government, which poses challenges for implementing international norms in conflict areas.

## **CHEMICAL WEAPONS INVESTIGATION MECHANISMS IN SYRIA**

### **Challenge Inspection Mechanism under the CWC**

Article IX of the Chemical Weapons Convention (CWC) and Part XI of its Verification Annex provide the legal and procedural framework for carrying out fact-finding operations in cases where suspected non-compliance with the Convention may exist. According to the Convention, State Parties still have the sovereign prerogative to call for a challenge inspection to investigate purported violations within any area controlled by the jurisdiction of a fellow State Party. Yet such requests are amenable to review by the Executive Council of the Organisation for the Prohibition of Chemical Weapons (OPCW), which has the power to reject any request that it finds either unreasonable or falling outside the remit of the Convention. In spite of the existence of such a provision as a strong compliance tool, this remains unprecedented in reality. Interestingly, it was not applied even in the highly publicized Syrian case (Abe 2017). When the Syrian chemical weapon use allegations first arose towards the end of 2012, the country had not yet become a Party to the CWC. Accordingly, the OPCW did not have an inherent mandate to take investigative measures. However, the Convention does permit the OPCW to cooperate with the United Nations Secretary-General in cases of non-State Parties, making its technical and logistical resources available to the UN (OPCW 1993b). Upon receiving 16 such allegations in 2013, the United Nations Secretary-General initiated the Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons (UNSGM). This mechanism, though not intended to attribute blame, was charged only with confirming whether chemical weapons were used. The UNSGM, under UN chairmanship but with indispensable technical assistance from OPCW professionals, examined seven incidents. It determined that chemical weapons were used in five of them, and there was insufficient corroborating evidence in the other two (UNGA 2013a).

### **Evolution of OPCW's Investigative Authority: From Fact-Finding to Attribution**

After negotiations between the United States and Russia, Syria joined the CWC in September 2013 and then announced its chemical weapons arsenal for destruction. Still, reports of continued chemical weapons employment in 2014 re-emerged. As a response, exercising the general authority provided by the CWC, the OPCW Director-General deployed a Fact-Finding Mission (FFM). This effort was the establishment of the first ad hoc mechanism within the sole OPCW authority, tasked to determine the



facts relating to the suspected use of chemical weapons, but without an attribution role (OPCW 2015). The FFM was institutionally supported by both the OPCW Executive Council and the United Nations Security Council (UNSC) Resolution 2118. The FFM documented over 146 allegations over time, verified 71 of these, and released 20 official reports. Of them, 39 events were confirmed or highly likely to involve chemical weapons (OPCW 2023c). Acknowledging the inadequacies of fact-establishment by itself, the UNSC passed Resolution 2235 in 2015 to establish the UN-OPCW Joint Investigative Mechanism (JIM). The mechanism was developed to draw on the factual foundation of the FFM and, for the very first time, undertake attribution of responsibility. Although the CWC and the UNSGM allow for limited interpretive attribution, neither organization was explicitly mandated to assign responsibility for incidents in Syria. The JIM hence emerged as the first attributional mechanism with a well-defined attributional function. The JIM, between 2016 and 2017, examined nine of the 23 confirmed cases submitted by the FFM and issued seven reports. The reports attributed four incidents to the Syrian government (2014–2017) and two to the Islamic State of Iraq and Syria (ISIS) (Secretary-General 2017; 2016b; 2016d; 2016c). However, in 2017, the UNSC failed to renew JIM's mandate amid geopolitical disagreements, leading to the discontinuation of the joint mechanism.

### **Institutional Consolidation and the Attribution Norm: The Emergence of the IIT**

Following the termination of the JIM, the Conference of States Parties to the CWC held a special session in 2018 and mandated the OPCW Technical Secretariat to set up the Investigation and Identification Team (IIT). The IIT was established with a mandate to attribute perpetrators in situations where the FFM had determined that there had been use or imminent use of chemical weapons, but where the JIM had not made conclusive attribution (OPCW 2018a). The IIT, therefore, represented an extension of JIM's mandate, but under the exclusive authority of the OPCW and without UN direct involvement. Of 33 cases that were eligible, the IIT examined nine and assigned responsibility in five cases (OPCW 2020a; 2021; 2023a).

While working on differing mandates, FFM, JIM, and IIT mechanisms were, nevertheless, operationally and factually mutually interdependent. FFM's work became the core groundwork for both the JIM as well as IIT. JIM used information and facts aggregated by FFM to create an over-reliance, to create the "initial starting point" for the job of investigating further. Formal and informal interactions took place between the FFM and JIM leadership, strengthening institutional consistency (Secretary-General 2016a). Additionally, personnel overlap ensured continuity—most significantly, the UNSGM mission head acted as Senior Scientific Advisor to the JIM (Sellström, 2021). Conversely, the JIM established essential



foundations for the IIT's approach and scope, solidifying the development of an attribution norm within the chemical weapons disarmament regime. The OPCW took advantage of JIM's procedural precedents, such as in evidence collection and analytical frameworks. Parallel mechanisms like the Human Rights Council's Commission of Inquiry and the UN General Assembly-established International, Impartial and Independent Mechanism (IIIM) also dealt with chemical weapons use within wider investigations of human rights and international humanitarian law abuses. Notably, the IIT has been mandated to collaborate with the IIIM (OPCW 2018a, para. 12), thus posing difficult legal issues in respect of evidentiary requirements and relevant standards of proof.

## **GEOPOLITICAL OBSTACLES**

The Syrian Civil War has seen blatant breaches of international law with repeated chemical weapon use. In spite of worldwide outrage over the acts and the presence of strong legal regimes like the Chemical Weapons Convention (CWC), attempts at holding Syria to account have been foiled by geopolitics and the inability of the international community to ensure compliance effectively. The Assad government has greatly benefited from the political and military backing of its allies, especially Russia and Iran (Stahn 2014). Russia, as a permanent member of the United Nations Security Council (UNSC), has always used its veto capability to veto resolutions seeking to impose sanctions or undertake military interventions on Syria. For example, after the 2017 Khan Sheikhoun sarin attack, which murdered dozens of civilians, Russia vetoed a draft that aimed to provide for a mechanism to hold the Syrian regime accountable (Fitrah, 2022). Aside from diplomatic backing, Russia has offered direct military support, such as air protection for Syrian operations, allowing for chemical weapons usage to persist without severe ramifications. Iran has also been a key supporter of the Assad regime, though in different ways. Though not as explicit in covering up Syria's chemical weapons usage as Russia, Iran has offered diplomatic cover at international organizations and stood against pressures to push the Syrian government towards increased accountability. Iran's military and material assistance to Assad has also added to the problems of international enforcement agencies in making the CWC stick.

### **International Enforcement Failures in the Syria**

The CWC, which was created to ban the use and spread of chemical weapons, has encountered great enforcement difficulties in Syria. The Organisation for the Prohibition of Chemical Weapons (OPCW), which is in charge of the implementation of the CWC, has confirmed cases of Syrian use of chemical weapons, such as sarin and chlorine gas (Brooks, 2018). Despite such evidence, the OPCW's capacity to implement disarmament has been greatly diminished by continued violence and obstructionist policies of



Syria's supporters. In addition, loopholes in the law, like the authorized industrial use of chlorine, have been used by the Syrian government to avoid full responsibility under the CWC. The international reaction to Syria's use of chemical weapons has generally been disjointed and ineffective. Although some countries, including Israel, have acted unilaterally—e.g., by conducting airstrikes against suspected chemical weapons sites—to keep these weapons out of the hands of terrorists, such actions are questionable on both legal and effectiveness grounds. The absence of a common worldwide position has enabled Syria to maintain its chemical weapons program with little penalty. The Syrian situation underscores the convergence of geopolitical interests and the limitations of international legal regimes in conflict areas (Les, 2024). The failure to enforce compliance with the CWC and International Humanitarian Law (IHL) has not only encouraged the Assad regime but also eroded the credibility of global disarmament efforts. There needs to be a more concerted and resolute international effort, backed by strong enforcement measures, to meet these challenges and stop the continued use of chemical weapons in Syria and elsewhere.

## KEY FINDINGS

The Syrian war exposes the complex interplay among warfare, international law, and humanitarian emergencies, especially with regard to chemical weapons use. Academics such as Henckaerts and Doswald-Beck (2005) confirm the illegality of chemical weapons in customary IHL, yet Stahn (2014) argues that traditional approaches must be transformed to fit the complexities of contemporary conflict. In spite of efforts by OPCW in Syria, Hart and Trapp (2018) and Al Fitrah (2022) point to enforcement difficulties and demand structural changes within the Chemical Weapons Convention (CWC). Kelle (2021) and Trapp (2017) recommend moving away from verification to attribution mechanisms to increase accountability. Historical analogies, for example, the Iran-Iraq conflict (Supotnitskiy, 2019) and Agent Orange in Vietnam (Westing, 1980), highlight the long-term humanitarian and environmental implications of chemical warfare. Reports by Pita and Domingo (2014) and Hakeem and Jabri (2015) chronicle the poisonous health effects and environmental contamination in Syria. Comparative studies emphasize the need for interdisciplinary methods, as proposed by Brooks et al. (2018) and Rodriguez-Llanes et al. (2018). Geopolitical studies caution that compromising global governance imperils successful disarmament (Daoudi et al., 2013; Kellogg, 2023). Enhancing international legal structures, incorporating early warning mechanisms, and promoting regional collaboration are crucial to resolving Syria's chemical weapons crisis and promoting durable peace.

## METHODOLOGY



This research uses a qualitative, case study approach to critically examine the employment of chemical weapons in the Syrian Civil War and the challenges this poses to international law and peacebuilding. It is based mainly on secondary data sources, such as official reports by the Organisation for the Prohibition of Chemical Weapons (OPCW), United Nations investigative missions, academic journal articles, books, think tank reports, and media reports by reputable international organizations. The study employs a documentary analysis approach, using legal texts like the Chemical Weapons Convention (CWC), United Nations Security Council (UNSC) relevant resolutions, and case submissions to the International Criminal Court (ICC). Additionally, international legal frameworks and political discourses are examined critically against the backdrop of Realist Theory and Constructivist Theory. This two-pronged theoretical framework enables an in-depth examination of both the power-based (Realist) and norm-based (Constructivist) considerations underpinning chemical weapons disarmament and compliance. By combining a qualitative analytical framework with theoretical considerations, the research seeks to provide a sophisticated evaluation of the efficacy of international legal mechanisms and the wider implications for peacebuilding in post-conflict Syria.

## CONCLUSION

The Syrian civil conflict exposed principal vulnerabilities in the international community's ability to enforce the ban on chemical weapons. Though Syria acceded to the Chemical Weapons Convention (CWC) in 2013 and had its reported chemical weapons stock removed under UN and OPCW oversight, the persistence of such chemical attacks suggests that compliance was possibly incomplete. The charges of chlorine and sarin gas use in Khan Shaykhun (2017) and Douma (2018) confirm the existence of undeclared stockpiles that were hidden or new production activities continued clandestinely. These attacks demonstrate that disarmament agreements are necessary but only as effective as the modalities that implement them. UN and OPCW probes have established the use of chemical weapons in various instances, but blame has been politically contested. The United States and its friends always accuse the Syrian government of the attacks, while Russia exercised its veto within the UN Security Council to save Syria from worse sanctions. This political polarization has eroded the ability of the international community to act in concert, thereby eroding the global norm against the use of chemical weapons and providing encouragement to the players who might consider their use in future conflicts. Failure to achieve thorough-going disarmament and accountability in Syria points to systemic weaknesses in the CWC regime and the OPCW's operations. Although the OPCW has made significant progress in verification and investigation, it lacks a mandate to act unilaterally in triggering sanctions or issuing warnings without backing from the polity. Whenever there are allied powerful states, the enforcement



gets bogged down, as happens again and again in the Syrian context. This erodes confidence in the international legal order and lowers deterrence against using chemical weapons. Therefore, institutional reforms of a substantive kind are needed in the future to make international disarmament regimes more effective. Firstly, the OPCW must be given greater authority, e.g., authority to directly attribute responsibility for chemical attacks and recommend immediate punitive measures. Speeding up investigation procedures and improving access to suspected sites without political obstruction are essential to raise credibility and responsiveness as well. Secondly, an additional stronger independent system of monitoring, which will operate irrespective of political configurations within the UN Security Council, is essential. Institutional tools like an independent standing investigative agency for sanctions enforcement could provide an effective substitute if there is a political impasse. International consensus has to be strengthened beyond standard diplomatic channels. Regional groups, civil society groups, and autonomous forensic professionals must be enlisted programmatically to serve state-run channels. Building a robust, multipolar coalition for chemical disarmament can create sufficient pressure to isolate and deter violators even in the absence of Security Council consensus. The Syrian chemical weapons crisis has reaffirmed that disarmament is less about destroying stockpiles but about long-term compliance by effective, politically resilient institutions. Lacking serious reform and increased collective resolve, removal of chemical weapons from the Earth's surface will remain a goal and not a fact.

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