II. Chemical weapon arms control and disarmament

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As of 31 December 2011, 188 states had ratified or acceded to the 1993 Chemical Weapons Convention (CWC), the principal international legal instrument against chemical warfare; a further two states had signed but not ratified it; and six states had neither signed nor ratified the convention.¹ No state joined the convention in 2011. The activity of the Organisation for the Prohibition of Chemical Weapons (OPCW) in 2011 was, with the notable exception of the Director-General’s advisory panel report, largely process-oriented.

The 16th Conference of the States Parties (CSP) agreed a 2012 budget of €70 561 800 ($94 million) of which €33 296 600 ($44 million) is allocated for verification-related costs and €37 265 200 ($50 million) for administrative and other costs; this represents a 5.4 per cent reduction compared to the 2011 budget.² In a unique, non-precedent setting measure, the CSP gave the Director-General, Ahmet Üzümcü, the authority to grant contract extensions or renewals to staff (who may not work longer than 10 years) with expertise applicable to the ‘operational requirements of verification and inspection of destruction-related activities’ until 29 April 2016.³

The 2012 regular budget consists of (a) administration (21 per cent), (b) executive management (12 per cent), (c) external relations (3 per cent), (d) support for the OPCW’s policymaking organs (7 per cent), (e) international cooperation and assistance (10 per cent), (f) inspections (35 per cent), and (g) verification (12 per cent).⁴ The inspection component of the budget will decline by a little over 5 percentage points for 2012. Reduced inspections reflect the April 2012 deadline for the destruction of chemical weapon stockpiles. Since the CWC’s entry into force, approximately 85 per cent of the inspection resources of the OPCW have been devoted to verifying chemical weapon destruction.⁵ Although the overall inspection effort is declining, the chemical weapon destruction deadline will not be met by

¹ For a summary and a list of parties and signatories of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction see annex A in this volume. The states that had not signed or ratified the CWC were Angola, Egypt, North Korea, Somalia, South Sudan and Syria. Israel and Myanmar had signed but not ratified the CWC.


⁴ OPCW, C-16/DEC.12 (note 2), p. 11.

Libya, Russia and the United States. It is noteworthy that the number of future inspections is determined primarily by the number of active destruction facilities, which will drop in 2012, before increasing somewhat when the final two US chemical weapon destruction facilities are commissioned.

The CSP also established an international support network for victims of chemical weapons along with a voluntary trust fund; among other activities, the OPCW Technical Secretariat will administer the fund, and coordinate and facilitate the establishment of contacts and appropriate information.\(^6\) The CSP undertook further efforts to achieve universal membership of the CWC.\(^7\)

The Director-General established an advisory panel in order to help clarify how the OPCW’s focus on chemical weapon destruction can best be shifted to a broader objective of sustained chemical weapon disarmament. The report emphasized that the OPCW, among other functions, should ‘remain the global repository of knowledge and expertise’ on chemical weapon disarmament as well as on the verification of the non-possession and non-use of such weapons.\(^8\) The delegations praised the report, which presented a menu of options and associated principles that could serve to validate the balance and scope of activity that the Director-General wishes the Technical Secretariat to implement over the coming years. For example, Pakistan stated that the report correctly assigns priority to completion of chemical weapon destruction and strikes a proper balance between regulatory aspects (industry, verification and national implementation) and international cooperation in chemistry.\(^9\) The Director-General stated that effective industry verification and data monitoring are the ‘bedrock’ for the prevention of the re-emergence of chemical weapons.\(^10\)

Mexico expressed dissatisfaction with the manner in which the OPCW’s policymaking organs have functioned since the CWC entered into force, stating that adjustments should be made to administration practice and asking whether it is ‘appropriate to place the weight of decisions lengthy and intensively negotiated on the discussions of report language during the


\(^7\) For a summary of universality efforts in Africa see the newsletter of the South African Institute for Security Studies. Broodryk, A. and Stott, N., ‘Enhancing the role of the OPCW in building Africa’s capacity to prevent the misuse of toxic chemicals’, \textit{Africa’s Policy Imperatives}, no. 6 (May 2011).


\(^10\) OPCW, Conference of the States Parties, Opening statement by the Director-General, C-16/DG.18, 28 Nov. 2011, para. 21.
adoption of the final report, many times reflecting occurrences that did not take place or decisions that were not taken during the formal sessions?"\(^{11}\)

**Destruction of chemical weapons**

As of 30 November 2011, of 71,195 agent tonnes of declared chemical weapons, 50,619 agent tonnes had been verifiably destroyed; of 8.67 million declared items and chemical weapon containers, 3.95 million had been destroyed.\(^{12}\) As of November 2011, 13 states had declared 70 former chemical weapon production facilities, of which 43 had been destroyed and 21 converted to peaceful purposes.\(^{13}\) The states that had declared chemical weapon stockpiles to the OPCW are Albania, India, Iraq, South Korea, Libya, Russia and the USA. Albania, India and South Korea had destroyed all of their declared chemical weapons, and all declared Category 3 chemical weapons had also been destroyed.\(^{14}\) The OPCW estimates that approximately three-quarters of the declared chemical weapon stockpiles were to be destroyed by the extended (and final) CWC deadline of 29 April 2012.\(^{15}\)

**Iraq**

Iraq continued to explore and develop options for the OPCW-verified destruction of chemical weapons in bunkers 13 and 41 at Al Muthanna in the south of the country.\(^{16}\) Iraqi authorities have deemed physical entry to bunker 41 possible, while bunker 13 is still too hazardous to enter.\(^{17}\) Iraq is committed to destroying the contents of bunker 41 and rendering harmless the contents of bunker 13 by encapsulating it in concrete.\(^{18}\) The files of the UN Special Commission on Iraq (UNSCOM) and those of its successor, the UN Monitoring, Verification and Inspection Commission (UNMOVIC), remain sealed and thus largely unavailable to the OPCW Executive Council.\(^{19}\) Technical meetings involving representatives of Iraq, Germany, the United Kingdom, the USA and the OPCW have been held to discuss base-

\(^{11}\) OPCW, Conference of the States Parties, Statement by Ambassador Jorge Lomónaco, Permanent Representative of Mexico, C-16/NAT.23, 28 Nov. 2011, p. 2.


\(^{13}\) OPCW, C-16/DG.18 (note 10), para. 52.

\(^{14}\) The CWC's Annex on Chemicals 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. The definition of chemical weapon categories, which is partly based on what schedule a chemical may be listed under, is given in CWC (note 1), Verification Annex, Part IV(A), para. 16.

\(^{15}\) OPCW, C-16/DG.18 (note 10), para. 5.

\(^{16}\) The other bunkers have been ascertained to be either empty or containing only conventional munitions.


\(^{18}\) Al Sharaa (note 17), p. 15.

\(^{19}\) Al Sharaa (note 17), p. 16.
line data on the contents of the storage bunker (‘containers and munitions...too volatile to attempt to destroy’)—characterized by former UNSCOM Deputy Chairman Charles Duelfer as reminding him of the ‘Great Pyramid at Giza’—and the extent to which the verification of any destruction of the contents of the bunkers should be non-intrusive (i.e. remote sampling, analysis and verification) or intrusive (i.e. involving physical entry).20

In May the OPCW also conducted a low-altitude aerial inspection of Iraq’s former chemical weapon production and storage facilities, using UN Assistance Mission in Iraq (UNAMI) helicopters. The visual inspection and overhead imagery from these flyovers confirmed that Iraq has made progress in razing chemical weapon production facilities and that the two storage bunkers at Al Muthanna appear to remain undisturbed and intact.21 Iraq has approved $55 million for the decommissioning project.22 Bunker 13 appears to contain (a) approximately 2500 partially destroyed 122-mm chemical rockets, (b) approximately 180 tonnes of sodium cyanide, (c) approximately 1.75 tonnes of ‘potassium cyanides’, (d) 75 kilograms of arsenic trichloride, and (e) 170 one-tonne containers that were previously used to hold tabun. Bunker 41 is believed to hold (a) approximately 2000 empty 155-mm artillery shells, (b) 605 one-tonne sulphur mustard containers, which originally held residues of polymerized sulphur mustard, (c) incinerator equipment, (d) about 200 one-litre barrels that contain waste material from decontamination, and (e) ‘heavily contaminated construction material scrap’; bunker 41 also suffers from ‘serious’ contamination from chemical weapon precursor barrel leakage.23 An Iraqi Experts Technical Committee (established by the head of Iraq’s Ministry of Science and Technology) has issued a report that outlines possible solutions to these problems. After Iraq’s Council of Ministers approves the committee’s recommendations, the Ministry of Science and Technology will ‘take the necessary measures to start the Decommissioning project’.24

**Libya**

During the war in Libya concern was expressed that a stock of residual sulphur mustard might be used by forces loyal to Muammar Gaddafi against anti-government protestors and armed rebel groups.25

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23 Al Sharaa (note 17), p. 4.


The OPCW had verified that Libya had destroyed 54.4 per cent of its declared stockpile of Schedule 1 chemical weapons as of 8 February 2011, when destruction operations were stopped because of the need to demolish a heating unit at the destruction facility.26 On 1 September the Executive Council convened an informal meeting to discuss the situation in Libya and the unspecified ‘delivery of assistance’ that had been provided by the Office of the Director-General.27 On 22 September, representatives of the new Libyan Government stated that its forces had captured a sulphur mustard depot in the Al Jufra area (the so-called Ruwagha depot, located 700 kilometres south-east of Tripoli).28 On 3 October the Libyan Under-Secretary for Foreign Affairs sent a note to the Director-General ‘confirming . . . and reiterating’ the importance of sending an OPCW inspection team to Libya to inventory and verify the status of the country’s chemical weapon stockpiles, to confirm that they are secure and to prepare for the resumption of destruction operations ‘at the appropriate time’; on 4 October the Libyan representative to the Executive Council stated that the new government had secured the chemical weapon storage sites at Ruwagha.29

On 2 November an OPCW inspection team visited Libya to verify the status of a temporary chemical weapon holding facility at the Ruwagha Hydrolysis and Neutralisation System to confirm whether sulphur mustard and two chemical weapon precursors had been diverted (the previous inspection had taken place in February when destruction operations were stopped).30 The inspection was financed by Germany’s Federal Foreign Office with further support provided by the UN Department of Safety and Security.31 The one-day inspection examined the chemical weapons stockpiled at the Ruwagha depot and was meant to verify whether Libya’s chemical weapon stocks remained intact and, if so, that they were properly secured in the aftermath of the country’s civil conflict.32 The team confirmed that the facility’s stock of sulphur mustard and chemical weapon precursors had not been diverted.33 On 28 November Libya provided a revised declaration to the OPCW that presents information on previously

26 OPCW, C-16/DG.18 (note 10), para. 34.
30 OPCW, C-16/DG.18 (note 10), para. 39.
31 German Federal Foreign Office, ‘Securing Libya’s chemical weapons’, Press release, 4 Nov. 2011, <http://www.auswaertiges-amt.de/EN/Aussenpolitik/Laender/Aktuelle_Artikel/Libyen/111104-OVCW-Inspektion-node.html>; and OPCW, C-16/DG.18 (note 10), para. 13. Germany is also cooperating with Libya to remove small arms and landmines in Libya.
32 German Federal Foreign Office (note 31).
undeclared chemical weapons (known and suspected). However, Libya will be unable to complete the destruction of its stockpile by 29 April 2012. The UN Security Council has called on Libya to ‘continue . . . close coordination’ with the OPCW to destroy its chemical weapons. The new government reiterated that the country remains committed to ‘all international conventions and treaties it has signed’, including the CWC. The OPCW will undertake a full determination of the status of the previously undeclared chemical weapons (mainly artillery shells) in 2012.

Russia

In 2011 chemical weapon destruction operations were carried out at four facilities in Russia: Leonidovka (c. 6000 tonnes of chemical weapon agent, 87 per cent of the total facility stockpile), Maradykovsky (c. 5600 tonnes, 82 per cent of the facility stockpile), Poche (c. 1800 tonnes, 24 per cent of the facility stockpile) and Shchuchye (c. 2500 tonnes, 47 per cent of the facility stockpile). The seventh and final chemical weapon destruction facility is scheduled to start operating at Kizner in 2012 (Russia had earlier completed destruction operations at Gorny and Kambarka). As of 31 October Russia had ‘destroyed and withdrawn’ 57 per cent (22 714 tonnes) of its Category 1 chemical weapons.

The United States

As of November 2011 the USA had spent $23.7 billion on destroying its chemical weapon stockpiles. It completed destruction operations at Anniston, Alabama (22 September 2011); Umatilla, Oregon (25 October 2011); and at Tooele, Utah (21 January 2012). The remaining stockpile is located at Blue Grass, Kentucky, and Pueblo, Colorado. Of the total original chemical weapon stockpile, 1.7 per cent is located at Blue Grass (consisting of sarin, VX and sulphur mustard), and 8.5 per cent is located at Pueblo (consisting of sulphur mustard). A neutralization-based destruction technology will be used at both sites, although the time frame to complete operations at these two sites is uncertain. The USA will also continue to

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34 OPCW, C-16/DG.18 (note 10), para. 40.
35 OPCW, C-16/DG.18 (note 10), para. 13.
39 OPCW, Russia, C-16/NAT.12 (note 38), p. 2.
40 OPCW, C-16/DG.18 (note 10), para. 41. Russia has now destroyed all of its Category 2 chemical weapons (10 616 tonnes) and its Category 3 chemical weapons.
destroy non-stockpiled chemical munitions as they are discovered in coming years (other parties to the CWC will continue to face this problem).

**Abandoned chemical weapons and old chemical weapons**

As of December 2011, 4 countries had declared that abandoned chemical weapons (ACWs) are present on their territories, and 15 had declared that they have possessed old chemical weapons (OCWs) since the convention’s entry-into-force. OCW destruction operations in 2011 were carried out in Belgium, Italy, Japan, Germany, Switzerland and the UK, while France continued to develop a comprehensive OCW destruction programme.

Destruction operations for ACWs in China continued. ACW sites are clustered in five, geographically distinct projects. As of 30 September 2011, 35 203 ACWs had been destroyed at Nanjing, Jiangsu province: this represents 99 per cent of the declared ACWs at that location and 75 per cent of the declared ACWs in China. Two mobile destruction chambers were scheduled to be used in Haerbing, Jilin province, and in the northern part of China. As of October, Japan had shipped one destruction chamber. Japan provided further information on its destruction operations in Nanjing, which began on 12 October 2010.

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43 The 4 countries that have declared ACWs to the OPCW are China, Iran, Italy and Panama. The Technical Secretariat determined the ACW munitions declared by Iran to be conventional. The 15 countries that have declared OCWs to the OPCW are Austria, Australia, Belgium, Canada, France, Germany, Italy, Japan, Poland, Russia, Slovenia, Solomon Islands, Switzerland, the UK and the USA. ACWs are defined as chemical weapons that were abandoned by a state after 1 Jan. 1925 on the territory of another state without the permission of the latter: CWC (note 1), Article II, para. 6. OCWs are defined as chemical weapons that were produced before 1925 or chemical weapons produced between 1925 and 1946 that have deteriorated to such an extent that they are no longer usable in the manner in which they were designed: CWC (note 1), Article II, para. 5. For information on countries not discussed here see CBW chapters in previous editions of the SIPRI Yearbook.

44 OPCW, C-16/DG.18 (note 10), para. 51.


46 The projects are (a) Mobile Destruction Facility (MDF)-South at Nanjing and Wuhan; (b) MDF-North at Shijiazhuang and Haerbin; (c) Haerbing; (d) ‘activities at other burial sites’ at Jiamusi, Heilongjiang province; Hunchun, Jilin province; Lianhuapao, Jilin province; and Guangzhou, Guangdong province; and (e) identification operations at Anqing, Bengbu, Hangzhou, Shijiazhuang, Shouyang, Wuhan and Xinyang. Fujiwara, H., Deputy Director-General, Abandoned Chemical Weapons Office, Japanese Cabinet Office, ‘Japan’s ACWs in China’, PowerPoint presentation at 14th Annual International Chemical Weapons Demilitarisation Conference (CWD 2011), Interlaken, 23–26 May 2011, slide 5.

47 OPCW, Executive Council, Statement by H. E. Ambassador Takashi Koezuka, Permanent Representative of Japan, EC-66/NAT.8, 4 Oct. 2011, p. 1; OPCW, C-16/DG.18 (note 10), para. 50; and OPCW, Correspondence with author, May 2012.

48 OPCW, Japan, EC-66/NAT.8 (note 47).

49 Fujiwara (note 46), slide 4.
Political tension

The CSP was marked by political tension between Iran and (mainly) the USA. The Iranian representative stated that ‘The former regime of Iraq in its aggression against Iran, deployed chemical weapons against the innocent people of my country, which had been provided to that regime by the United States of America and its western allies’. He also stated that it is ‘unfortunate’ that the USA ‘has explicitly stated that it cannot meet the [chemical weapon destruction] deadline, which is a clear-cut case of non-compliance’ that should therefore be referred to the United Nations. Iran also called on the persons and companies that supplied Saddam Hussein with chemical weapon-related ‘equipment’ to be sued and stated that Israel possesses ‘weapons of mass destruction’ and therefore poses ‘the most dangerous threat against the regional peace and security’.

The US representative replied that the USA has not deliberately failed to destroy its chemical weapon stockpiles by the April 2012 deadline and has no intention of retaining such stockpiles. The delay rather reflected exigencies of its destruction programme over previous years. He stated that ‘A delay in destroying one’s stockpile, even though we are destroying it as rapidly as practicable, is not a deliberate attempt to illicitly retain chemical weapons.’

The US representative also denied that the USA had provided the Iraqi regime under Saddam Hussein with chemical weapons.

At the end of the CSP Iran cast the sole vote against an OPCW decision on the final extended deadline for chemical weapon destruction. It requested the OPCW to sanction the USA (but not Russia, which will also fail to meet its April 2012 chemical weapon destruction deadline). Discussions by the Executive Council and the CSP centred on the language used by the chemical weapon possessor states to reiterate their unequivocal

50 OPCW, Conference of the States Parties, Statement by H. E. Kazem Gharib Abadi, Permanent Representative of Iran, 28 Nov.–2 Dec. 2011. Israel attended the CSP as an observer and, for the first time, addressed the meeting from the floor. Although it expressed support for the object and purpose of the CWC, Israel stated that it was unable to join the regime at present given the current broader geopolitical circumstances in the Middle East—arguing that a broader peaceful accommodation must be reached among the states in the region prior to any accession to the various arms control and disarmament regimes.


52 OPCW, USA (note 51).


54 OPCW, Conference of the States Parties, ‘Explanation of vote on the draft decision on the final extended deadline of 29 April 2012’, Statement by H. E. Kazem Gharib Abadi, Permanent Representative of Iran, 28 Nov.–2 Dec. 2011. The document was circulated at the CSP.
commitment to destroying their stockpiles in the shortest time and to submit further details to the OPCW of their destruction programmes.

The OPCW has continued to make special visits to destruction sites in Russia and the USA; the visits serve to underline the political commitment of both states to destroy their chemical weapon stockpiles as soon as is practical. The CSP decision requires future meetings to undertake an annual review of the progress of chemical weapon destruction by those parties that have not met their April 2012 deadline and sets aside a specially designated meeting at the 2017 CSP to consider this matter. Previous discussions on setting a new chemical weapon destruction deadline will thus be superseded by a process of annual information submission, verification and review by the parties that will probably continue for at least five more years.

55 OPCW, C-16/DEC.11 (note 53), para. 3(f).