

II. Chemical weapon arms control and disarmament

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Several factors raised the profile of the Organisation for the Prohibition of Chemical Weapons (OPCW) in 2013. In particular, the allegations of chemical weapon use in Syria and the inability of Syria and the UN Security Council to agree the mandate of the UN Mission to Investigate Allegations of the Use of Chemical Weapons in Syria (see section I above) heightened the political importance of and international attention given to the Third Review Conference of the CWC in April 2013 and the 18th Conference of the States Parties (CSP) in December. The UN Secretary-General, Ban Ki-moon, attended the review conference, the first time that a Secretary-General had attended a CWC meeting of the states parties. He stated 'All serious claims should be examined without delay, without conditions and without exception'.¹ The Secretary-General's visit signalled support and facilitated consultations on the verification modalities of the UN inspection mission and its 'reach back' support mechanisms (whereby people in the field are able to access national experts and organizational expertise for advice and other support)—many of which were provided by or through the OPCW. Finally, in December the OPCW was awarded the 2013 Nobel Peace Prize 'for its extensive efforts to eliminate chemical weapons'.²

As of 31 December 2013, 190 states were party to the 1993 Chemical Weapons Convention (CWC); 2 states had signed but not ratified it; and 4 states had neither signed nor ratified the convention.³ Two states joined the CWC in 2013: Somalia and, in the context of civil war and allegations of the use of chemical weapons, Syria.⁴

¹ United Nations, 'Secretary-General's remarks to the Third Review Conference of the States Parties to the Chemical Weapons Convention', Press release, 8 Apr. 2013, <<http://www.un.org/sg/statements/index.asp?nid=6722>>.

² OPCW, 'Statement by the OPCW Director-General on the 2013 Nobel Prize for Peace', Press release, 11 Oct. 2013, <<http://www.opcw.org/news/article/statement-by-the-opcw-director-general-on-the-2013-nobel-prize-for-peace-1/>>.

³ Israel and Myanmar had signed but not ratified the CWC. The 4 United Nations member states that had neither signed nor acceded to it were Angola, Egypt, North Korea and South Sudan.

For a summary and other details of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, including a full list of parties, see annex A, section I, in this volume. Documents relating to the CWC can be found on the website of the Organisation for the Prohibition of Chemical Weapons (OPCW), <<http://www.opcw.org/documents-reports/>>.

⁴ OPCW, 'Somalia joins the Chemical Weapons Convention', Press release, 31 May 2013, <<http://www.opcw.org/news/article/somalia-joins-the-chemical-weapons-convention/>>.

Main developments

The Third Review Conference

The Third Review Conference, which met on 8–19 April, conducted a structured and systematic review of the operations of the convention and the OPCW without taking any ‘decisions’ as such. The OPCW’s Technical Secretariat issued a matrix of actionable items to assist the parties to prioritize and to formulate Review Conference decisions.⁵

The final document of the Review Conference serves as a reference for the balance and scope of activities that fall under the purview of the organization, can help to inform future consultations on the strategic direction of the regime and also underlines the political commitment of the parties to support the regime.⁶ The Review Conference did not, however, alter the strategic direction of the convention’s implementation.⁷ More conceptual discussions and informal understandings among the parties are required before the members can achieve broad consensus on how the regime should proceed after all chemical weapons have been essentially destroyed.⁸

In December, the 18th CSP reappointed the OPCW Director-General, Ahmet Üzümcü of Turkey, by acclamation for a second (and final) four-year term.⁹

The Scientific Advisory Board

The OPCW Scientific Advisory Board (SAB) plays an important role in identifying and explaining science and technology developments to help ensure that the CWC verification regime remains capable and relevant.

An SAB temporary working group on the convergence of biology and chemistry continued its work in 2013, including through the carrying out of informal meetings and consultations with the regime of the 1972 Biological and Toxin Weapons Convention (BTWC).¹⁰ The working group has estimated that 10 per cent of chemical production will employ biologically

⁵ OPCW, Executive Council, ‘Matrix of actionable items identified at the Third Review Conference’, Note by the Technical Secretariat, EC-73/S/2, 4 June 2013.

⁶ OPCW, 3rd Review Conference, ‘Report of the Third Special Session of the Conference of the States Parties to review the operation of the Chemical Weapons Convention’, RC-3/3, 19 Apr. 2013.

⁷ On the choices faced by the review conference see Daoudi, M. et al., *The Future of the Chemical Weapons Convention: Policy and Planning Aspects*, SIPRI Policy Paper no. 35 (SIPRI: Stockholm, Apr. 2013).

⁸ Daoudi et al. (note 7), p. 32.

⁹ OPCW, Conference of the States Parties, 18th Session, ‘Renewal of the appointment of the Director-General’, Decision, C-18/DEC.9, 4 Dec. 2013.

¹⁰ The SAB’s 2 other temporary working groups were on education and outreach, and verification. For a summary and other details of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction see annex A in this volume. See also section III below.

mediated processes by 2020.¹¹ This implies that the CWC's routine declaration and inspection regime may eventually encompass some industry and research activities in the life sciences. For this to occur, the CWC parties may have to change their broad general preference for limiting the cost, scope and level of intrusiveness of the convention's routine verification regime. This discussion relates to a long-standing CWC implementation issue as to whether the convention's provisions for 'production by synthesis' should include biological and biologically mediated processes (e.g. through the use of enzymes as catalysts).¹²

The working group also concluded that the potential to apply biotechnology for the production of toxic chemicals listed in Schedule 1 and Schedule 2 of the CWC's Annex on Chemicals remains limited.¹³

Modification of the geographical groupings

As with any United Nations-type organization, the CWC parties typically consult and agree positions in five regional caucus groups: Africa, Asia, Eastern Europe, Latin America and the Caribbean, and Western Europe and Other States. On behalf of the Asian Group, Pakistan sought to modify the geographical groupings, the first such effort in the CWC regime and a highly unusual request in a UN-type organization.¹⁴ The OPCW Executive Council was unable to reach consensus on this matter.¹⁵

Parties also made informal requests to clarify how the CWC negotiators determined regional geographic groupings at the Conference on Disarmament. In particular, some non-Western states wish to reduce or eliminate the Eastern European Group and increase the representation of the Asian Group. Its existence reflects the two cold war blocs that played a major role in shaping and agreeing the convention, but it no longer reflects the political alignment of several East European states.

The position of many CWC delegations since the convention entered into force is to maintain that the agreement should be understood on its own

¹¹ OPCW, Scientific Advisory Board, Report of the third meeting of the temporary working group on the convergence of chemistry and biology, SAB-20/WP.3, 11 Apr. 2013, p. 6.

¹² See CWC (note 3), Verification Annex, Part IX.

¹³ Mogl, S., 'OPCW SAB TWG: convergence in chemistry and biology, end of mandate report', Presentation to BTWC Meeting of States Parties, Geneva, 10 Dec. 2013, <[http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/F1E3C6301EB76635C1257C3D005FC261/\\$file/BWC_MSP_2013-Presentation-131210-OPCW_SAB_TWG_Convergence.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/F1E3C6301EB76635C1257C3D005FC261/$file/BWC_MSP_2013-Presentation-131210-OPCW_SAB_TWG_Convergence.pdf)>, slide 5. The Annex on Chemicals of the CWC (note 3) comprises 3 'schedules'. Schedule 1 chemicals consist of chemicals and their precursors judged to have few, if any, peaceful applications. Chemicals listed in schedules 2 and 3 have wider peaceful, including commercial, applications.

¹⁴ The request for inclusion of this matter on the Executive Council's agenda along with an explanatory note is provided in OPCW, Executive Council, 'Request for the inclusion of an item in the provisional agenda for the seventy-first session of the Executive Council, 19–22 February 2013', Note by the Director-General, EC-71/Rev.1/Add.1, 8 Feb. 2013.

¹⁵ OPCW, Executive Council, Report of the 71st session, EC-71/3, 21 Feb. 2013, para. 2.1. The agenda item was entitled 'Rationality of the representation of the regional groups in the Executive Council'.

terms, rather than in the context of the intent of the negotiators.¹⁶ While changes have been made, for example, to the OPCW Central Analytical Database (OCAD), the membership has opposed making changes to the Annex on Chemicals or taking decisions by majority vote when the matter is not one 'of substance' (i.e. is administrative or procedural). The request to change the geographical groupings also reflects a broader international shift in economic and political influence.

Other developments

In 2013 the OPCW participated in 26 capacity-building exercises in the area of assistance and protection.¹⁷ By June 2013 the OPCW assistance and protection data bank had been accessed 1644 times since it was made available in December 2007, including 349 times in the period 22 May 2012–31 May 2013.¹⁸

An OPCW Technical Secretariat background paper outlined differences between declarations made by a state party under Article VI of the CWC and the results of inspection of the chemical industry. These were largely categorized according to (a) differences between the number of discrete organic chemicals (DOC) plants declared by the party and the number of plants verified on site, (b) differences between the product group codes that the party declared and the group codes that were verified on site (i.e. where there was at least one change made to the product group sub-codes), (c) instances where the OPCW inspection team proposed to use or change the product group sub-codes, (d) differences found on site between the production range declared by the party and the production range as verified on site, and (e) differences between the name, owner and address of the plant site and what was verified on site.¹⁹

Destruction of chemical weapons

As of 31 December 2013, 58 528 tonnes of category 1 chemical weapons had been destroyed (81 per cent of the 72 532 tonnes that have been declared by

¹⁶ On the negotiating history see Krutzsch, W., Myjer, E. and Trapp, R. (eds), *The Chemical Weapons Convention: A Commentary* (Oxford University Press: Oxford, 2014). See also Kenyon, I. R. and Feakes, D. (eds), *The Creation of the Organisation for the Prohibition of Chemical Weapons: A Case Study in the Birth of an Intergovernmental Organisation* (T. M. C. Asser Press: The Hague, 2007).

¹⁷ OPCW, Conference of the States Parties, 18th session, Opening statement by the Director-General, C-18/DG.17, 2 Dec. 2013, para. 108.

¹⁸ OPCW, Executive Council, 'The content of the assistance-and-protection data bank and its use', Note by the Technical Secretariat, EC-73/S/3, 10 June 2013, para. 12.

¹⁹ OPCW, Technical Secretariat, 'Refinements in the conduct of inspections to improve the consistency, effectiveness, and efficiency of the Article VI verification regime', Note by the Technical Secretariat, S/1066/2013, 11 Feb. 2013, p. 8.

CWC parties).²⁰ As of the same date, 14 states had declared 96 former chemical weapon-production facilities, of which 43 have been destroyed and 22 converted to peaceful purposes.²¹ Eight states have declared chemical weapon stockpiles to the OPCW: Albania, India, Iraq, South Korea, Libya, Syria, Russia and the United States. Albania, India and South Korea have destroyed their stockpiles.

Iraq declared the possession in 2009 of chemical weapons in two bunkers from the previous regime of Saddam Hussein.²² The country submitted to the OPCW further chemical weapon-related facility information to help inform the destruction planning, but no destruction operations occurred in 2013.²³

As of 31 October Libya had destroyed 22.3 tonnes (85 per cent) of its category 1 chemical weapons, and 555.7 tonnes (40 per cent) of its category 2 chemical weapons.²⁴ In May 2013 Libya completed the destruction of sulphur mustard stored in bulk at Ruwagha.²⁵ Prompted by the initially incomplete chemical weapon declaration by Libya, the OPCW Technical Secretariat issued procedures for handling cases of previously undeclared schedule 1 facilities and activities.²⁶ Libya's category 1 chemical weapons were projected to be destroyed by the end of 2013. This was achieved in January 2014.²⁷ Destruction of its category 2 chemical weapons is scheduled to be completed by December 2016.²⁸

As of 31 October Russia had destroyed 30 795 tonnes (77 per cent) of its category 1 chemical weapons.²⁹ In 2013 five chemical weapon-destruction facilities (CWDFs) were operating, at Kizner, Leonidovka, Maradykovsky, Pochep and Shchuchye. The Kizner CWDF opened on 19 December.³⁰

²⁰ The definition of chemical weapon categories, which is partly based on what schedule a chemical may be listed under (see note 13), is given in CWC (note 3), Verification Annex, Part IV(A), para. 16.

²¹ OPCW, 'Demilitarisation', <<http://www.opcw.org/our-work/demilitarisation/>>.

²² For more information see previous editions of the SIPRI Yearbook.

²³ OPCW, C-18/DG.17 (note 17), para. 31.

²⁴ OPCW, C-18/DG.17 (note 17), para. 28.

²⁵ OPCW, 'Libya completes destruction of its bulk sulfur mustard stockpile', Press release, 6 May 2013, <<http://www.opcw.org/news/article/libya-completes-destruction-of-its-bulk-sulfur-mustard-stockpile/>>.

²⁶ OPCW, Executive Council, 'Technical Secretariat's procedure for handling cases of previously undeclared Schedule 1 facilities and activities', Note by the Director-General, EC-72/DG.6, 24 Apr. 2013. On the circumstances of Libya's incomplete declaration see Hart, J., 'Chemical weapon arms control and disarmament', *SIPRI Yearbook 2013*, p. 373.

²⁷ Libya completed the destruction on 26 Jan. 2014. OPCW, 'Libya completes destruction of its category 1 chemical weapons', Press release, 4 Feb. 2014, <<http://www.opcw.org/news/article/libya-completes-destruction-of-its-category-1-chemical-weapons/>>.

²⁸ OPCW, C-18/DG.17 (note 17), para. 30.

²⁹ OPCW, C-18/DG.17 (note 17), para. 25. Russia has already destroyed all of its category 2 and category 3 chemical weapons.

³⁰ OPCW, 'New chemical weapons destruction facility opens at Kizner in the Russian Federation', 20 Dec. 2013, <<http://www.opcw.org/news/article/new-chemical-weapons-destruction-facility-opens-at-kizner-in-the-russian-federation/>>.

Russia reiterated that it plans to complete the destruction of its chemical weapon stockpile by December 2015.³¹ Official estimates reported that the Cooperative Threat Reduction (CTR) programme—which ended in 2013—had supported the destruction of a total of 4018.6 tonnes of chemical weapons in Albania and Russia.³²

As of 31 October the USA had destroyed 24 924 tonnes (90 per cent) of its category 1 chemical weapons. The remaining US stockpile is located at Blue Grass, Kentucky, and Pueblo, Colorado, where 1.7 per cent and 8.5 per cent of the total original stockpile are located, respectively.³³ Destruction operations at Pueblo are scheduled to begin in December 2015, while destruction operations at Blue Grass are scheduled to begin in April 2020.³⁴ The USA estimates it will complete the destruction of its chemical weapon stockpile by September 2023.³⁵

As of 31 December 2013, the declared chemical weapon-production facilities of Syria had all been destroyed, and its declared stockpile of chemical weapons was being transported out of the country for destruction, scheduled to be completed by 30 June 2014 (see section I).

Old, abandoned and sea-dumped chemical weapons

As of 31 December 2013, four countries had declared that abandoned chemical weapons (ACW) are present on their territories, and 15 countries had declared that they have possessed old chemical weapons (OCW) since the CWC's entry into force.³⁶ In 2013 the OPCW conducted six inspections of OCW sites in five states.³⁷

On-site Chinese–Japanese investigations of chemical weapons abandoned in China by Japan during World War II started in 1991, while excavation and recovery operations started in 2000. Since 1991 more than 110 operations at 50 locations have been carried out. A fixed CWDF, located at Haerbalang, Jilin province, has been operational since December 2012.³⁸

³¹ OPCW, Conference of the States Parties, 18th session, 'Report of the Executive Council on the performance of its activities in the period from 16 July 2012 to 19 July 2013', C-18/2, 9 Oct. 2013, para. 2.10 (b).

³² Blanton, T., Savranskaya, S. and Melyakova, A. (eds), 'Nunn–Lugar revisited', National Security Archive Electronic Briefing Book no. 447, George Washington University, 22 Nov. 2013, <<http://www2.gwu.edu/~nsarchiv/NSAEBB/NSAEBB447/>>, 'Nunn–Lugar CTR scorecard'. On the ending of the CTR programme see section IV below; and chapter 7, section III, in this volume.

³³ Hopkins, A. T., 'United States chemical demilitarization program', Presentation by Principal Deputy (Acting) to the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs at the 18th Conference of the States Parties, The Hague, Dec. 2013, slide 2.

³⁴ OPCW, C-18/DG.17 (note 17), para. 21.

³⁵ OPCW, C-18/DG.17 (note 17), para. 20.

³⁶ OPCW (note 21).

³⁷ The countries were Belgium, Canada, Germany, the Netherlands and the UK. OPCW, C-18/DG.17 (note 17), para. 51.

³⁸ OPCW, Conference of the States Parties, 18th session, 'Japan: abandoned chemical weapons in China: progress in 2013', Poster session, The Hague, 2–5 Dec. 2013.

Two mobile destruction facilities (MDFs) have operated: one in the south and one in the north. MDF-South has completed destruction operations at Nanjing, Jiangsu province, and is currently deployed at Wuhan, Hubei province, after which it will be moved to Guanzhou, Guangdong province. MDF-North is deployed at Shijiazhuang, Hebei province, after which it will be moved to Harbin, Heilongjiang province. Scattered recovery operations will transfer ACW either to the fixed CWDF or to one of the two MDFs, and 1700 ACWs are planned to be destroyed at Shijiazhuang. As of May 2013, 49 682 ACWs (including destroyed items) had been declared.³⁹ Munitions will continue to be recovered as excavation work proceeds in various known and yet-to-be-discovered sites.

The MUNI ad hoc working group of the Baltic Marine Environment Protection Commission (known as the Helsinki Commission, Helcom) issued its final report in December. This report updates the previous major Helcom report on dumped chemical weapons in the Baltic Sea, issued in 1994, which recommended that recovery of chemical munitions not be undertaken. Under the revised report, the parties are ‘recommended to’, among other things, ‘Transfer procedures and experience for intentional recovery [of chemical munitions] that exist under the provisions of current international legal instruments’ and to ‘Deploy response teams and, on their advice, consider relocation [of chemical munitions] as an acceptable emergency measure’.⁴⁰ Such recovery operations should be site-specific and both technically advisable and feasible. This type of recovery work is possible under the Helcom SUBMERGED working group, which was established in 2013 under the already existing Helcom RESPONSE.

The UN General Assembly approved—without a vote—a resolution on cooperative measures to assess and increase awareness of the environmental effects of waste associated with sea-dumped chemical weapons.⁴¹ The resolution invites UN member states to provide assistance and share expertise in order to build capacities to assess, monitor and gather information, and to improve risk prevention and response. It also invites the UN Secretary-General to consult with UN member states with a view to establishing a database at the ‘most appropriate institutional framework’ in the UN system which ‘could contain relevant and voluntarily shared information’ on the location of dump sites, the type and quantity of and, to the

³⁹ OPCW, Executive Council, Japan: report on the current status of the ACW projects in China in accordance with the Executive Council decision (EC-67/DEC.6) (reporting period: 1 April–31 May 2013), EC-73/NAT.2, 14 June 2013, para. 3.1 (b) (iii), para. 3.3 (b).

⁴⁰ Knobloch, T. et al., *Chemical Munitions Dumped in the Baltic Sea*, Report of the ad hoc Expert Group to Update and Review the Existing Information on Dumped Chemical Munitions in the Baltic Sea (Helcom MUNI), Baltic Sea Environment Proceedings no. 142 (Baltic Marine Environment Protection Commission: Helsinki, 2013), p. 8.

⁴¹ UN General Assembly Resolution 68/208, 20 Dec. 2013.

extent possible, current condition of chemical munitions and their 'recorded' environmental impact.

This latest consideration by the UN of dumped chemical weapons was initially carried out in the framework of the First Committee (the Disarmament and International Security Committee) more than three years ago. However, it was shifted to the Second Committee (the Economic and Financial Committee) in order to frame the issue more in terms of an environmental issue than an international peace and security issue. This was done in order to lessen the political sensitivity associated with discussions that could result in legally binding commitments connected to dumped chemical weapons. It also reflects the view that the chemical weapons should be considered as an environmental threat. The phrasing of the resolution reflects the fact that some member states do not wish to institutionalize a process that obliges states to recover or remediate dumped chemical weapons (or, more broadly, dumped conventional munitions). Doing so could, for example, prove to be a financial commitment of unknown scale and duration and could raise problematic questions regarding legal responsibility.

Companies continue to develop and test technologies for the identification, recovery or remediation of dumped (including chemical) munitions.⁴² The disposal of Syrian chemical weapon precursors and sulphur mustard on a ship in the Mediterranean Sea, which began in 2014, adds to this experience and—provided that the technical feasibility, political will and resources are available—lends a degree of political acceptability to the carrying out of such work more systematically in future.

⁴² E.g. International Dialogue on Underwater Munitions, <<http://underwatermunitions.org/>>; and Chemical Munitions Search & Assessment (CHEMSEA), <<http://www.chemsea.eu/>>.