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STUDY GUIDE

**Organisation for the Prohibition of
Chemical Weapons**

Strengthening International Cooperation to Prevent the Re-
Emergence of Chemical Weapons and Secure Stockpiles



General Assembly

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Conference on the Establishment of a Middle East Zone Free of Nuclear Weapons and Other Weapons of Mass Destruction

Fifth session

New York, 18–22 November 2024

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, and the Organisation for the Prohibition of Chemical Weapons

Background document prepared by the Organisation for the Prohibition of Chemical Weapons

I. Introduction

1. On 22 December 2018, the General Assembly adopted decision 73/546 on convening a conference on the establishment of a Middle East zone free of nuclear weapons and other weapons of mass destruction, in which it entrusted to the Secretary-General the convening, no later than 2019, of a conference on that topic. It also requested the Secretary-General to convene annual sessions of the Conference. Following this mandate, the Secretary-General convened the first session in November 2019, with subsequent annual sessions held in 2020, 2021, 2022 and 2023.

2. In a correspondence dated 2 August 2024, the Permanent Mission of Mauritania to the United Nations, as the President-designate of the fifth session of the Conference, invited the Organisation for the Prohibition of Chemical Weapons (OPCW) to prepare a background document for the consideration of the Conference at its fifth session. The present document is hereby submitted following that request.

II. The Convention

3. The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction is an international treaty whose main object and purpose is to exclude completely the possibility of the use of chemical weapons. To that end, it establishes a global verification regime to monitor the destruction of declared chemical weapons stockpiles and prevent the re-emergence of chemical weapons, as well as to monitor the production, processing and

3 Interesting Facts

The Chemical Weapons Convention has 193 State Parties. One State (Israel) has signed but not ratified the Convention, while further three (Democratic People's Republic of Korea, Egypt, and South Sudan) have neither signed nor ratified - thus preventing complete universalisation of the CWC.

3 Definition

Under the CWC, chemical weapons are defined in three parts. It includes toxic chemicals and their precursors, except when used for purposes permitted by the Convention - in quantities consistent with such a purpose; any munitions or devices specifically designed to inflict harm or cause death through release of toxic chemicals; and any equipment specifically designed for use "directly in connection" with the employment of the munitions and devices identified as chemical weapons. Any chemical intended for chemical weapons purposes, regardless of whether it is specifically listed in the Convention or its Annexes (including the three schedules of chemicals), is considered a chemical weapon. A full legal definition is provided in Article II of the Chemical Weapons Convention.

3 Did You Know That

As of 31st August 2025, the world's declared chemical weapons stockpile totalled 72,304 metric tonnes.



consumption of **toxic chemicals for purposes not prohibited under the Convention**. The Convention contains provisions for international cooperation to support the peaceful and authorized uses of chemistry, as well as for assistance and protection against the use or threat of use of such weapons. The Convention entered into force on 29 April 1997.

4. The Convention establishes a global prohibition on chemical weapons through the verified elimination of all declared chemical weapons stockpiles and production facilities. All States parties to the Convention must never develop, produce, acquire, stockpile or use chemical weapons, or transfer them to other parties. They must destroy any chemical weapons that they own or possess or that they abandoned on the territory of another State party. Furthermore, they must destroy or convert facilities that they own or possess that were involved in the production of chemical weapons.
5. The global elimination of chemical weapons rests on two conditions: acceptance of the Convention by all States and compliance of all States parties with their obligations.

III. Work of the Organisation for the Prohibition of Chemical Weapons

6. OPCW is an independent international organization established in 1997 upon the entry into force of the Convention. Under the terms of the Convention, OPCW undertakes global activities that include inspecting and verifying the destruction of existing chemical weapons; conducting chemical industry inspections; providing assistance and protection to its member States in cases of the use of or the threat of the use of chemical weapons; and promoting international cooperation in the peaceful and authorized uses of chemistry.

IV. Verification regime

A. Overview of the verification regime

7. The Convention is underpinned by a robust and comprehensive verification regime. Verification is the process by which OPCW ensures that States parties are in compliance with their obligations according to the following procedures: assessing declarations made by States parties on a regular basis; conducting regular on-site inspections of declared military or industrial sites and/or facilities to verify the accuracy of submitted declarations; conducting challenge inspections upon request; and investigating the alleged use of chemical weapons. As part of the verification regime, OPCW has established a network of designated laboratories for the independent off-site analysis of environmental and biomedical samples. These laboratories take part in OPCW proficiency tests to maintain their designation status and thereby ensure their fitness for purpose.
8. The Annex on Chemicals to the Convention contains the three schedules of chemicals, based on the following criteria:
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3

Definition

Toxic Chemical means any chemical which through its chemical action on life processes can cause death, temporary incapacitation, or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or of their method of production, and regardless of whether they are produced in facilities, in munitions or elsewhere. A full legal definition is provided in Article II of the Chemical Weapons Convention.

3

Definition

It means industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes; Protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons; Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; and Law enforcement including domestic riot control purposes.

3

Interesting Facts

These important provisions, as outlined in Article XI of the Chemical Weapons Convention, encourage State Parties for international cooperation in the field of chemical activities for purposes not prohibited under this convention - including promotion of free trade in chemicals for production, processing and use for purposes not prohibited under this Convention as outlined in Article II, and the open exchange of scientific information and technical knowledge about the peaceful applications of chemistry. The OPCW Secretariat runs several capacity building programmes like the Fellowship Programme that provides scientists and engineers, primarily from developing countries, with funding to work for fixed periods at research institutions in industrialised countries and the Associates Programme that invites scientists, chemical engineers, and technological specialists from Member States whose economies are developing or in transition to take part in a project that enhances their knowledge of the Chemical Weapons Convention and develops their skills to operate in a modern chemistry environment. The overall aim of these programmes is to support the implementation of the Convention's requirements for peaceful, legal and secure uses of chemistry.

3

Interesting Facts

Article X of the Chemical Weapons Convention provides for assistance and protection against chemical weapons. For the purposes of the Article, "Assistance" means the coordination and delivery to States Parties of protection against chemical weapons.

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4 Something to Think About

How can OPCW work together with State parties in ensuring that the general prohibition of chemical weapons under CWC Article I is upheld, while also promoting and facilitating peaceful exchange of knowledge and trade of chemicals to strengthen the economical and technological development of States under CWC Article XI?

4 Interesting Facts

The OPCW confirmed that the last chemical weapon stockpile was destroyed on 7 July 2023 at the Blue Grass Chemical Agent-Destruction Pilot Plant in Kentucky. The weapon was an M55 rocket filled with approximately 4.5 kg of sarin nerve agent.

5 Something to Think About

How do disagreements over compliance, enforcement, and the attribution of chemical weapons use (i.e., scientifically linking a chemical weapon to its source) reflect broader conflicts between major powers? How have these frictions affected membership in the Executive Council, undermined the authority of the OPCW and eroded multilateralism?

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5 Interesting Facts

The CWC established the Organization for the Prohibition of Chemical Weapons (OPCW), which includes the Executive Council and the Conference, to oversee and verify compliance. Compliance management mechanisms are the ways the OPCW helps countries follow the Chemical Weapons Convention. A range of measures, including inspections under Article IX, serve as fact-finding tools to determine potential non-compliance before the Article XII enforcement mechanisms are invoked.

Article IX provides the framework for initiating a clarification request. The situation in Syria, for example, led to a clarification request when the OPCW Secretariat identified significant gaps and omissions in Syria's declared chemical weapons program. Article IX details how a State Party can formally raise a concern about another's non-compliance, how the Executive Council forwards the request, and the steps to be taken if the clarification is deemed inadequate. It also covers the right of a State Party to request a challenge inspection which is a surprise inspection of any facility in a Member State, requested by another state, to investigate suspicions of non-compliance with the treaty.

While Article IX is meant to clarify ambiguous situations, Article XII is the ultimate enforcement mechanism for non-compliance. It provides a system of graduated responses that can be taken by the Conference of the States Parties (Conference) based on information and recommendations from the Executive Council. When there are concerns about a country's compliance, the governing Executive Council begins a formal, multi-step process. The first and least severe step is for the Council to ask the "State Party" to fix the issue on its own. Other mechanisms include:

- Recommending collective measures, like diplomatic or economic sanctions for violations that cause "serious damage" to the Convention.
- Restricting or suspending a State Party's rights and privileges under the Convention, such as voting rights, if non-compliance is not corrected.
- Referring non-compliance issues of "particular gravity," to the United Nations General Assembly and Security Council.

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6 Interesting Facts

The OPCW is an autonomous organization with independent leadership, legal personality, and separate budget. It also has a working relationship with the United Nations pursuant to a relationship agreement under Article VII paragraph 34 (a) of the CWC - which was concluded in 2000 and entered into force in 2001 - that makes it a related organization of the UN System.

The **Relationship Agreement** was approved by the OPCW Conference of the States Parties in decision **C-VIDE/5** dated 17 May 2001 and by the United Nations General Assembly in resolution **A/RES/55/283** dated 24 September 2001.

6 Did You Know That

In 2024, the budget for OPCW was 680,490,221.

Member States contribute a percentage of the OPCW budget through an annual assessed contribution based on its Gross National Income (GNI). Additional voluntary contributions may be made by Member States and others to various OPCW Trust Funds for specific projects.

The OPCW's Director-General prepares the budget proposal after considering Secretariat and Budget Steering Committee input, then submits it to the Executive Council, which then reviews and transmits it to the Conference of the States Parties for approval. The Conference of the States Parties makes the final decision on the budget.

7 Something to Think About

Are current verification mechanisms robust enough to detect covert chemical weapons activities in States Parties with poor transparency records?

7 Did You Know That

When countries (States Parties) joined the CWC, they were required to declare all facilities that had ever produced chemical weapons. A total of 97 production facilities were officially reported by all States Parties combined since the Convention entered into force in 1997. Under CWC rules, declared CW production facilities must either be physically destroyed or permanently converted for peaceful industrial or research purposes under strict verification. Out of the 97 facilities that have been declared, 74 facilities have been completely destroyed and 23 sites were approved by the OPCW for conversion and remain under ongoing verification to ensure they are not misused. Although most facilities have been destroyed or converted, two sites in two States still exist that can be inspected by the OPCW to verify compliance. The "remaining inspectable" facilities are not included among those 97 because they were not declared (or fully declared) by the State Party under the Convention, and thus lie outside the official declared count of 97. To date, the OPCW has conducted 525 inspections at declared or converted CWPs to verify destruction, conversion, and non-reversion to weapons-related activities.

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Did You Know That

As of 31st August 2025, there are 29 designated labs for environmental samples in 24 State parties, and 19 for biomedical samples in 14 State parties. An example of an environmental sample an OPCW designated lab would authenticate is a soil sample collected from a site where chemical weapons were allegedly used. The soil would be analyzed for the presence of chemical warfare agents. An example of a biomedical sample might involve a blood sample from the victim of a nerve agent poisoning. The lab would analyze the sample for specific markers, or "adducts," that form when the nerve agent binds with proteins in the blood.

7

Interesting Facts

A laboratory must participate in proficiency testing at least once per calendar year unless additional guidelines under **EC-DEC 4** are applicable. A rating of three "As", or two "As" and one "B", on the three most recent consecutive tests of a laboratory shall be regarded as constituting a successful performance. If a designated lab performs unsuccessfully, it may be temporarily suspended, but retain designated status, or it may have its designated status withdrawn, according to the guidelines in **EC-DEC 3** - when this happens, the lab will no longer be selected by the Director General to receive and analyse authentic samples from the OPCW. However, it may perform other tasks, as set out in **EC-DEC 67**.

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8 Interesting Facts

The Annex on Chemicals is divided into two parts - Part A contains guidelines for inclusion in the schedules, and Part B contains the three schedules. Each Schedule contains two parts as well, with Part A listing toxic chemicals that can be directly used as chemical weapons, and Part B listing their precursors. The Schedules are arranged from 1 to 3 in decreasing order of risks, with Schedule 1 chemicals having highest risks and Schedule 3 Chemicals having the lowest of the lot. For the purposes of the Convention, these schedules identify chemicals for the application of verification measures according to the provisions of the Verification Annex.

3 Definition

"Three schedules of chemicals" refers to the three lists of chemicals regulated by the Chemical Weapons Convention to prevent the development, production, and use of chemical weapons. The schedules are based on the risk a chemical poses to being weaponized. Schedule 1 chemicals pose the highest risk, followed by Schedule 2, and then Schedule 3. These chemicals are controlled through varying levels of verification and reporting requirements for Member States. Schedule 3 chemicals include what are called "dual-use chemicals" that have legitimate peaceful uses but that may also be used in illegal production of chemical weapons. Phosphorus trichloride is an example of a dual use chemical because it can be used to produce lubricants and pesticides, as well as the nerve agent VX.

- (b) Schedule 2: Chemicals that can be used for chemical weapons production,
 - (i) but have certain legitimate uses;
 - (ii) Not produced in large commercial quantities;
- (c) Schedule 3:
 - (i) Chemicals that can be used for chemical weapons production, but have significant legitimate uses;
 - (ii) Produced in large commercial quantities.

There are comprehensive guidelines that provide a process for inclusion of new generations of chemicals in the schedule list.

B. Chemical weapons demilitarization

9. Central to the implementation of the Convention is the verified destruction of declared chemical weapons stockpiles, including the destruction or conversion of chemical weapons production facilities.
10. The Convention contains regulations for the destruction of chemical weapons, including an **obligation not to harm people or the environment**. Accordingly, possessor States parties are required to use safe **methods and technologies** for destroying chemical weapons. OPCW continuously monitors and verifies the destruction of such weapons.
11. As at the end of August 2024, 100 per cent, or 72,304 tons, of **chemical weapons declared by States parties had been destroyed**. On 7 July 2023, OPCW confirmed that the United States of America, the last declared possessor State party, had completed the destruction of 100 per cent of its chemical weapon stockpiles.¹
12. Since the entry into force of the Convention, 97 chemical weapons production facilities have been declared by 14 States parties. As at the end of 2023, all declared chemical weapons production facilities had been destroyed or converted to use for peaceful purposes. Of those, 74 had been destroyed by 13 States parties and 23 had been converted to use for peaceful purposes by 5 States parties. **OPCW regularly inspects former chemical weapons production facilities that remain subject to verification, to further ensure compliance with the Convention.**
13. States parties must also declare and undertake to destroy old and abandoned chemical weapons. OPCW monitors such destruction activities.
14. As at the end of August 2024, OPCW had conducted 3,490 chemical weapons inspections since the entry into force of the Convention.

C. Industry verification

15. The basis for the OPCW industry verification regime is established in article VI of the Convention. States parties are obliged to identify and declare specific activities

¹ States parties must declare all chemical weapons stockpiles, which are broken down into three categories for the purpose of destruction. They are: category 1, chemical weapons on the basis of schedule 1 chemicals and their parts and components; category 2, chemical weapons on the basis of all other chemicals and their parts and components; and category 3, unfilled munitions and devices, and equipment specifically designed for use directly in connection with employment of chemical weapons.

10 Interesting Facts

State parties should have declared national standards that adhere to international safety and emissions regulations, as part of the submitted general plan for destruction, which should expectedly contribute to the implementation of its obligation to safeguard the neighbouring populace, the inspection personnel, and the environment during any operations involving chemical weapons. For instance, sea dumping, land burial and open-pit burning are prohibited methods of chemical weapons destruction.

10 Interesting Facts

A State party can select and implement the appropriate destruction technologies for its chemical weapons. These technologies have been divided into two main groups - high temperature destruction technologies like plasma pyrolysis, incineration and explosion chambers, with the associated off-gas treatment system; and low-temperature ones like neutralisation and hydrolysis, followed by secondary treatments of the generated by-products, prior to final disposal in accordance with national regulatory provisions. Unfilled munitions and other devices can simply be cut apart.

11 Something to Think About

What are the risks of a country rebuilding its chemical weapons supply after it has been destroyed? What should be OPCW's role in monitoring post-demilitarization environments to prevent this from happening?

How can the OPCW ensure that declared stockpiles have been fully eliminated and not simply relocated, concealed or repurposed?

12 Something to Think About

Are current timelines and verification benchmarks for demilitarisation still feasible and realistic, especially in conflict or post-conflict zones?

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13 Definition

Part IV (B) of the Verification Annex provides the specific definitions and procedures related to different types of buried weapons:

- Old chemical weapons fall into two categories: those produced before 1925, and those produced between 1925 and 1946 "that have deteriorated to such an extent that they can no longer be used as chemical weapons."

Abandoned chemical weapons, on the other hand, are chemical weapons abandoned by a State after 1 January 1925 on the territory of another State without that country's consent.

13 Did You Know That

As of 31st August 2024, 11 inspectable facilities/sites of old chemical weapons spread across 9 states have been subject to 181 inspections; similarly 173 inspections have been conducted in 13 inspectable facilities/sites of abandoned chemical weapons spread across 2 states.

13 Did You Know That

Fishing vessels in the Baltic Sea frequently haul up old chemical munitions in their nets. The discovery of these munitions is often accidental, and the responsibility for their disposal falls on the nations that recover them.

13 Did You Know That

Article III, Article IV, and Part IV (B) of the Verification Annex of the Chemical Weapons Convention (CWC) define the obligations of States Parties regarding the declaration and destruction of buried chemical weapons, which are categorized as "old chemical weapons" or "abandoned chemical weapons".

Under Article III, States Parties are required to declare any chemical weapons they possess, including "old and/or abandoned chemical weapons". In addition, a country that abandoned chemical weapons on the territory of another State Party is also required to provide all available information to the OPCW.

Article IV of the CWC addresses the destruction of chemical weapons and contains a key provision for buried weapons. The requirements to destroy these old weapons do not apply if they were buried before January 1, 1977 and they remain buried. However, if a country decides to recover these materials, they then become subject to the CWC's destruction requirements. While the CWC seeks to eliminate all chemical weapons, it distinguishes between active stockpiles and historic, buried caches, and provides specific rules and optional exemptions for the latter.

and facilities in which scheduled chemicals are involved to ensure that they are used exclusively for purposes not prohibited under the Convention.

16. States parties are prohibited from trading schedule 1 and schedule 2 chemicals with countries that are not party to the Convention. Monitoring the **international trade and transfer of all scheduled chemicals** declared by States parties is an essential part of the efforts of OPCW to prevent the re-emergence of chemical weapons.
17. **Other chemical production facilities**, which are facilities that may be capable of manufacturing chemical weapons-related materials, are also subject to verification under article VI.
18. As at the end of August 2024, the Technical Secretariat had conducted 4,693 industry inspections in more than 80 States parties since the entry into force of the Convention.

D. Challenge inspections

19. As a means to resolve a serious concern about compliance, any State party can call for a short-notice inspection in any other State party. **The challenge inspection** can be conducted without the right of refusal, unless a three-quarters majority of the OPCW Executive Council decides against the request.
20. While no State party has yet requested a challenge inspection, OPCW carries out challenge inspection exercises for training and preparedness purposes.

E. Investigations of alleged use of chemical weapons

21. The use of chemical weapons constitutes a grave breach of the Convention and of international law. Accordingly, the Convention contains provisions that allow OPCW to conduct investigations of alleged use of chemical weapons. In a scenario involving the alleged use of chemical weapons by a State not party to the Convention or in a territory controlled by such a State, an investigation can be requested through the Secretary-General's Mechanism for Investigation of Alleged Use of Chemical and Biological Weapons, established through General Assembly resolution 42/37 C. In such a case, OPCW can put its resources at the disposal of the Secretary-General.

V. Role of the Convention in regional peace and security

A. Universality

22. As at the end of August 2024, there were four States not party to the Convention: one was a signatory (Israel), and three were non-signatories (Democratic People's Republic of Korea, Egypt and South Sudan).
23. Universality underpins the full and global implementation of the Convention. Only through universal adherence can there be an assurance that all countries are legally bound to uphold the prohibitions on chemical weapons.
24. OPCW therefore places a high priority on achieving the universality of the Convention. As such, OPCW maintains contact with representatives of States not party to the Convention in order to create awareness and sustain a positive dialogue on the importance of joining the Convention.

16 Interesting Facts

Schedule 1 and Schedule 2 chemicals may only be transferred between State parties to the Convention. Schedule 3 chemicals may only be traded with non-State parties if the recipient provides an end-use certificate and pledges not to transfer them onward. All international transfers must, nonetheless, be declared to the OPCW Technical Secretariat.

17 Definition

Other Chemical Production Facilities (OCPF) are chemical industrial units under the Chemical Weapons Convention (CWC) that produce unscheduled organic chemicals — either Discrete Organic Chemicals (DOCs), a broad class of carbon-based compounds, excluding only carbon oxides, sulfides, and metal carbonates or Discrete Organic Chemicals, a subset subset of DOCs that contain one or more of the elements Phosphorus, Sulfur, or Fluorine (PSF chemicals) — and are subject to OPCW inspection because they can be repurposed to make chemical weapons or other highly toxic chemicals.

Unscheduled Discrete Organic Chemicals (UDOCs) includes dual-use organic chemicals that are not specifically listed on any of the three schedules. Facilities must declare these chemicals if more than 200 metric tons are produced per year. There is a lower 30 metric ton threshold for UDOCs containing phosphorus, sulfur, or fluorine (PSF).

19 Interesting Facts

An innovative feature under Article IX of the Convention, challenge inspections allow OPCW inspectors to visit any site, at any time, and with little notice if there are serious concerns about possible chemical weapons activity. Inspections can take place at both declared and undeclared sites in any country that has joined the Convention. The detailed rules for carrying out these inspections are set out in Part X of the Verification Annex. Before asking for a challenge inspection, countries are encouraged—but not required—to try to resolve their concerns directly through discussion or by asking for help from the OPCW.

Although this system has existed since the Convention entered into force, no State Party has ever requested a challenge inspection.

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21 Interesting Facts

Part XI of the Verification Annex contains procedural provisions to conduct such investigations. This Part establishes an urgent, event-driven procedure for investigating claims of chemical weapons use. An investigation under Part XI is initiated by a formal request from a State Party alleging the use of chemical weapons on its own territory which would give rise to a rapid deployment of OPCW inspectors. Routine verification inspections that focus on specific, declared facilities would be covered by Parts VI-IX.

21 Definition

The UN Secretary-General's Mechanism (UNSGM) was formally established by the UN General Assembly in 1987, one decade before the establishment of the OPCW, though its origins date back to investigations conducted in the early 1980s when it engaged in ad-hoc investigations into allegations of chemical and toxin weapon use in Southeast Asia and Afghanistan and investigations conducted in response to Iran's requests to confirm Iraq's repeated use of chemical weapons. These missions highlighted the need for a more robust and established international mechanism which led to the establishment of the UNSGM. Although now a permanent body, it does not have a full-time staff, its own budget, or dedicated investigative teams. Any UN Member State can request the Secretary-General to initiate an investigation into the possible use of chemical weapons. The Secretary-General has the authority to send a fact-finding mission to the location of the alleged incident. Mission teams are assembled from the UNSGM roster, which is maintained by the UN Office for Disarmament Affairs (UNODA). The roster consists of experts, consultants, and analytical laboratories nominated by Member States. The UNSGM is used for chemical weapons allegations in states that are not party to the Chemical Weapons Convention. It is also the only international tool for investigating allegations involving biological weapons. When an investigation is conducted under the UNSGM framework,

7 Did You Know That

98% of the global population live under the protection of the Convention

B. Countering chemical terrorism

25. The contribution of OPCW to global anti-terrorism efforts is enshrined in several articles of the Convention. It is also based on the decision adopted by the OPCW Executive Council at its twenty-seventh session on the OPCW contribution to global anti-terrorist efforts, namely, that the full and effective implementation of all provisions of the Convention is in itself a contribution to global anti-terrorist efforts (decision EC-XXVII/DEC.5 of 7 December 2001, para. 1).
26. In its decision on addressing the threat posed by the use of chemical weapons by non-State actors (EC-86/DEC.9 of 13 October 2017), the Council underscored that the development, production, acquisition, possession, stockpiling, retention, transfer and use of chemical weapons by non-State actors posed a fundamental threat to the object and purpose of the Convention and to the achievement of a world free of chemical weapons, and that any actor who engaged in or attempted to engage in such activities **must be held accountable**.
27. In working to counter the threat of chemical terrorism, the Technical Secretariat seeks to support its member States in realizing the full and effective implementation of the Convention while also ensuring that it coordinates its efforts, both in prevention and response, with other relevant stakeholders in the international system.
28. As part of its commitment to international coordination, OPCW is a signatory to the **United Nations Global Counter-Terrorism Coordination Compact**. OPCW is also a Vice-Chair, together with the United Nations Interregional Crime and Justice Research Institute and the Office for Disarmament Affairs, of a Compact working group on emerging threats and critical infrastructure protection, which is chaired by the International Criminal Police Organization (INTERPOL). Under this framework, in 2023 OPCW completed the implementation of a project entitled "Ensuring effective inter-agency interoperability and coordinated communication in case of chemical and/or biological attacks – phase III".
29. Recognizing that the Convention and Security Council resolution 1540 (2004) are mutually reinforcing in a number of areas, such as national legislation, chemical security and **customs and border control**, OPCW maintains long-standing cooperation with the Security Council Committee established pursuant to resolution 1540 (2004) and its Expert Group. The Technical Secretariat contributed to the recent comprehensive review of resolution 1540 (2004), which concluded in 2022 with the renewal of the Committee's mandate. In addition, the Technical Secretariat's experts participate in selected capacity-building activities related to resolution 1540 (2004), as well as evaluate and respond to requests for assistance by States parties, which are being transmitted in the framework of the Committee's matchmaking mechanism. The Technical Secretariat coordinates with the Committee and its Group of Experts as well as with the Implementation Support Unit of the Office for Disarmament Affairs to build synergies in support of the implementation of States parties' obligations under the Convention and resolution 1540 (2004), respectively.

C. Regional capacity-building and assistance and protection

30. Under the Convention, the Technical Secretariat provides technical assistance through a wide range of capacity-building programmes which facilitate the development of **national implementing legislation**, enhance the capacity of States parties to use chemistry for peaceful purposes and assist States parties in preparing for and responding to threats involving toxic chemicals.

26 Interesting Facts

Article VII, paragraph 1(a) requires each State Party to "adopt the necessary measures to implement its obligations under this Convention". This includes enacting penal legislation to prohibit individuals and corporations from engaging in any prohibited activity, such as developing, producing, or using chemical weapons. To ensure that perpetrators are brought to justice, Article VII, paragraph 2 requires states to "cooperate with other States Parties and afford the appropriate form of legal assistance to facilitate the implementation of the obligations".

Two concrete examples of the use of Article VII include the landmark U.S. Supreme Court case *Bond v. United States* and prosecutions in Germany related to an attempted ricin attack. Both governments have domestic laws in compliance with the CWC that allow private citizens to be prosecuted for the misuse of toxic chemicals. The prosecution of a married couple in Germany for plotting the ricin attack happened as a result of a tip received from another foreign government which is a good example of the cooperation and legal assistance required under Article VII, paragraph 2, to facilitate enforcement of the convention.

28 Definition

It is a coordination framework to strengthen a common UN action approach to support member states, at their request, in the balanced implementation of the United Nations Global Counter-terrorism Strategy, and other relevant UN resolutions and mandates.

29 Interesting Facts

In 2017, the OPCW and the World Customs Organization (WCO) signed a Memorandum of Understanding that further enhances cooperation between the two organizations to tighten national and international controls on the trade of toxic chemicals.

30 Did You Know That

Every States Party is required under Article VII of the Chemical Weapons Convention to adopt the "necessary measures" to legally implement the provisions of the Convention at national level, and such measures must be duly informed to OPCW. States are also required to have specific measures such as passing laws to criminalise certain prohibited conduct, and to designate or establish a National Authority to serve as national focal point for effective liaisoning with OPCW and other State parties.

31. The Technical Secretariat provides tailored assistance and capacity-building support to aid States parties in the development and adoption of national legislation to fulfil their obligations under the Convention. Several States parties from the Middle East region have participated in the **OPCW internship programme for legal drafters and national authority representatives** with the aim of producing draft bills that cover the **initial measures** required by the Convention. The Technical Secretariat has also organized national legal workshops in response to requests for assistance from Iraq (2018) and the Syrian Arab Republic (2019). Furthermore, the Technical Secretariat has organized general courses on the Convention attended by 23 representatives from the Middle East since 2017;² courses on declaration and inspection obligations attended by 22 representatives from the Middle East since 2017;³ and a mentorship and partnership programme in which four Middle Eastern States parties participated, either as mentors or mentees, since 2012.⁴

32. The Convention commits OPCW to promoting the peaceful uses of chemistry for the purposes of economic and technological development. The OPCW programmes and activities are focused on integrated chemical management, the enhancement of analytical skills to analyse Convention-related substances and the promotion and exchange of knowledge in the field of chemistry. Since 2017, more than 300 participants from the Middle East region have attended OPCW events aimed at promoting international cooperation in the peaceful and authorized uses of chemistry.

33. The Technical Secretariat also assists States parties in capacity-building to prepare for and respond to the use of chemical weapons. Capacity-building activities include international and regional training; specialized training in subjects such as sampling and analysis, laboratory skills, medical and pre-hospital treatment and hospital preparedness; and courses for first responders. Since 2015, the Technical Secretariat has conducted a capacity-building programme for States parties in the Middle East to enhance regional capabilities to respond to incidents involving chemical warfare agents and toxic chemicals. Since 2015, these capacity-building programmes have had more than 500 participants from the Middle East region, including first responders and other experts from national institutions involved in chemical emergency response.

34. The increasingly demanding security environment, including the growing threat of the use of chemical weapons by non-State actors, has underlined the importance of programmes in the area of assistance and protection, as well as the interest of States parties in such programmes. Accordingly, States parties are permitted to develop national protection programmes against chemical weapons and the Convention ensures that they can receive assistance, if they require it, to build their national capacity to respond to the use of chemical weapons. OPCW provides specific programmes in this area, including on detection, protective and decontamination equipment, training on medical assistance and treatment, and advice on protective measures. In May 2023 OPCW inaugurated its new Centre for Chemistry and Technology, in the presence of King Willem-Alexander of the Kingdom of the Netherlands. This facility, which replaced the OPCW Laboratory and Equipment Store, significantly enhances the OPCW operational and capacity-building capabilities. It is an additional tool for integrating all of the different OPCW tasks and provides opportunities to increase synergies for knowledge-sharing, scientific and technical cooperation, and

31 Did You Know That

From 2012-2018, 45 countries have taken part in this one-week legal workshop, with all participants successfully producing comprehensive drafts of national implementing legislation. Of these, four States Parties subsequently enacted legislation complying with all initial measures required under the Convention. While drafting legislation is a technical output of the program, the path from a draft document to an enacted law can be lengthy and complex in many countries and often requires navigating a complicated, multi-step process that can be slowed down by political maneuvering and competing agendas.

31 Definition

These are the minimum set of legislative measures deemed necessary for a non-possessor CWC State Party. These may include legal and administrative measures that require submission of annual declarations, and establish a domestic legal framework and National Authority to monitor implementation.

31 Did You Know That

"Initial measures" are a minimum set of measures that countries must enact to fulfill their obligations under the Chemical Weapons Convention (CWC). This is especially critical for State Parties that do not possess chemical weapons and have no chemical production facilities that need to be declared. The key components of "initial measures" legislation include:

- Establishing clear, domestic legal definitions of terms used in the CWC, as specified in Article II of the Convention.
- Designating or establishing a national authority to serve as the main point of contact for the OPCW and oversee national implementation.
- Creating rules and regulations to monitor, verify, and restrict chemicals that could be used to produce chemical weapons and reporting on the transfer (import and export) of these scheduled chemicals.
- Prohibiting activities such as developing, producing, or stockpiling chemical weapons that are forbidden under the CWC.
- Specifying penalties for violations of the national law, which are meant to deter individuals and entities from engaging in prohibited activities.

As at 31 December 2024, of the 193 States Parties to the Convention, 164 had reported the adoption of national implementing legislation, of which 128 had legislation covering all the initial measures. A total of 36 States Parties had reported legislation covering some of the initial measures. The remaining 29 States Parties had yet to report on the adoption of implementing legislation.

² Bahrain (1), Iran (Islamic Republic of) (1), Iraq (3), Jordan (4), Oman (2), Qatar (3), Saudi

Arabia (1), Syrian Arab Republic (1), Turkey (6) and United Arab Emirates (1).

³ Iran (Islamic Republic of) (9), Iraq (2), Qatar (4), Saudi Arabia (2), State of Palestine (3) and Turkey (2).

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² Bahrain (1), Iran (Islamic Republic of) (1), Iraq (3), Jordan (4), Oman (2), Qatar (3), Saudi Arabia (1), Syrian Arab Republic (1), Türkiye (6) and United Arab Emirates (1).

³ Iran (Islamic Republic of) (9), Iraq (2), Qatar (4), Saudi Arabia (2), State of Palestine (3) and Türkiye (2).

⁴ Lebanon (2024), Islamic Republic of Iran (2015), Syrian Arab Republic (2015) and Yemen (2013).

33 Definition

Chemical Warfare agents are extremely toxic synthetic chemicals used to cause intentional death or harm to plants, animals or humans through their toxic properties. These agents may be widely dispersed in liquid, aerosol or solid form, or as agents absorbed to particles to become powder, and thereby may easily afflict others than the intended target. Thousands of toxic substances are known, but only some of them are known as Chemical Warfare agents based on their characteristics, viz., high toxicity, imperceptibility to senses and rapidity of action after dissemination and persistency, and are listed as Scheduled Chemicals in the Chemical Weapons Convention.

33 Interesting Facts

Classified according to their physiological effects, agents effective against humans include nerve agents, blistering agents (vesicants), blood agents, choking agents and toxins.

capacity-building. The Centre was funded entirely through voluntary contributions from member States, the European Union and other donors.

D. Regional activities

Syrian Arab Republic

Destruction of chemical weapons

36. On 14 September 2013, the Syrian Arab Republic became a State party to the Convention. The Joint Mission of the Organisation for the Prohibition of Chemical Weapons and the United Nations for the Elimination of the Chemical Weapons Programme of the Syrian Arab Republic was established on 16 October 2013 to oversee the elimination of the Syrian chemical weapons programme. More than 1,300 tons of declared chemical agents were removed and destroyed during the operation. The complete destruction of the chemical weapons declared by the Syrian Arab Republic was verified by the Technical Secretariat on 6 January 2016.

Declaration Assessment Team

37. In April 2014, the Director General of OPCW established the Declaration Assessment Team with the mandate to verify that the declaration submitted by the Syrian Arab Republic can be considered accurate and complete, as required by the Convention and OPCW Executive Council decision EC-M-33/DEC.1.
38. Since April 2014, the Declaration Assessment Team has been engaged in consultations with Syrian authorities. To date, 27 rounds of consultations have been conducted, including technical meetings; interviews with persons involved in the chemical weapons programme; visits to chemical weapons-related sites involving the collection and analysis of samples; and the receipt, review, evaluation and analysis of documents and information.
39. In addition to the rounds of consultations, the Technical Secretariat deployed a reduced team from the Declaration Assessment Team to the Syrian Arab Republic twice in 2023, due to, inter alia, the country's refusal to grant entry visas to all members of the Declaration Assessment Team until October 2023. These deployments were to conduct limited in-country activities, which did not include technical consultations between the Declaration Assessment Team and the Syrian National Authority.
40. As a result of the work of the Declaration Assessment Team, the Syrian Arab Republic has submitted 20 amendments to its initial declaration, declaring additional previously undeclared elements of its chemical weapons programme. The Team raised and reported a total of 26 outstanding issues. The last two outstanding issues were opened in July 2024 as a result of the country's failure to sufficiently explain the presence of undeclared chemical warfare agents or their indicators in the samples collected by the Team in September 2020 and in April 2023, which suggest potentially undeclared full-scale development and production of chemical weapons at two formally declared chemical weapons-related sites. So far, 7 issues have been resolved while 19 remain open. The substance of outstanding issues is of serious concern to the Technical Secretariat, as it involves large quantities of chemical weapons that cannot be verified by the Technical Secretariat.
41. The Technical Secretariat will continue to engage with the Syrian National Authority regarding the 19 outstanding issues as well as regarding other declaration requirements arising from the recent decisions of the OPCW policymaking organs, as part of the process of verifying the fulfilment by the Syrian Arab Republic of its

declaration obligations under the Convention, relevant decisions of the OPCW policymaking organs, and Security Council resolutions.

Fact-finding mission

42. In response to persistent allegations of chemical weapons use in the Syrian Arab Republic, the OPCW fact-finding mission in the Syrian Arab Republic was set up in April 2014 to establish facts surrounding allegations of the use of toxic chemicals for hostile purposes in that country.
43. Under its agreed terms of reference between the Technical Secretariat and the Syrian Arab Republic, the fact-finding mission has conducted visits to sites of alleged use of chemical weapons, where possible, and has interviewed witnesses, alleged victims, first responders and treating physicians. The mission has also examined relevant documents and reports, including medical and hospital records, and obtained copies of such documents. In addition, environmental and biomedical samples have been collected and independently analysed by the OPCW network of designated laboratories.
44. During the reporting period, the Technical Secretariat issued two notes related to the activities of the fact-finding mission on three allegations, namely: in Al-Yarmouk, Damascus, on 22 October 2017; in Qalib al-Thawr, Al-Salamiyah, on 9 August 2017; and in Al-Balil, Souran, on 8 November 2017. For the three allegations, the information obtained and analysed as a whole, in accordance with the mission's mandate to gather facts relevant to the alleged use of toxic chemicals as a weapon in the Syrian Arab Republic, was not sufficient to provide reasonable grounds for the mission to determine that toxic chemicals were used as a weapon.
45. Since its creation, the fact-finding mission has been deployed on 68 missions⁵ and has issued 22 reports covering 76 allegations. Through its reports, the fact-finding mission has identified a total of 20 incidents involving the likely or confirmed use of chemical weapons: 14 of chlorine, 3 of sulfur mustard and 3 of sarin. Organisation for the Prohibition of Chemical Weapons-United Nations Joint Investigative Mechanism
46. Following the findings of the fact-finding mission that chlorine had been used as a weapon in the Syrian Arab Republic, in March 2015 the Security Council adopted resolution 2209 (2015), in which it condemned any use of any toxic chemical as a weapon in the Syrian Arab Republic. Recalling that resolution, on 7 August 2015 the Council adopted resolution 2235 (2015) establishing the OPCW-United Nations Joint Investigative Mechanism. The Mechanism's mandate was renewed on 17 November 2016 in Council resolution 2319 (2016). In November 2017, the Council did not renew the mandate.
47. The mandate of the Joint Investigative Mechanism was to identify the perpetrators involved in the use of chemicals as weapons in the Syrian Arab Republic in those instances in which the fact-finding mission had determined that an incident in that country involved or likely involved the use of chemicals as weapons. During its period of activity, the Mechanism presented seven reports to the Security Council attributing responsibility to the Syrian Arab Republic for four incidents (Khan Shaykhun on 4 April 2017, Qaminas and Sarmin on 16 March 2015 and Talmenes on 21 April 2014) and to the Islamic State in Iraq and the Levant for two (Umm Hawsh on 15 and 16 September 2016 and Marea on 21 August 2015).

⁵ The total number of deployments when also including coordination visits, expert consultations, etc., added up to 119 as at the end of August 2024.

Investigation and Identification Team

48. The Conference of the States Parties to the Convention, at its fourth special session, in June 2018, adopted a decision on addressing the threat from chemical weapons use. As part of the decision, the Conference decided that the Technical Secretariat should put in place arrangements to identify the perpetrators of the use of chemical weapons in the Syrian Arab Republic (decision C-SS-4/DEC.3 of 27 June 2018, para. 10).
49. To carry out the mandate, OPCW created the Investigation and Identification Team, which became fully operational in July 2019. The Team is charged with identifying and reporting on all information that is potentially relevant to the origin of chemical weapons in those instances in which the fact-finding mission determines or has determined that use or likely use occurred and cases for which the Joint Investigative Mechanism has not issued a report.
50. The Investigation and Identification Team has issued four reports on its investigations on five separate incidents. The first report focuses on three incidents in Ltamenah, Syrian Arab Republic, on 24, 25 and 30 March 2017 (note S/1867/2020, dated 8 April 2020) and concluded that there were reasonable grounds to believe that the Syrian Arab Air Force used chemical weapons in Ltamenah on three occasions in March 2017. Sarin was used on two occasions and chlorine was used on one occasion.
51. The second report of the Investigation and Identification Team sets out the findings of the investigations conducted on the incident in Saraqib, Syrian Arab Republic, on 4 February 2018 (note S/1943/2021, dated 12 April 2021), and concluded that there were reasonable grounds to believe that the Syrian Arab Air Force, under the control of the Tiger Forces, hit eastern Saraqib by dropping at least one chlorine-filled cylinder.
52. The third report of the Investigation and Identification Team focused on an incident in Douma, Syrian Arab Republic, on 7 April 2018 (note S/2125/2023, dated 27 January 2023). It concluded that there were reasonable grounds to believe that at least one helicopter of the Syrian Arab Air Force, operating under the control of the Tiger Forces, dropped two chlorine-filled cylinders that hit a residential area in Douma, killing 43 named individuals and affecting dozens more.
53. The fourth report of the Investigation and Identification Team sets out the findings of the investigations relating to the incident in Marea, Syrian Arab Republic, on 1 September 2015 (note S/2255/2024, dated 22 February 2024). It concluded that there were reasonable grounds to believe that, on 1 September 2015, during sustained attacks aimed at capturing the town of Marea, units of the Islamic State in Iraq and the Levant deployed sulfur mustard, using one or more artillery guns.

Libya

54. Upon joining the Convention in 2004, Libya declared category 1, category 2 and category 3 chemical weapons. Under OPCW verification, the country completed the destruction of its category 1 and category 3 chemicals in May 2014 and May 2013, respectively.
55. Upon joining the Convention, Libya also declared three chemical weapons production facilities. One of them has been certified by the Technical Secretariat as destroyed in March 2005, and two of them have been certified as converted for purposes not prohibited under the Convention and remain subject to verification.
56. In July 2016, the Government of National Accord of Libya asked for support and assistance in transporting and destroying outside Libyan territory the final remnants of its category 2 chemical weapons. Assistance was provided to Libya.

pursuant to a decision of the OPCW Executive Council (EC-M-52/DEC.1 of 20 July 2016) and Security Council resolution 2298 (2016). On 23 November 2017, OPCW verified the complete destruction of the remnants of the category 2 chemical weapons at a certified waste treatment facility in Germany.

57. The clean-up operations at a former chemical weapons storage site in Libya, conducted with the assistance of OPCW, were completed in March 2020.
58. Upon joining the Convention in 2009, Iraq declared five former chemical weapons production facilities, four of which have been certified as destroyed. One facility was converted for purposes not prohibited under the Convention and remains subject to verification.

Chemical weapons storage facility encapsulation

59. The Technical Secretariat provided assistance to the Government of Iraq in the destruction of chemical weapons remnants in two bunkers, using concrete encapsulation. OPCW verified that both bunkers had been completely encapsulated as at 14 December 2017.
60. In addition to the assistance described above, the Technical Secretariat, in cooperation with five States parties, provided training to site workers in responding to medical emergencies and in handling, sampling and transporting contaminated material.

Technical assistance visits

61. The Technical Secretariat has provided assistance to the Government of Iraq in response to allegations of the use of chemical weapons in that country. In September 2015, Iraq informed OPCW of the use of chemical weapons in its territory. Since then, OPCW has conducted three technical assistance visits: in 2015, 2016 and 2017. OPCW concluded that sulfur mustard had been used as a chemical weapon, and reports detailing the findings have been made available to the Government of Iraq to aid in its investigations.