8. Chemical and biological security threats

Overview

Allegations of chemical weapon use by Syria continued to dominate the work of the Organisation for the Prohibition of Chemical Weapons (OPCW) in 2018. The Declaration Assessment Team continued its work to resolve gaps, inconsistencies and discrepancies in Syria’s initial declaration, and the Fact-finding Mission in Syria continued to collect and analyse information in relation to allegations of use. Among the allegations was an attack in Douma on 7 April 2018 that prompted the United States, the United Kingdom and France to launch retaliatory strikes against three sites one week later.

Outside of Syria, a toxic chemical from the novichok nerve agent family was used in Salisbury, UK, in March 2018, hospitalizing three people. Two further people were exposed to the same agent in an associated event in June. One of these, Dawn Sturgess, subsequently died in July. At the request of the UK under Article VIII, subparagraph 38(e) of the 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the Chemical Weapons Convention, CWC), the OPCW provided technical assistance and made two visits to the UK. Analysis by OPCW-designated laboratories of the samples taken during these visits confirmed the UK’s findings.

It was against this backdrop that attribution of responsibility for chemical weapon use became a major focal issue for states parties to the CWC. The expiry of the mandate of the OPCW–United Nations Joint Investigative Mechanism created a lacuna in the international community’s ability to respond to use once proved. In an attempt to fill this lacuna, France launched the International Partnership Against Impunity for the Use of Chemical Weapons in January 2018. By the end of the year, membership of the partnership was 38 countries plus the European Union. In May 2018, 11 permanent representatives to the OPCW requested that a Special Session of the Conference of the States Parties be convened with a single substantive agenda item: upholding the global ban on chemical weapons. Held over two days in June, the Special Session decided, by vote, to empower the OPCW with the ability to attribute responsibility.

The issues surrounding the use of chemical weapons, and attribution of responsibility if use has been found, have resulted in a major division between states parties to the CWC. Those states parties which support the June decision consider the numerous claims of chemical weapon use in Syria by the Syrian Government to be credible and so hold the view that an attribution mechanism...
is essential; those which oppose the June decision argue that these allegations are based on fabrications and statements that have politicized the OPCW. This division has effectively destroyed—at least in the short term—the consensus model that has been the norm for decision making within the OPCW, and created serious tensions as a result. Relations between states parties were strained at both the 23rd Conference of the States Parties and the 4th Review Conference. Further, the UN General Assembly’s consideration of the resolutions relating to chemical and biological weapons proved difficult.

Despite these problems, there were some positive developments in 2018. The clean-up of the former chemical weapon storage site at Ruwagha Tank Farm in Libya was making progress and destruction of chemical weapons abandoned in China by Japan was continuing. The OPCW’s subsidiary boards also continued their important work, and Ambassador Fernando Arias of Spain began his four-year term as Director-General of the OPCW in July.

In the field of biological disarmament and non-proliferation, the focus in 2018 was on the Meetings of Experts and the Meeting of States Parties to the Biological and Toxin Weapons Convention (BWC). The overriding concern of these meetings was the adverse financial environment of the BWC, and discussions in December concentrated on urgent measures to ensure future financial predictability and sustainability. The meeting endorsed a set of substantive measures to encourage timely payment, ensure liquidity and avoid deficit spending or accumulation of liabilities. Further discussions on the financial situation will take place in 2019.

In an unanticipated development, the Meeting of States Parties was unable to reach a consensus on the deliberations of the Meetings of Experts, including on any possible outcomes. This was despite considerable preparation and substantial discussion at the August meetings, as well as concerted efforts by the vast majority of states parties negotiating the final report to get more of the substantive discussions reflected. The impasse resulted from what was labelled the ‘obstinacy’ of a single delegation, and underscores the outdated working methods employed by the convention’s meetings.

The failure to agree a substantive outcome stood in stark contrast not only to the activities connected to the Meetings of Experts, but also to BWC-related activities more broadly in 2018. The unusually large number of workshops that took place in 2018 was testament to the interest, initiatives and financial support of a growing number of individual states or groups of states parties, civil society and other actors to strengthen the norm and prohibition against biological weapons.

Other major developments in biological disarmament and non-proliferation in 2018 were the publication of the UN Secretary-General’s Disarmament Agenda, and increasingly confrontational statements by Russia alleging that US biological weapon laboratories are operating in neighbouring states, most notably in Georgia.

CAITRÍONA MCLEISH AND FILIPPA LENTZOS
I. Allegations of use of chemical weapons in Syria

CAITRÍONA MCLEISH

In 2018 the conflict in Syria entered its seventh year and, as in previous years, allegations of chemical weapon (CW) use continued to be made.¹ The most recent of these allegations came on 28 November when the Syrian authorities notified the Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW) of an incident of alleged CW use in Aleppo on 24 November.² As well as analysing and investigating such allegations through its Fact-finding Mission (FFM), the OPCW Declaration Assessment Team (DAT) continued its efforts to clarify outstanding issues regarding the initial declaration submitted by Syria.

Questions continued to be asked about the CW-related activities conducted at Syria’s Scientific Studies and Research Centre (SSRC).³ Documents submitted to the OPCW Technical Secretariat in November 2017 and analysed in early 2018 reportedly acknowledge the SSRC’s role in Syria’s CW programme, but the Secretariat determined that these activities require further clarification.⁴ The 89th session of the OPCW Executive Council noted that ‘the nature and substance of the information that has been provided to the Secretariat do not enable it to resolve all identified gaps, inconsistencies and discrepancies’ and ‘there has been an increase in the number of issues with the Syrian Arab Republic’s declaration’.⁵ Consequently, the Executive Council was unable to verify that Syria’s declaration under the 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (the Chemical Weapons Convention, CWC) was accurate and complete.⁶

On 7 June and 23 June 2018, the two remaining declared CW production facilities in Syria were destroyed. The OPCW verified the destruction as complete on 12 July.⁷ A fourth round of inspections at SSRC facilities located in Barzan and Jamraya took place on 4–6 December.

¹ On the conflict in Syria see chapter 2, section V, in this volume.
⁵ OPCW, Executive Council, ‘Progress in the elimination of the Syrian chemical weapons programme’, Note by the Director-General, EC-87/DG.1, 24 July 2018, pp. 2–3.
⁷ OPCW (note 5), p. 2.
The chemical weapon attack on Douma

The 7 April attack on Douma, Syria, came in the context of a continuing offensive, which had begun in February, against the remaining resistance in the region of eastern Ghouta. According to the Syrian Observatory for Human Rights, more than 1700 civilians were killed in February alone.8

Initial accounts of the 7 April attack seem to draw primarily on a joint statement issued the following day by the Syrian American Medical Society (SAMS) and Syria Civil Defence (the White Helmets), which claimed that ‘more than 500 cases—the majority of whom are women and children—were brought to local medical centres with symptoms indicative of exposure to a chemical agent. Patients have shown signs of respiratory distress, central cyanosis, excessive oral foaming, corneal burns, and the emission of chlorine-like odor’.9 In another news report, SAMS is quoted as suggesting that there may have been two CW attacks in Douma that day—one involving a ‘chlorine bomb’ and another with ‘mixed agents’, including a nerve agent that hit a nearby building.10

International condemnation of the attack by political and religious leaders was swift.11 United States President Donald J. Trump tweeted that there would be a ‘big response’.12 The Turkish Ministry of Foreign Affairs claimed that the attack was ‘largely suspected to have been carried out by the regime’.13 However, the governments of Syria, Iran and Russia issued statements suggesting that these allegations had been fabricated.14 The Russian Foreign Minister, Sergey Lavrov, told the press that ‘Our military specialists have visited this place, along with representatives of the Syrian Red Crescent . . . and they did not find any trace of chlorine or any other chemical substance used against civilians’.15

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12 @realDonaldTrump, Twitter post, 8 Apr. 2018, 06.00.
15 Russian Ministry of Foreign Affairs, Foreign Minister Sergey Lavrov’s remarks and answers to media questions at a joint news conference following talks with Foreign Minister of Tajikistan Sirodjidin Aslov, Moscow, 9 Apr. 2018.
Consideration by the UN Security Council of the chemical weapons attack at Douma

Prompted by the Douma incident, Russia (alone) and the United Kingdom, France, the USA, Poland, the Netherlands, Kuwait, Peru and Côte d'Ivoire (jointly) called for a meeting of the United Nations Security Council, where the reported chemical attacks were discussed under the agenda item ‘threats to international peace and security’. The published proceedings of the meeting suggest a tense atmosphere where strikingly different accounts of the incident were presented. For example, Ambassador Vassily Nebenzia of Russia characterized the information on human suffering at Douma as ‘fake news’, a sentiment repeated by Ambassador Bashar Ja’alfari of Syria when he spoke of ‘fabricated information on social media’. By contrast, the representatives of the other members of the Security Council did not dismiss the allegation as fabricated. In their statements, Ambassador Francois Delattre of France stated that victims showed signs ‘symptomatic of exposure to a potent neurotoxin mixed with chlorine to heighten the lethal effect’ and Ambassador Nikki Haley of the USA that ‘History will record this as the moment when the Security Council either discharged its duty or demonstrated its utter and complete failure to protect the people of Syria. Either way, the United States will respond’.

Three draft resolutions concerning a mechanism to investigate alleged CW attacks such as the one in Douma were voted on at the meeting. Two draft resolutions seeking to establish a UN Independent Mechanism of Investigation (UNIMI)—one authored by Russia and the other led by the USA—had been circulating before the Douma attacks. The principal difference between these draft resolutions concerned where the authority to assign responsibility should reside. In the Russian draft such a decision would be made by the Security Council after the UNIMI had reached its findings ‘beyond any reasonable doubt’. In the US-led draft the investigatory mechanism bore that responsibility. A third draft resolution concerning the work

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17 United Nations, Security Council, Provisional record of the 8225th meeting, S/PV.8225, 9 Apr. 2018. The members of the UN Security Council that did not dismiss the allegation were Bolivia, Côte d’Ivoire, Equatorial Guinea, Ethiopia, France, Kazakhstan, the Netherlands, Poland, Sweden, the USA, the UK, France, Sweden and Poland.
18 United Nations (note 17).
of the OPCW FFM was also tabled. The Security Council failed to reach agreement on any of the three draft resolutions.\(^\text{20}\)

Over the next four days tensions increased. French President Emmanuel Macron, for example, said during a televised interview: ‘We have the proof that last week chemical weapons, at least chlorine, were used and that they were used by the Bashar al-Assad regime’.\(^\text{21}\) NBC News quoted two US Government officials who stated that they now had blood and urine samples that ‘suggest the presence of both chlorine gas and an unnamed nerve agent’.\(^\text{22}\)

The idea that more than chlorine had been used in Douma received less emphasis in a French National Assessment of the incident released on 14 April.\(^\text{23}\) The assessment concluded: ‘(i) that, beyond possible doubt, a chemical attack was carried out against civilians at Douma on 7 April 2018; and (ii) that there is no plausible scenario other than that of an attack by Syrian armed forces as part of a wider offensive in the Eastern Ghouta enclave’.\(^\text{24}\)

In their assessment of the Douma attack, US intelligence services held ‘with confidence’ the view that the ‘Syrian regime used chemical weapons’, basing their conclusions on ‘descriptions of the attack in multiple media sources, the reported symptoms experienced by victims, videos and images showing two assessed barrel bombs from the attack, and reliable information indicating coordination between Syrian military officials before the attack’\(^\text{25}\).

On whether more than just chlorine had been used, the US report concluded that ‘a significant body of information points to the regime using chlorine in its bombardment of Duma, while some additional information points to the regime also using the nerve agent sarin’.\(^\text{26}\)

**US, British and French air strikes**

A third meeting of the UN Security Council on the Douma attacks was held on 13 April 2018. The UN Secretary-General, António Guterres, briefing the Council, stated that ‘the cold war is back with a vengeance’. He expressed concern that ‘increasing tensions and the inability to reach a compromise in the establishment of an accountability mechanism threaten to lead to a


\(^{26}\) White House (note 25).
full-blown military escalation’. The following day, the US, French and British militaries carried out more than 100 air strikes against three sites: the Barzeh Research and Development Center in the Barzeh district of Damascus, and a chemical weapons storage facility and a bunker facility, both located at Him Shinsar, west of Homs.

Russia requested a meeting of the UN Security Council immediately after the air strikes, at which a statement from President Vladimir Putin claimed that: ‘An act of aggression against a sovereign State on the front lines in the fight against terrorism was committed without permission from the Security Council and in violation of the Charter of the United Nations and the norms and principles of international law’. Bolivia, China, Kazakhstan and Equatorial Guinea, among other members of the Security Council, also criticized the air strikes. Some Council members, such as the USA, the UK, France and Poland, justified the air strikes, and the representative of the Netherlands described the response as ‘understandable’. The polarization of the Security Council was further cemented when a Russian draft resolution condemning the ‘aggression’ against Syria by ‘the US and its allies in violation of international law and the UN Charter’ failed to be adopted.

At a meeting of the OPCW Executive Council on 16 April, similar divisions were apparent. Expressions of support for the ‘proportionate response’ of the USA, the UK and France to the use of CWs in Syria were made by Australia, Canada, Bulgaria on behalf of the European Union (EU) and, in their national capacities, Albania, Belgium, Estonia, Germany, Latvia, Portugal, Slovenia and Turkey. In contrast, the public webpage for the Executive Council meeting recorded Russian and Iranian criticism of the airstrikes. Later in the month, the Russian delegation informed the Technical Secretariat that on 26 April it would hold a briefing for states parties on the Douma incident, where Douma residents would provide testimony. The Secretariat advised the Russian delegation that these witnesses should be interviewed by the FFM and recommended that the briefing take place once the FFM had completed the interviews. The Russian delegation chose to proceed with the briefing, at which Douma residents insisted that there had been no chemical attack.

30 United Nations (note 29).
32 See OPCW, ‘Fifty-Eighth Meeting of the Executive Council: Documents’.
34 OPCW (note 33).
A joint statement by 17 OPCW member states denounced the briefing as ‘nothing more than a crude propaganda exercise’ and called ‘for an end to the unacceptable defamation of the OPCW by the Russian Federation’.35

The OPCW Fact-finding Mission related to Douma

On 6 July 2018, the FFM issued an interim report concerning the alleged use of toxic chemicals in Douma on 7 April.36 The interim report noted that an advance team was dispatched on 12 April, and a follow-on team dispatched the next day; a second team was dispatched to a neighbouring country on 16 April. However, the FFM was unable to enter Douma for almost a week, and the first of five visits to sites of interest only took place on 21 April. These sites included a warehouse and another facility that the Syrian authorities suspected had been producing CWs. The FFM collected more than 100 samples from these sites of interest; and the team deployed to the neighbouring country also gathered and received biological and environmental samples. The teams conducted a combined total of 34 interviews.

Given the large number of samples taken, the FFM prioritized a set of 31 samples for initial analysis. Analyses of environmental samples and plasma samples showed no organophosphorus nerve agents or their degradation products. However, various chlorinated organic chemicals were found in samples taken at two locations in an apartment building, along with residues of explosives. The interim report noted that the work of the FFM team to establish the significance of these results was ongoing. With regard to the warehouse and the facility suspected by the Syrian authorities to be producing CWs, the interim FFM report noted that, based on its observations of equipment and chemicals during the two onsite visits, there was no indication that either facility was involved in the production of chemical warfare agents. The Final Report was published 1 March 2019.

Other OPCW Fact-finding Mission reports released in 2018

The FFM in Syria issued four reports in 2018. In addition to the Douma interim report, there were reports concerning alleged incidents at Saraqib on 4 February 2018 and at Ltamenah on 24 and 25 March 2017; and a report that

35 For the text of the joint statement see OPCW, Executive Council, ‘Joint Statement by Australia, Bulgaria, Canada, Czechia, Denmark, Estonia, France, Germany, Iceland, Italy, Latvia, Lithuania, the Netherlands, Poland, Slovakia, the United Kingdom, and the United States of America’, EC-M-58/NAT.5, 26 Apr. 2018.
covered both Al-Hamadaniyah on 30 October 2016 and Karm Al-Tarrab on 13 November 2016.37

On the alleged incident in Saraqib, the FFM was not able to gain access to the location and so relied on alternative methods of investigation, such as interviews with individuals linked to the reported incident, a review of documentation and hospital records provided by interviewees, as well as analyses of environmental samples and metal objects received by the FFM on 19 February. Through its investigation, the FFM determined that ‘11 people displayed medical signs and symptoms associated with exposure to a chemical that primarily irritates tissue such as eyes, nose, throat, and lungs’.38 In addition, ‘chlorine, released from commercial gas cylinders through mechanical impact, was likely used as a chemical weapon’.39 The FFM also noted the presence of chemicals ‘that can neither be explained as occurring naturally in the environment nor as being related to chlorine . . . [and that] some of the medical signs and symptoms reported were different to those that would be expected from exposure to pure chlorine’.40 On this latter point, the FFM stated that it did not have sufficient information or evidence to draw any further conclusions at that time.

The FFM’s report on the two alleged incidents in Ltamenah was issued in June 2018. The conclusions reached by the FFM on both allegations were derived from an analysis of interviews and supporting material submitted during the interview process, analyses of environmental samples, and subsequent cross-referencing and corroboration of evidence. However, the samples received by the FFM were not analysed immediately ‘due to the priority assigned to other samples including but not limited to those relating to the incident at Khan Shaykun on 4 April 2017 and Ltamenah on 30 March 2017’.41 Nonetheless, the FFM determined that 16 people displayed signs and symptoms consistent with acetylcholinesterase inhibition on 24 March 2017. Sample analysis results showed the presence of sarin and other chemicals, including potential impurities and breakdown products related to sarin, leading the FFM to conclude that sarin was very likely to have been the CW used. The FFM also noted that the results were consistent with those from the incident in Khan Shaykhun, where sarin was used, and the incident in

38 OPCW, S/1626/2018 (note 37), para. 7.2.
39 OPCW, S/1626/2018 (note 37), para. 7.4.
40 OPCW, S/1626/2018 (note 37), para. 7.5.
41 OPCW, S/1636/2018 (note 37), para. 5.34.
Ltamenah on 30 March 2017, where sarin was ‘very likely’ to have been used as a CW.\textsuperscript{42} With regard to the alleged attack on the following day, the FFM determined that ‘33 people displayed medical signs and symptoms associated with exposure to a chemical that primarily irritates tissue in the eyes, nose, throat, and lungs’.\textsuperscript{43} The report concluded that chlorine was ‘very likely’ to have been used as a CW on this occasion.\textsuperscript{44}

The FFM report concerning the alleged use of toxic chemicals in Al-Hamadaniyah and Karm Al-Tarrab was issued on 2 July 2018. These incidents were brought to the attention of the Technical Secretariat by the Syrian authorities and formed the basis of five deployments between November 2016 and April 2018. Based on information received and analysed during these deployments, the FFM found that the narratives established during interviews and from statements were consistent with information included in the incident reports that approximately 60 casualties from Al-Hamadaniyah and 40 from Karm Al-Tarrab presented with similar symptoms, though none suffered any long-term effects and there were no fatalities.\textsuperscript{45} However, the FFM determined that it could not ‘confidently determine whether or not a specific chemical was used as a weapon in the incidents that took place in the neighbourhood of Al-Hamadaniyah on 30 October 2016 and in the area of Karm Al-Tarrab on 13 November 2016’.\textsuperscript{46} It put forward the view that ‘persons affected in the reported incidents may, in some instances, have been exposed to some type of non-persistent, irritating substance’.\textsuperscript{47}

The FFM continued its work with regard to a number of other alleged instances of use reported in six separate notes verbales sent in 2017.\textsuperscript{48} These notes verbales refer to incidents at Qalib al-Thawr, Al-Salimayah on 9 August 2017; at Khirbat Masasinah, Hama Governorate on 7 July and 4 August 2017; at Al-Balil, Souran, Hama Governorate on 8 November 2017; and around Yarmouk Camp in Damascus on 22 October 2017. FFM activities in relation to these incidents involved translating relevant documentation, transcribing interviews and analysing information either provided by the Syrian authorities or collected by the FFM teams during deployment.

**Towards the attribution of responsibility for chemical weapon attacks**

The expiry of the mandate of the OPCW–UN Joint Investigative Mechanism in November 2017 left a lacuna in the international community’s ability to

\textsuperscript{42} OPCW, S/1636/2018 (note 37), para. 6.8.
\textsuperscript{43} OPCW, S/1636/2018 (note 37), para. 6.5.
\textsuperscript{44} OPCW, S/1636/2018 (note 37), para. 6.9.
\textsuperscript{45} OPCW, S/1642/2018 (note 37), paras 9.9 and 9.10.
\textsuperscript{46} OPCW, S/1642/2018 (note 37), para. 9.11.
\textsuperscript{47} OPCW, S/1642/2018 (note 37), para. 9.11.
attribute responsibility for use of CWs when such use has been established.\textsuperscript{49} In an attempt to fill this gap, on 23 January 2018 France launched an International Partnership Against Impunity for the Use of Chemical Weapons. The partnership aimed to bring together member states from all OPCW regional groups in order to uphold and strengthen the implementation of the CWC against the use of CWs, promote the CWC’s objectives, give all possible support to the OPCW to fully carry out its mandate in this respect and deter any future use of such weapons.\textsuperscript{50} Over the course of 2018, membership grew from 25 countries plus the EU to 38 countries plus the EU.

Among other things, members of the partnership commit to ‘collect, compile, retain, and preserve relevant information to support efforts to hold accountable those responsible for the proliferation or use of chemical weapons’ and to ‘publicize the names of individuals, entities, groups or governments placed under sanctions for their involvement in the proliferation or use of chemical weapons through a dedicated website’.\textsuperscript{51} Accordingly, the public website associated with the partnership maintains a list, which is updated twice a year, of individuals and entities that have been identified as having been involved in CW use or having contributed to the development of CW programmes, and are subject to sanction measures by France, the USA, the UK, Canada, Australia and the EU.\textsuperscript{52}

Three further meetings of the partnership were held in 2018. The first took place in Paris in May, where participating states exchanged information on incidents and the perpetrators involved in the development and use of CWs.\textsuperscript{53} A second meeting was held in New York in October. The report from the meeting noted that discussions included setting out the action required to strengthen the OPCW in the light of the decision taken at the June Special Session of the Conference of the States Parties (see section III).\textsuperscript{54} A further meeting was scheduled for early November 2018, before the regular session of the Conference of the States Parties and the Review Conference. At the time of writing, no report from that meeting had been made available.

\textsuperscript{49} Hart (note 3), pp. 357–58.
\textsuperscript{52} As of 28 May 2018, there were 348 names of individuals or entities recorded. See <https://www.noimpunitychemicalweapons.org/-en-.html>.
II. The Skripal case: Assassination attempt in the United Kingdom using a toxic chemical

CAITRÍONA MCLEISH

Details of the attempted assassination in Salisbury

On 4 March 2018, three people—Sergey Skripal, his daughter Yulia and Detective Sergeant Nick Bailey, a Wiltshire police officer—were exposed to a toxic chemical (acetylcholinesterase inhibitor) in Salisbury, Wiltshire, United Kingdom. Two others, Dawn Sturgess and Charlie Rowley, were exposed to the same toxic chemical in nearby Amesbury on 30 June. While the Skripals, Bailey and Rowley recovered from their exposure to the poison, Sturgess did not and she died on 8 July. Samples from the victims of the 4 March attack were tested at the UK’s Defence Science and Technology Laboratory at Porton Down. Three days after the attack, the Metropolitan Police Service’s Assistant Commissioner for Specialist Operations, Mark Rowley, announced that forensic analysis had revealed the presence of a nerve agent.1 On 12 March the British Prime Minister, Theresa May, told parliament that the nerve agent used was a member of the novichok family and detailed the British Government’s view that Russia was culpable for the attack.2

In the months that followed, a thorough police response—involving around 250 detectives who reviewed many thousands of hours of CCTV footage and took more than 1400 statements—together with the results of a forensic science investigation produced sufficient evidence for the Director of Public Prosecutions to bring charges against two Russian nationals, Alexander Petrov and Ruslan Boshirov.3 The charges were: (a) conspiracy to murder Sergey Skripal; (b) the attempted murder of Sergey and Yulia Skripal and Nick Bailey; (c) the use and possession of novichok; and (d) causing grievous bodily harm with intent to kill Yulia Skripal and Nick Bailey. European arrest warrants were issued in the names of Petrov and Boshirov, although May informed parliament that the police assumed that these names were aliases. She also informed parliament that both suspects were officers of Russian military intelligence, known as the GRU.4 By early October, investigations by Bellingcat—an investigative research network that uses open sources and social media—suggested that Ruslan Boshirov was Anatoliy Chepiga, a GRU

4 British House of Commons (note 3), col. 167.
officer, and that Alexander Petrov was Alexander Yevgenyevich Mioshkin, a doctor employed by the GRU.\textsuperscript{5}

Accurate and reliable public information about novichok nerve agents, such as facts about their history, possessors, chemical composition and properties, is limited. Much of the available information comes from former participants in the Soviet chemical warfare programme, particularly Dr Vil Mirzayanov, who describes himself as a ‘veteran of the Soviet chemical weapons complex’.\textsuperscript{6} In part, the limited amount of information in the public domain is because the agents seem to have originated from secret research. However, from what is in the public domain, it can be surmised that novichok (Russian for ‘newcomer’) is the name given to a series of chemical warfare agents developed in the Soviet Union as part of its FOLIANT programme.

Speculation by US and other Western defence officials about the objectives of the development of these nerve agents has included that they were designed to ‘defeat Western detection and protection measures’ and to be more readily hidden ‘within a legitimate commercial industry’, thereby enabling circumvention of the newly developing international controls on chemical weapons (CWs).\textsuperscript{7} Information in the public domain about these agents can be traced to newspaper articles in 1991 and 1992.\textsuperscript{8} They were raised, for example, during the Chemical Weapons Convention (CWC) ratification debate in the USA, when a number of newspaper articles referred directly to their existence. A \textit{Washington Times} article on Russian CWs, for example, claimed to quote extensively from the classified US Department of Defense publication \textit{Military Intelligence Digest}.\textsuperscript{9} Nonetheless, because of the lack of reliable information about these agents, in early May 2018 the Director-General of the Organisation for the Prohibition of Chemical


Weapons (OPCW) requested states parties to provide information on new types of nerve agents.\(^\text{10}\)

**National, international and institutional responses**

*The British and Russian responses*

There had already been speculation about a Russian connection with the poisonings in Salisbury before May told parliament on 12 March:

Based on the positive identification of this chemical agent by world-leading experts at the Defence Science and Technology Laboratory at Porton Down, our knowledge that Russia has previously produced this agent and would still be capable of doing so, Russia's record of conducting state-sponsored assassinations and our assessment that Russia views some defectors as legitimate targets for assassinations, the Government have concluded that it is highly likely that Russia was responsible for the act against Sergei and Yulia Skripal.\(^\text{11}\)

In a further briefing to parliament on 14 March, May announced that the UK's National Security Council had agreed a number of immediate actions, including the expulsion of ‘23 Russian diplomats who have been identified as undeclared intelligence officers’.\(^\text{12}\) In the following weeks, more than 150 Russian diplomats were expelled from 27 countries and from Brussels by the North Atlantic Treaty Organization (NATO). Other countries, such as Luxembourg, as well as the European Union (EU) chose to recall their ambassadors.\(^\text{13}\)

Russia responded with tit-for-tat diplomatic expulsions and called the UK's reaction an attempt ‘to stoke with a renewed force the anti-Russia hysteria and campaign’.\(^\text{14}\) May suggested that there were ‘only two plausible explanations for what happened … either this was a direct act by the Russian state against our country; or the Russian Government lost control of their potentially catastrophically damaging nerve agent and allowed it to get into the hands of others’.\(^\text{15}\) In response, Russian Government officials and media presented other potential explanations. The Director of the Russian Foreign Ministry Department for Non-Proliferation and Arms Control, Vladimir Yermakov, stated that ‘Logic suggests two possible variants. Either the British

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\(^{10}\) OPCW, Technical Secretariat, ‘Request for information from states parties on new types of nerve agents’, Note by the Director-General, S/1621/2018, 2 May 2018.

\(^{11}\) British House of Commons (note 2).


\(^{15}\) British House of Commons (note 12), col. 855.
authorities are unable to ensure protection against such terrorist attacks on their territory, or they were directly or indirectly involved in the preparation of this attack on a Russian citizen’. 16 Although Yermakov claimed there was no alternative to the two variants he had just proposed, many alternative narratives were suggested. 17

**Political discussions in the OPCW**

Ambassador Peter Wilson of the UK briefed the OPCW Executive Council on the Salisbury incident in The Hague, the Netherlands, on 13 March, calling it ‘the first offensive use of a nerve agent of any sort on European territory since World War II’. 18 Noting what the British Prime Minister had told parliament the day before, including her request for the Russian Government to explain how this toxic chemical could have been deployed in Salisbury, Ambassador Wilson informed the Executive Council that the OPCW had offered technical assistance to the UK. 19

Ambassador Alexander Shulgin of Russia responded by describing the accusations of Russian involvement as ‘unfounded’ and ‘absolutely unacceptable’. 20 News that the UK was accepting an offer of OPCW technical assistance came the following day and on 16 March a letter formally requesting technical assistance under Article VIII, paragraph 38e, was circulated to all states parties. 21 The OPCW Director-General later informed the Executive Council that an advance team had been deployed to the UK on 19 March for preliminary discussions about the technical assistance, and the full team was deployed on 21 March. 22

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17 See e.g. United Nations, Security Council, Statement by Ambassador Karen Pierce, UK Permanent Representative to the UN, Provisional record of the 8343rd meeting, S/PV.8343, 6 Sep. 2018, p. 13. The day before, Theresa May updated parliament on the Salisbury incident and the charges brought against 2 Russian nationals. She too noted the multiple narratives. See British House of Commons (note 3), col. 167.


22 OPCW, Executive Council, ‘Update by the Director-General to the Executive Council at its Fifty-seventh meeting’, EC-M-57/DG.1, 4 Apr. 2018, para. 3.
At the beginning of April, the Russian delegation sent a list of questions to the British authorities via the OPCW Technical Secretariat regarding ‘the fabricated “Skripal case”’.\(^{23}\) These included a request for the name of the head of the Technical Assistance Team and the names of the certified laboratories that would analyse the samples. The Director-General later told Executive Council members that: ‘In keeping with its standard practice, the Secretariat does not disclose the identities of members of teams or mission planning details to states parties other than the state party hosting the technical assistance visit.’\(^{24}\) The 57th meeting of the Executive Council, held on 4 April, was requested by Russia in order to address ‘the situation around allegations of non-compliance with the Convention made by one state party against the other state party with regard to the incident in Salisbury’\(^{25}\).

In the publicly available, tense exchanges that followed, the British delegation commented that ‘we were unsighted as to Russia’s intentions behind today’s session … Indeed our Permanent Representative is … overseas’.\(^{26}\) Recalling that Russia had failed to provide answers to the questions posed to it, the delegation described the ‘more than 24 contradictory and changing counter narratives’ that had since emerged as ‘shameless [and] preposterous’.\(^{27}\) In the Russian delegation’s statement, Professor Dr Rybalchenko, a Russian Ministry of Defence chemical sciences expert, queried the idea that novichok nerve agents could be attributed in origin solely to Russia, arguing that a review of the open literature suggests that any such notion is ‘incorrect, and . . . essentially absurd’.\(^{28}\) Rybalchenko claimed that:

> With the structural formulas and the synthesis diagrams available, any modern chemical laboratory with the requisite special equipment, level of protection, and sufficiently qualified staff can synthesise and conduct research on ‘Novichok’-type substances. All synthesis pre-products for these compounds are commercially available to many States.\(^{29}\)


\(^{24}\) OPCW (note 22), para. 3.

\(^{25}\) Russian Federation, Letter from the Permanent Mission of the Russian Federation to the Chairmanperson of the Executive Council, as annexed in OPCW, Executive Council, ‘Request by the Russian Federation to convene a meeting of the Executive Council’, Note by the Director-General, EC-M-57/1, 30 Mar. 2018. According to Rule 12 of the Executive Council’s Rules of Procedure, the Executive Council meets in regular sessions and between those regular sessions it can meet as often as is required for the fulfilment of its powers and functions. As a result, each member of the Council needs to be prepared, at short notice, to attend meetings of the Council. In 2018 there were 3 regular Sessions of the Council and 5 meetings.

\(^{26}\) OPCW (note 21), p. 1.

\(^{27}\) OPCW (note 21), p. 2.


\(^{29}\) OPCW (note 28), p. 4.
Speaking shortly afterwards, Ambassador Shulgin argued that the CWC contains no provision that allows for the sort of technical assistance being received by the UK.\textsuperscript{30} He went on to propose a joint UK–Russia inquiry into the Salisbury incident and declared that Russia would ‘recognise the conclusions of any investigation … if it is based on irrefutable facts and evidence in compliance with all existing procedures of international law and with the mandatory participation of the Russian side’.\textsuperscript{31} Some states parties, such as Panama, urged Russia and the UK to ‘engage in constructive dialogue’.\textsuperscript{32} Others, such as Canada, advised Council members to ‘recognise Russia’s draft decision for what it is: a time-wasting attempt at legal obfuscation, meant to deflect international attention from its failure to respond credibly to direct requests by the UK for an explanation of Russian involvement in the Salisbury incident’.\textsuperscript{33} The draft decision received only six positive votes and was therefore defeated.\textsuperscript{34}

Political discussions in the UN Security Council and the First Committee

Ambassador Vassily Nebenzia of Russia reiterated Russia’s position to the United Nations Security Council on 14 March—that allegations of its involvement in the Salisbury incident were ‘unfounded’ and ‘totally unacceptable’.\textsuperscript{35} On 18 April the Security Council was informed by the High Representative for Disarmament Affairs, Izumi Nakamitsu, of the findings of the OPCW’s Technical Assistance Team Visit report. In response, Ambassador Nebenzia commented: ‘Today we heard the same series of unsubstantiated accusations, now allegedly backed up by the authority of the [OPCW].’\textsuperscript{36} He proceeded to identify what in his opinion were flaws in the report. Ambassador Nebenzia’s claim that the accusations were unsubstantiated continued throughout the period covered by this chapter. In his response on 6 September to news that arrest warrants had been issued for two Russian citizens, he called the British case ‘the same litany of lies’ and suggested that


\textsuperscript{31} OPCW (note 30), p. 6.


\textsuperscript{33} OPCW, Executive Council, ‘Statement by HE Ambassador Sabine Nolke, Permanent Representative of Canada to the OPCW at the 57th Meeting of the Executive Council 4 April 2018’, 4 Apr. 2018.

\textsuperscript{34} British Foreign and Commonwealth Office, ‘Foreign Secretary Boris Johnson responds to defeat of Russia’s proposals at OPCW’, Press release, 4 Apr. 2018.


this was ‘just as cooked up and far-fetched as the previous acts’.\textsuperscript{37} He declared that: ‘The Russian Federation has never developed, produced or stockpiled the toxic chemicals referred to in the West as Novichok’.\textsuperscript{38} Nebenzia concluded his intervention by suggesting once again that these accusations were in response to Russia’s stance on Syria:

The incident on 4 March became a useful pretext to whip up anti-Russian hysteria, and was used to undermine our authority as a State party to the Chemical Weapons Convention on the eve of the staged use of chemical weapons in the Syrian city of Douma. We are seeing a similar picture today. The statement by Theresa May on 5 September took place . . . around the situation in Idlib, which is being actively discussed, and the chemical-weapon provocation that the militants, together with the White Helmets, have been preparing there.\textsuperscript{39}

Divisions in the UN Security Council and the OPCW were similarly reflected in the 73rd Session of the UN First Committee, which met in New York between 8 October and 8 November 2018. Around 50 statements referenced CWs during the general debate, condemning to various degrees their use, including in Salisbury. In its statement, Iran stated that the divisions in the OPCW ‘must be settled’ to avoid inflicting ‘lasting damage on the Convention’.\textsuperscript{40} Brazil similarly regretted the ‘sapping of the culture of consensus in the policymaking bodies of the organization’.\textsuperscript{41} Reflecting these divisions, the annual draft resolution on the CWC put forward by Poland, which is normally agreed by consensus, required a vote on approval for forwarding to the General Assembly. The results of the vote were 148 in favour and 7 against (Cambodia, China, Iran, Nicaragua, Russia, Syria and Zimbabwe) with 23 abstentions.\textsuperscript{42} A vote was also required when the General Assembly considered the resolution on 5 December, which was recorded as 152 in favour and 7 against (Cambodia, China, Iran, Nicaragua, Russia, Syria and Zimbabwe) with 22 abstentions.\textsuperscript{43}

\textsuperscript{38} United Nations (note 37), p. 11.
\textsuperscript{39} United Nations (note 37), p. 11.
\textsuperscript{40} United Nations, General Assembly, ‘Statement by HE Mr Eshagh Al Habib, Ambassador and Permanent Representative of the Islamic Republic of Iran to the United Nations, before the First Committee of the United Nations General Assembly on all disarmament and international security agenda items’, New York, 15 Oct. 2018, p. 3.
\textsuperscript{42} United Nations, General Assembly, ‘First Committee sends 8 drafts to General Assembly, including text aimed at identifying, holding perpetrators of chemical weapons use accountable’, Press release, 5 Nov. 2018.
The OPCW response

The main response from the Technical Secretariat with regard to the Salisbury incident came in the form of two technical assistance visits to the UK, at its request, which were conducted in March and July–August 2018. A publicly available summary report shows that during the first technical assistance visit on 21–23 March, the team visited specific locations in Salisbury ‘identified as possible hot-spots of residual contamination’ and collected several environmental samples.\(^{44}\) Biomedical samples, in the form of blood samples, were also taken from the three individuals exposed to the nerve agent.\(^{45}\) The report notes that the results of the analysis by OPCW-designated laboratories of environmental and biomedical samples collected by the OPCW team ‘confirm the findings of the United Kingdom relating to the identity of the toxic chemical that was used in Salisbury and severely injured three people’.\(^{46}\) In addition, ‘the toxic chemical was of high purity’ due to the ‘almost complete absence of impurities’.\(^{47}\)

Following the associated event in nearby Amesbury on 30 June, a second technical assistance visit was conducted at the UK’s request. A report on the second visit was circulated to states parties on 4 September 2018 and a summary report placed on the public website.\(^{48}\) The summary report notes that technical assistance visits took place on 15–18 July to collect biomedical samples and on 13 August 2018 to obtain an additional environmental sample. During the August visit the team collected a sample from the contents of a small bottle that the police regarded as a suspect item. Subsequent analysis by the OPCW-designated laboratories concluded that Charles Rowley and Dawn Sturgess had been ‘exposed to and intoxicated by’ the toxic chemical found in the environmental sample.\(^{49}\) In addition, the toxic chemical was at ‘a concentration of 97–98% [and so] is considered a neat agent of high purity’.\(^{50}\)

The analysis concluded:

The results of the analysis conducted by the OPCW Designated Laboratories of environmental and biomedical samples collected by the OPCW team confirm the findings of the United Kingdom relating to the identity of the toxic chemical that intoxicated Mr Charles Rowley and Ms Dawn Sturgess. The toxic chemical compound,

\(^{44}\) OPCW, Technical Secretariat, ‘Summary of the report on activities carried out in support of a request for technical assistance by the United Kingdom of Great Britain and Northern Ireland (technical assistance visit TAV/02/18)’, Note by the Technical Secretariat, S/1612/2018, 12 Apr. 2018, para. 5.

\(^{45}\) OPCW (note 44), para. 4.

\(^{46}\) OPCW (note 44), para. 10.

\(^{47}\) OPCW (note 44), para. 11.

\(^{48}\) OPCW, Technical Secretariat, ‘Summary report on the activities carried out in support of the request for technical assistance by the United Kingdom of Great Britain and Northern Ireland (Technical Assistance Visit TAV/02/18 and TAV/03B/18 “Amesbury incident”)’, Note by the Technical Secretariat, S/1671/2018, 4 Sep. 2018.

\(^{49}\) OPCW (note 48), para. 8.

\(^{50}\) OPCW (note 48), para. 10.
which displays the toxic properties of a nerve agent, is the same toxic chemical that was found in the biomedical and environmental samples relating to the poisoning of Sergei and Yulia Skripal and Mr Nicholas Bailey on 4 March 2018 in Salisbury.51

**Competing narratives and the role of information warfare in the attribution of responsibility**

A notable feature of the responses to the Salisbury incident was the use of different forms of media to garner support for explanations of how novichok came to be used in Salisbury. In the weeks immediately following the incident, numerous and confusing counternarratives to the idea that Russia was involved were disseminated on both traditional media and social media platforms. The counternarratives to the Salisbury incident also began to merge with counternarratives to other CW use allegations, such as those concerning Douma.52 Some of the counter narratives broadcast by the RT television network were later found to have breached UK broadcasting standards by failing to preserve due impartiality in seven news and current affairs programmes aired between 17 March and 26 April.53

In addition to offering potential counternarratives to Russian involvement in the Salisbury incident, efforts were made to cast doubt on the results of the OPCW analysis of samples. Speaking at the 26th Council for Foreign and Defence Policy in Moscow on 14 April, the Russian Foreign Minister, Sergey Lavrov, claimed to be quoting sections of what he described as the Spiez Laboratory report to the OPCW, which had been ‘obtained on condition of confidentiality’.54 Lavrov claimed that the samples ‘indicate traces of the toxic chemical BZ and its precursor which are second category chemical weapons . . . This composition was in operational service in the armies of the US, the UK and other NATO countries. The Soviet Union and Russia neither designed nor stored such chemical agents’.55 Attempting to cast doubt on the findings with regard to the recovery of Sergey Skripal, Yulia Skripal and

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51 OPCW (note 48), para. 11.
53 Beginning in Apr. 2018, Ofcom, the British regulator of communications services, launched an investigation into 10 programmes that ‘were broadcast in a period of approximately seven weeks between 17 March 2018 and 4 May 2018, in the wake of the poisoning of the former FSB secret service officer, Sergei Skripal and his daughter Yulia in Salisbury on 4 March 2018’. Ofcom found that the news channel RT had broken broadcasting rules and was ‘minded to consider imposing a statutory sanction’. See Ofcom, ‘Update on investigations into the RT news channel’, Media release, 20 Dec. 2018.
55 Russian Ministry of Foreign Affairs (note 54).
Detective Sergeant Nick Bailey, Lavrov suggested that the ‘clinical pattern corresponds more to the use of BZ agent’.\(^{56}\)

At the Executive Council meeting that followed four days after this statement, the Director-General explained that the precursor of BZ ‘was contained in the control sample prepared by the OPCW Lab in accordance with the existing quality control procedures’.\(^{57}\) The Swiss delegation expressed its ‘incomprehension’ of Lavrov’s statement:

Whether or not Spiez Laboratory was one of the designated laboratories involved in the analysis of the Salisbury samples, an analysis report of our designated laboratory would not have been drafted in the way and contained the type of language alleged to be a quote from a Spiez Laboratory report . . . Such actions weaken the credibility and integrity of this Organisation and are as such unacceptable.\(^{58}\)

\(^{56}\) Lavrov claimed to be using the actual words from the laboratory report, but this is doubtful, not least for the reasons set out by the Swiss delegation. Russian Ministry of Foreign Affairs (note 54).

\(^{57}\) OPCW, Executive Council, ‘Opening statement by the Director-General to the Executive Council at its Fifty-ninth meeting’, EC-M-59/DG.1, 18 Apr. 2018, p. 3.

\(^{58}\) OPCW, Executive Council, ‘Statement by Nadine Olivier Lozano, Deputy Permanent Representative of Switzerland to the OPCW at the Fifty-ninth Meeting of the Executive Council, Under Agenda item 3, Report on the activities carried out in support of a request for technical assistance by the United Kingdom of Great Britain and Northern Ireland (TAV/02/18)’, EC-M-59/NAT.2, 18 Apr. 2018, p. 2.
III. Chemical weapons: Arms control and disarmament

CAITRÍONA MCLEISH

The 1993 Chemical Weapons Convention (CWC) provides the principal international legal basis for the prohibition of chemical warfare. In 2018 the CWC entered into force for one new state: Palestine. As of December 2018 there were 193 states parties to the Convention, which is implemented by the Organisation for the Prohibition of Chemical Weapons (OPCW).

In June 2018, an international Symposium on Medical Treatment of Chemical Warfare Victims was convened at OPCW headquarters in The Hague, the Netherlands. It was attended by more than 50 scientists, clinicians, experts, academics and civil society representatives from around the world. The symposium focused on various challenges associated with providing medical assistance to victims of chemical warfare, with a special focus on the long-term effects on health and the treatment required. Participants prepared a symposium declaration, which made recommendations on how the OPCW Technical Secretariat and the International Support Network for Victims of Chemical Weapons could most usefully provide support for victims of chemical weapons (CWs).

On 25 July 2018, Ambassador Fernando Arias of Spain began his four-year term as Director-General of the OPCW, having been appointed by the 2017 Conference of the States Parties (CSP). He succeeded Ambassador Ahmet Üzümcü of Turkey, who completed his second term as Director-General the day before. Ambassador Arias is the fourth Director-General of the OPCW since its establishment in 1997.

As of 15 November 2018, 56 states parties had registered with and were actively using the Secure Information Exchange (SIX) system, which was launched in June 2014 for the transmission of declarations and related documentation. In the same month, the Technical Secretariat released the 2018 edition of the Handbook on Chemicals and a new version of the Online Scheduled Chemicals Database. Both have been expanded to include the

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1 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 (Chemical Weapons Convention, CWC), see annex A, section I, in this volume.


3 Israel has signed but not ratified the CWC, while Egypt, North Korea and South Sudan remain non-signatories.


scheduled chemicals declared by states parties between 2014 and 2017, as well as those scheduled chemicals registered by the Chemical Abstracts Service in the same time period.\textsuperscript{6}

**OPCW developments**

Throughout 2018, the agenda of the OPCW Technical Secretariat continued to be dominated by investigations of allegations of new and continuing use of CWs in Syria and elsewhere, and by attempts to confirm the completeness and correctness of Syria’s declaration. Both issues exacerbated tensions between Western countries and Russia, and placed unprecedented institutional stresses on the OPCW that played out at the three main conferences held during the year—the Fourth CWC Review Conference and two sessions of the CSP, one routine and one special.

*The Fourth Special Session of the Conference of the States Parties*

At the request of the Permanent Representatives of Australia, Bulgaria, Canada, France, Germany, Japan, New Zealand, Poland, Romania, the United Kingdom and the United States, a special session of the CSP was held on 26–27 June.

The convening of this special session was not supported by all states parties. China, Iran, Russia, Syria and Venezuela issued a statement to the Executive Council expressing ‘doubt that the requesting member-states are really concerned about fulfilling their commitments under the Convention’.\textsuperscript{7} Nonetheless, the special session took place with Ambassador Abdelouahab Bellouki of Morocco in the chair. The first day was held in public and the second in private.

In his opening statement to the Special Session, the Director-General noted that the meeting took place against a background of international public opinion that was ‘increasingly restive, alarmed at the failure of the relevant world fora to hold those responsible accountable for their actions’.\textsuperscript{8} Reminding the assembled states parties that ‘if accountability is avoided, the potential re-emergence and acceptance of chemicals as weapons of war and terror will not be deterred’, the Director-General called on the conference to ‘forge unity’.\textsuperscript{9}

\textsuperscript{7} OPCW, Executive Council, ‘Joint Statement on behalf of the People’s Republic of China, the Islamic Republic of Iran, the Russian Federation, the Syrian Arab Republic and the Bolivarian Republic of Venezuela’, EC-M-60/NAT.1, 4 June 2018, p. 2.
\textsuperscript{9} OPCW (note 8), pp. 2, 3.
Table 8.1. Votes for and against the revised draft decision ‘addressing the threat from chemical weapons’ at the Fourth Special Session of the Conference of the States Parties, 27 June 2018

<table>
<thead>
<tr>
<th>For the decision (82 votes)</th>
<th>Against the decision (24 votes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania, Andorra, Australia, Austria, Bahrain, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Chile, Colombia, Cook Islands, Costa Rica, Côte d’Ivoire, Croatia, Cyprus, Czechia, Denmark, Dominican Republic, Estonia, Fiji, Finland, France, Georgia, Germany, Ghana, Greece, Guyana, Honduras, Hungary, Iceland, Ireland, Italy, Japan, Republic of Korea, Kuwait, Latvia, Liberia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malawi, Malta, Mexico, Moldova, Monaco, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Papua New Guinea, Peru, Poland, Portugal, Qatar, Romania, Saint Kitts and Nevis, Saint Lucia, Samoa, San Marino, Saudi Arabia, Seychelles, Singapore, Slovakia, Slovenia, Solomon Islands, Spain, Sweden, Switzerland, Togo, Tonga, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Vanuatu</td>
<td>Belarus, Bolivia, Botswana, Burundi, Cambodia, China, Eritrea, India, Iran, Kazakhstan, Laos, Myanmar, Namibia, Nicaragua, the Philippines, Russia, South Africa, Sudan, Syria, Tajikistan, Uganda, Uzbekistan, Venezuela, Viet Nam</td>
</tr>
</tbody>
</table>

Four days before the session began, the UK submitted a revised draft decision supported by 30 other countries on ‘addressing the threat from chemical weapons use’. This resulted in five proposed amendments, all of which were defeated. Burundi submitted a competing draft decision for consideration but this was subsequently withdrawn following the result of the vote on the UK-led draft decision, which was 82 in favour and 24 against with 26 abstentions (see table 8.1).

10 OPCW, Conference of the States Parties, ‘Report of the Fourth Special Session of the Conference of the States Parties’, C-SS-4/3, 27 June 2018, para. 3.4. The 30 other countries that proposed draft decision C-SS-4/DEC/CRP1/Rev1, 22 June 2018, were: Albania, Australia, Belgium, Bulgaria, Canada, Denmark, Estonia, Finland, France, Georgia, Germany, Iceland, Ireland, Japan, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, New Zealand, Norway, Poland, Portugal, the Republic of Moldova, Romania, Slovakia, Slovenia, Sweden, Turkey and the USA.

11 OPCW (note 10), paras. 3.6–3.10. Proposed amendments were submitted by Kazakhstan (OPCW document C-SS-4/DEC/CRP5), Belarus (OPCW document C-SS-4/DEC/CRP6), Venezuela (OPCW document C-SS-4/DEC/CRP7), Iran (OPCW document C-SS-4/DEC/CRP9) and Burundi (OPCW document C-SS-4/DEC/CRP10). The voting record is recorded as follows: Kazakhstan amendment, 22 in favour, 76 against; Belarus amendment, 23 in favour, 78 against; Venezuela amendment, 21 in favour, 78 against; Iran amendment 19 in favour, 79 against and the Burundi amendment 23 in favour, 78 against.

12 OPCW (note 10), para. 3.16.
The decision, which became known as ‘the June decision’, has two main parts. The first concerns Syria and empowers the OPCW to attribute responsibility for CW attacks there—both those that have already taken place and, if needed, attacks in the future. The decision also authorizes the OPCW to share its information with all relevant UN investigatory mechanisms. The second part goes beyond Syria. It mandates the Director-General to make proposals to the next sitting CSP on establishing an independent, impartial expert arrangement for identifying those responsible for the use of CWs, if requested by a state party that is investigating possible CW use on its territory. The Director-General is also empowered to enlist the assistance of external experts with relevant experience if they are required. The decision even allows for additional action by the OPCW to provide further assistance to states parties in order to help prevent the threat posed by non-state actors.

Speaking on behalf of the European Union (EU) after the decision had been adopted, Bulgaria called it a ‘welcome achievement’. However, not all the states parties concurred. Russia, for example, expressed its ‘categorical disagreement with the decision taken’, arguing that ‘only the United Nations Security Council has the prerogative to take coercive measures when it comes to States, and attribution is one of the most important elements of that competency’. Iran argued similarly that: ‘The Convention has not given the right or obligation of attributing the responsibility of the use of chemical weapons to the Director General or Technical Secretariat.’ Syria gave eight reasons why it had voted against the draft decision, among which were that the decision was ‘politicized’, went beyond the provisions of the CWC, was ‘based on deceit’, and ‘was adopted under threat and intimidation by the States that have submitted it’.

**The build-up to the 23rd Conference of the States Parties**

The 89th Session of the Executive Council was held on 9–12 October 2018. Its purpose, among other things, was to consider the Draft Programme and

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Budget of the OPCW for 2019, which included projections on the resources required to implement the June decision.

In his opening statement to the Executive Council, the Director-General told states parties that five days before, he had been briefed by the Dutch Ministry of Foreign Affairs about an action by the Netherlands Defence Intelligence and Security Service on 13 April to disrupt a cyber operation targeting the OPCW. He assured them that the Secretariat had found ‘no evidence of information compromise’. Nonetheless, the Director-General advised states parties that the draft budget and programme of work included a proposal for a ‘special capital investment fund . . . to fund additional acquisitions of IT security tools and services’. The delegation of the Netherlands referred interested parties to a letter that the Dutch Minister of Defence had sent to the Dutch Parliament, in which she stated that on 13 April:

Russian Military Intelligence [GRU] officers had moved to a location close to the OPCW headquarters in The Hague and were making preparations to hack into OPCW networks. The officers were in possession of specialist equipment with which to intercept and manipulate Wi-Fi traffic. In order to protect the integrity of the OPCW, DISS [the Netherlands Defence Intelligence and Security Service] pre-empted the GRU cyber operation and escorted the Russian intelligence officers out of the Netherlands that same day.

The publicly available national statements from the 89th session indicate a division among the states parties between those that explicitly referenced their concern at the news (mainly Western countries) and considered it an attack on the integrity of the OPCW and its work, and those that made no reference to the incident. For example, the OPCW public website has no comment on the issue from the Russian delegation.

On the matter of the draft budget, a similar division arose as those states parties which had opposed the June decision now opposed the corresponding lines in the budget. According to the meeting report, a vote on the Draft Programme and Budget resulted in 27 in favour and 5 against with 8 abstentions. Consequently, the draft decision was not adopted. The report on the session also noted that a Russian draft decision on the matter of the

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18 OPCW (note 17), para. 8.
20 See e.g. OPCW, Executive Council, ‘Statement by Ambassador Dr Alireza Jahangiri, Permanent Representative of the Islamic Republic of Iran to the OPCW at the Eighty-Ninth Session of the Executive Council’, 9 Oct. 2018.
budget and programme of work failed to be adopted after voting resulted in six in favour and 21 against with 13 abstentions.\textsuperscript{22}

On 16 October 2018, Canada, the Netherlands and the USA submitted a ‘Joint Proposal by Canada, the Netherlands, and the United States of America for a Technical Change to Schedule 1 of the Annex on Chemicals to the Chemical Weapons Convention’. The proposal was communicated to all states parties on 25 October, but this communication note is not available on the public website.\textsuperscript{23} Ambassador Kenneth Ward of the USA told the 89th Session of the Executive Council that:

This proposal is being made to ensure that the Chemical Weapons Convention specifically and concretely addresses the type of chemical warfare agent used in Salisbury and identified by the Scientific Advisory Board in its recent report. This agent and its associated families have no known use for purposes not prohibited by the Chemical Weapons Convention and should be listed as Schedule 1 chemical families.\textsuperscript{24}

On 7 December, the Director-General announced that a meeting of the Executive Council would be convened on 14 January 2019 to address the proposal.\textsuperscript{25} In late November, the Secretariat also received five proposals to change the Annex on Chemicals from the Russian Federation.\textsuperscript{26} The evaluation of these proposals by the Secretariat went into January 2019.

\textit{The 23rd Conference of the States Parties}

The 23rd Session of the CSP was held against this tense backdrop, with Ambassador Bellouki of Morocco in the chair. The session was scheduled for the two days immediately before the Fourth CWC Review Conference. It was tasked, among other things, with making decisions on matters related to the Programme and Budget of the OPCW for 2019, on which no consensus had been reached in the Executive Council.\textsuperscript{27}

In response to the Director-General’s proposals on implementation of the decision made at the Special Session, China and Russia submitted a draft decision on ‘Preserving the Integrity of the Organisation for the Prohibition of Chemical Weapons’ that called for an open-ended working group to be

\begin{footnotes}
\item[22] OPCW (note 21), para. 9.11.
\item[23] Date as reported in OPCW, Executive Council, ‘Report by the Director-General, Financial, administrative, and programme and budget implications of the follow-up activities related to the adoption of the Joint Proposal under item 3 of the provisional agenda of the Sixty-second Meeting of the Executive Council’, EC-M-62/DG.2, 10 Jan. 2019, para. 1.
\item[25] OPCW, Executive Council, ‘Notification of a meeting of the Executive Council’, Note by the Director-General, EC-M-62/1, 7 Dec. 2018, para. 2.
\item[27] OPCW, Conference of the States Parties, ‘Provisional Agenda for the Twenty-third Session of the Conference of the States Parties’, Note by the Director-General, C-23/1, 11 July 2018.
\end{footnotes}
convened by the Executive Council to review proposals on implementation of the June decision. The draft decision failed to be adopted, with 30 votes in favour, 82 against and 31 abstentions in a roll-call vote.\footnote{OPCW, Conference of the States Parties, ‘Report of the Twenty-third Session of the Conference of the States Parties’, C-23/5, 29 Nov. 2018, paras 8.12–8.16.}

Three amendments to the proposed programme and budget for 2019 were proposed by Iran and Russia, which forced each of them to a vote. After each of these amendments had failed to be adopted, the Draft Programme and Budget was passed with 99 votes in favour, 27 against and 18 abstentions.\footnote{OPCW (note 28), paras 12.1–12.5.} A further voting session was needed to adopt the draft decision on the establishment of a Special Fund for IT Infrastructure to Support the Implementation of C-SS-4/DEC.3 (the June decision), which was passed with 94 votes for and 26 against, with 23 abstentions.\footnote{OPCW (note 28), paras 15.3–15.4.}

The 23rd CSP was suspended on 20 November because it was unable to reach agreement on adoption of a final report. Just before the suspension, the USA had submitted a proposal to insert a footnote that read: ‘Some states parties do not legally recognise the “State of Palestine” as a state and therefore do not recognise it as a state party to the Chemical Weapons Convention.’\footnote{Guthrie, R., ‘The second day of the Conference of States Parties: Voting and suspension’, CWC Review Conference Report, no. 3, 21 Nov. 2018, p. 2.} The proposed new text was not well received.\footnote{Guthrie (note 31), p. 2.} When the meeting reconvened on 29 November, the penultimate day of the Review Conference, a revised version of the final report was introduced that contained an acceptable formulation of words. In a session that lasted just 14 minutes, the revised report was introduced, considered as a whole and adopted.\footnote{Guthrie, R., ‘The penultimate day of the Review Conference and closure of the CSP’, CWC Review Conference Report, no. 10, 30 Nov. 2018, p. 2.}

The Fourth CWC Review Conference

Ambassador Fernando Arias began his opening statement to the Fourth CWC Review Conference, his first Review Conference as Director-General, by setting out some milestones in the OPCW’s work since the Third Review Conference in April 2013.\footnote{OPCW, Review Conference, ‘Opening statement by the Director-General to the Fourth Special Session of the Conference of the States Parties to review the operation of the Chemical Weapons Convention’, RC-4/DG.5, 21 Nov. 2018.} He highlighted: (a) conclusion of the destruction of declared CW stockpiles in Russia, as well as destruction of declared stockpiles in Syria, Libya and Iraq; (b) the ‘landmark [June] decision’ taken at the Special Session; (c) investigations into alleged CW use and the establishment of the fact-finding missions (FFMs); and (d) the OPCW winning the Nobel Peace Prize.\footnote{OPCW (note 34), paras 6, 11, 12–15, 16.} However, he also noted that the OPCW
stood ‘at a crucial juncture’ and ‘must resolutely guard against breaches of the Convention’s norms’.36

Continuing this theme, the UN Secretary-General’s message to the Review Conference, as conveyed by the UN High Representative for Disarmament Affairs, Izumi Nakamitsu, noted that the period since 2013 had been marked by ‘remarkable achievements as well as painful tragedy’. He described the recent use of CWs as ‘abhorrent’ and ‘unacceptable’ and a direct threat to ‘the disarmament and non-proliferation regimes’, and emphasized that the need to identify those responsible and hold them to account was ‘paramount’.37

Allegations of use, investigations into alleged use and the decision by the Special Session resulted in divergent views being expressed in the General Debate, which lasted for three days. Well-rehearsed positions on the issue of investigations into alleged use were also evident in statements on related aspects. On the FFMs, for example, Russia suggested that ‘the time has come for a drastic revision of the Terms of Reference’.38 Germany called the activities of FFMs ‘professional and impartial’.39

However, it was in statements surrounding issues of attribution of responsibility where the most strongly divergent views were found. Supporters of the June decision considered attribution of responsibility to be within the scope of the CWC, whereas those opposed to the decision expressed the view that such attribution would require an amendment conference. For example, the UK claimed that ‘supporting OPCW attribution is not about choosing sides in big power politics, it is about restoring the global taboo against chemical weapons’.40 The USA stated that the additional tools that the decision gives the OPCW ‘should serve as a deterrent for State and non-State actors considering the use of chemical weapons in the future’.41

In contrast, the Ambassador for Malaysia expressed his delegation’s view that ‘the decision to assign the OPCW with an attribution mandate was, for all intents and purposes, a “rushed job”’ and called the new mechanism

36 OPCW (note 34), paras 17, 21.
37 OPCW, ‘RC-4, Day 1, Morning, the Fourth Review Conference’, YouTube, 21 Nov. 2018.
‘amorphous’. Russia called the decision ‘illegitimate’ and a ‘destructive step with regard to the chemical disarmament and non-proliferation regime which has been evolving for decades’.

Adding to this already tense atmosphere were allegations made by the USA about the possession of CWs, including its ‘longstanding concerns that Iran maintains a chemical weapons programme that it failed to declare to the OPCW’ and is ‘pursuing central nervous system-acting chemicals for offensive purposes’. Iran used its right of reply to refute these allegations.

Divergence of views with regard to the June decision carried over into the second week and the meetings of the Committee of the Whole. Three groupings of states parties emerged: supporters of the June decision, opponents of the June decision and a quiet group of states that either did not have strong inclinations regarding attribution or saw no advantage in speaking out as they could not see any way of bridging the gap between the other two groupings.

The Committee of the Whole, with Ambassador Marcin Czepelak of Poland as chair, began its work on 26 November and reported back to the plenary on its progress in the afternoon of 28 November. During this time, the Committee of the Whole held six meetings to consider the draft provisional text produced by the chair of the Open-Ended Working Group for the Preparation of the Fourth Review Conference, Ambassador Gusti Agung Wesaka Puja of Indonesia. However, in his report back to the plenary, Ambassador Czepelak noted that:

In the afternoon, on 28 November, when the Committee was approaching the end-point of its proceedings, it became clear that no consensus could be reached on all paragraphs of the draft provisional text within the limited time given to us. While a substantial number of paragraphs were agreed ad referendum in the Committee, there are still outstanding issues, on which fundamental divergence of views continue to exist.

44 OPCW, RC-4/NAT.7 (note 41).
46 Guthrie, R., ‘The sixth day: A committee of the whole or a committee of three parts?’, CWC Review Conference Report, no. 9, 29 Nov. 2018, p. 1.
With the Committee of the Whole unable to achieve a consensus draft text, Ambassador Agustín Vásquez Gómez of El Salvador, Chair of the Review Conference, began a series of informal consultations. A new text, in the name of the chair, was introduced the day before the Review Conference was due to conclude. During that session Ambassador Gómez highlighted some areas where text had been added, such as that ‘the instances of use since the last Review Conference as continuing to be subject to debate and contention’. Other areas included in the chair’s report were central nervous system-acting chemicals, sea-dumped CWs and references to highlight the valuable contribution that civil society organizations make to the OPCW. In the report of the General Committee the following day, it was confirmed that overnight consultations had made it clear that there would be no consensus on a final report from the Conference as the differences in the positions held by the delegations were too great. The chair’s report issued the day before was then issued under rule 50 of the Rules of Procedure.

Many states parties expressed their regret at the inability of the Review Conference to reach consensus, and this was reflected in the introduction of two joint declarations: one by France on behalf of 57 states and one by Russia on behalf of 26 states. The French-led declaration stated that the ‘re-emergence of the use of chemical weapons is the most alarming development we face today’ and called for a range of actions to strengthen implementation of the CWC. In contrast, the Russia-led declaration suggested that disunity within the CWC due to the politicization of the problem of CW use was significantly reducing the efficiency of the OPCW’s work and called for ‘dialogue and consultations among states parties to bridge their division and address their disagreements’ and to explore ‘the possibility of improving the Rules and Procedures of the Conference of States Parties’.

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48 Guthrie (note 33).
49 Guthrie (note 33), p. 1.
Other developments in 2018

The destruction of chemical weapons

As of the end of October 2018, more than 96.5 per cent of declared Category 1 CWs had been verifiably destroyed. The USA is now the only remaining declared possessor state party with a forecast date for the completion of destruction—of September 2023. In 2018 the USA reported that it had finished construction of its final CW destruction facility, at Blue Grass, Kentucky, and that it remains on track to meet its planned completion date.\(^{54}\)

The designated destruction facility in Munster, Germany, completed destruction of all Category 2 CWs shipped from Libya in November 2017. Activities in relation to Libya in 2018 focused on the former CW storage site in Ruwagha Tank Farm. Secretariat inspectors were unable to travel to the site themselves, so four Libyan nationals were trained to collect soil samples and on live video streaming. Sampling operations at the site, under the observation of Secretariat inspectors, began at the end of March 2018 and were concluded on 5 April 2018. The OPCW Secretariat is now facilitating clean-up of the site, which should be completed by August 2019.\(^{55}\)

The destruction of CWs abandoned by Japan on Chinese territory continued at the Haerbaling destruction facility in 2018 and 12 related inspections were conducted. Recovery of significant quantities of old CWs took place in six states parties in Europe: Belgium, France, Germany, Italy, the Netherlands and the UK. Seven inspections of activities in relation to old CWs were conducted in these countries during the year.\(^{56}\)

The OPCW Scientific Advisory Board

In 2018, the OPCW Scientific Advisory Board (SAB) produced four reports and continued its ‘Science for Diplomats’ initiative, on which six events took place. In addition, SAB advice on sample stability and storage was authored by all members of the board and published in October.\(^{57}\) There were also a number of other peer-reviewed publications, many arising from the


\(^{55}\) OPCW, Conference of the States Parties, ‘Opening statement by the Director-General to the Conference of the States Parties at its Twenty-third Session (Full Version)’, C-23/DG.19, 19 Nov. 2018, para. 35.

\(^{56}\) OPCW (note 55), paras 36–38.

2017 OPCW–International Union of Pure and Applied Chemistry (IUPAC) workshop on innovative technologies for chemical security.\textsuperscript{58}

The SAB’s Temporary Working Group (TWG) to consider the practical applications of investigative methods and technologies, which was established in 2017 at the request of the OPCW Director-General, met for the first time in February 2018. The terms of reference for the TWG are to review the science and technology relevant to investigations such as those mandated under Articles IX and X of the CWC, including for the validation of evidence and establishing its provenance (i.e. determining the chronology of ownership, custody and location) and the integration of multiple and diverse sources of evidence to reconstruct past events.\textsuperscript{59} At the first meeting, members received a number of briefings relating to past and current investigations, such as OPCW missions in Syria and those of the OPCW–UN Joint Investigative Mechanism, as well as from a number of external experts. Six sub-groups were established to consider issues such as forensic science methods and capabilities; data collection and management; and sampling, detection and analysis.\textsuperscript{60}

Furthermore, as the Review Conference was to be convened in 2018, the SAB produced a substantive review of scientific and technological developments since the previous conference in a report that was published in April 2018.\textsuperscript{61} In regard to the Schedules of the CWC, the SAB noted that:

As the Fourth Review Conference takes place, all chemicals listed in Schedule 1 have now been in the public domain for more than 35 years . . . Including chemicals in Schedule 1 only when past weaponization and/or stockpiling is a known fact, or when highly toxic compounds have no legitimate uses, carries the inherent risk that the OPCW and its State Parties could be caught by surprise, should any unscheduled chemical(s) be used as [chemical warfare agents] CWAs.\textsuperscript{62}

A few weeks after the publication of the report for the Fourth Review Conference, and ‘in view of the findings from the March 2018 technical assistance


\textsuperscript{59} OPCW, Scientific Advisory Board, ‘Summary of the first meeting of the Scientific Advisory Board’s Temporary Working Group on Investigative Science and Technology’, SAB-27/WP.1, 26 Feb. 2018, para. 5.1.

\textsuperscript{60} OPCW (note 59), pp. 30–33 (agenda item 15).


\textsuperscript{62} OPCW (note 61), para. 120.
visit requested by the United Kingdom’, the Director-General asked the SAB
to provide advice on toxic chemicals that have been identified as new types
of nerve agents.\footnote{OPCW, Technical Secretariat, ‘Request for information from states parties on new types of nerve agents’, Note by the Director-General, S/1621/2018, 2 May 2018, pp. 2–3.} The Director-General requested that any state party in a
position to do so make relevant information available to the SAB.\footnote{OPCW (note 63), para. 2.} The SAB
completed its work on this task and its report was released to states parties on
3 July. The Director-General noted that: ‘The findings provide a factual basis
on which the states parties can discuss the relevance to the Convention of
these new types of nerve agents’.\footnote{OPCW, Executive Council, ‘Opening statement by the Director-General to the Executive Council
at its eighty-eighth session’, EC-88/DG.22, 10 July 2018, para. 20.}

The Advisory Board on Education and Outreach

The OPCW Advisory Board on Education and Outreach (ABEO) met twice in
2018: in February–March and in August. In February the ABEO submitted its
first substantive report to the Director-General.\footnote{OPCW, Advisory Board on Education and Outreach, ‘Report on the role of education and outreach in preventing the re-emergence of chemical weapons’, ABEO-5/1, 12 Feb. 2018.} The report recommended,
among other things, that the phrase ‘preventing the re-emergence of chem-
ical weapons’ be adopted as an ‘overarching theme’ for education and outreach activities.\footnote{OPCW (note 66), para. 1.13.} The report recommended active enrolment of stake-
holder communities, but importantly envisaged them as either ‘targets of
[education and outreach] or partners in the design and implementation of
education and outreach activities’.\footnote{OPCW, Review Conference, ‘Statement by Professor Alastair Hay, member of the OPCW Advisory
Board on Education and Outreach, to the Fourth Review Conference of the Chemical Weapons
report aimed primarily at National Authorities was published in November.\footnote{OPCW (note 65), para. 9.87(d).}
The 4th Review Conference emphasized that education and outreach are
‘increasingly important tools employed by the OPCW to engage with states
parties’ and relevant stakeholder communities at the international, regional
and local levels.\footnote{OPCW, Advisory Board on Education and Outreach, ‘Education and outreach for a world free of
chemical weapons: Role of states parties’, [n.d.].} It ‘requested the Secretariat to further strengthen education
and outreach’ and ‘encouraged the Secretariat, in concert with the ABEO, to
assist states parties, upon request, in implementing education and outreach
activities’.\footnote{OPCW (note 51), para. 9.85}

Activities in cooperation with other international agencies

The OPCW continued to focus its attention on the issue of countering the
threat of chemical terrorism, including by deepening existing relations
with other international agencies. In March, the Director-General signed
the UN Office of Counter-Terrorism-sponsored Global Counter-Terrorism
Coordination Compact. This non-binding compact, which brings together
38 international agencies, seeks to ensure coordination and coherence of
UN system-wide counterterrorism efforts, including coordination of oper-
ational-level activities in order to avoid duplication of effort. The OPCW
acts as co-chair, with the International Atomic Energy Agency, of the UN
Counter-Terrorism Implementation Task Force (CITITF) Working Group
on Preventing and Responding to Weapons of Mass Destruction Attacks. In
April, the OPCW hosted a workshop to lay the groundwork for the Working
Group’s action plan to address the recommendations of a table-top exercise
held in 2017. In June the Technical Secretariat hosted the first OPCW
Conference on Countering Chemical Terrorism, which brought together
more than 250 participants from relevant international organizations, non-
governmental organizations and academia. In his concluding remarks at the
conference, the Director-General stated that there should be more confer-
ences of this kind, acting as ‘further opportunities to forge partnerships and
to strengthen cooperation among those working to counter the threat of
chemical terrorism’.

Relations with other international organizations were also deepened in
2018. For example, the OPCW exchanged letters of intent with the World
Health Organization, aimed at establishing more formal cooperative arrange-
ments. The OPCW’s long-standing cooperation with the 1540 mechanism
continued and deepened through reciprocal participation in each other’s
events, as did its similar relationship with the Biological and Toxin Weapons
Convention.

The UN agenda for disarmament and chemical weapons

In late May 2018 the UN Secretary-General, António Guterres, presented a
new agenda for disarmament. In the foreword to the 87-page document,
Guterres describes a bleak disarmament environment where: ‘In many
recent conflicts, the laws of humanity have been disregarded and prohibited
weapons, such as chemical munitions, have returned to the battlefield.’ As a

72 OPCW (note 55), para. 80. On the issue of cooperative relations with other international
organizations and mechanisms, see para. 81.
73 OPCW (note 55), para. 80.
74 See OPCW, Technical Secretariat, ‘Summary of the Conference on Countering Chemical
Terrorism, OPCW Headquarters, The Hague, the Netherlands, 7–8 June 2018’, Note by the Technical
75 OPCW (note 74), para. 44.
76 United Nations Office for Disarmament Affairs (UNODA), Securing Our Common Future: An
77 UNODA (note 76), p. ix.
result, ‘the new reality demands that disarmament and non-proliferation are put at the centre of the work of the United Nations’.\(^{78}\)

With respect to CWs, a central theme of the agenda is ensuring ‘respect for the global norm’ against chemical (and biological) weapons and increasing the capacity to uphold that norm. The report notes that the norms against such weapons ‘have been challenged in recent years by their repeated use—so far with impunity’ in the Syrian conflict and elsewhere.\(^{79}\) Suggesting that ‘political differences have frustrated efforts to achieve accountability’, the report argues that ‘Unless these trends are checked, we risk falling back to a moral dark age where the use of chemical, and potentially biological, weapons becomes tragically normalized’.\(^{80}\)

The report calls on the Security Council to ‘demonstrate new leadership and unity to end impunity’.\(^{81}\) It argues that the Security Council has ‘failed to live up to its responsibilities’ and has instead ‘descended into a tragic form of political theatre’ that must come to an end.\(^{82}\) Consequently, an explicit action point in relation to CWs is for the UN Secretary-General to work with members of the Security Council to ‘build new leadership and unity in restoring respect for the global norm against chemical weapons, including through the creation of a new and impartial mechanism to identify those responsible for the use of chemical weapons in the Syrian Arab Republic’.\(^{83}\)

On the issue of creating a new and impartial mechanism, the report suggests that the OPCW, as the CWC approaches universality, should become the body responsible for carrying out investigations and efforts to strengthen the CWC, and that its institutional capacity should be supported by the Secretary-General.\(^{84}\)

A related and relevant area proposed in the agenda is encouraging responsible innovation. Noting that scientists have developed approaches and techniques to ‘safeguard and verify the non-diversion of peaceful . . . chemical activities to use in weapons’, and also ‘served on the front lines’ of investigations into allegations of use, the report states that the Secretary-General supports ‘a more inclusive role for industry and academia in policymaking processes related to ensuring the peaceful use of technology’.\(^{85}\)

The UN Office for Disarmament Affairs launched a ‘living’ implementation plan for the agenda in October 2018.\(^{86}\) In connection with CWs, this plan notes

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\(^{78}\) UNODA (note 76), p. vii. See also chapter 7, section V, and chapter 9, section IV, in this volume.

\(^{79}\) UNODA (note 76), p. 24.

\(^{80}\) UNODA (note 76), p. 25.

\(^{81}\) UNODA (note 76), p. 25.

\(^{82}\) UNODA (note 76), pp. 25–26.

\(^{83}\) UNODA (note 76), p. 25.

\(^{84}\) UNODA (note 76), p. 26.

\(^{85}\) UNODA (note 76), pp. 53–54.

that on Action 9—restoring ‘respect for the global norm’ against chemical (and biological) weapons—a ‘lessons-learned’ process on the OPCW–UN Joint Investigative Mechanism is ‘in progress’. It is hoped that the findings of this process will ‘better prepare the international community to respond to any future allegations of the use of chemical weapons and enhance the Security Council’s understanding of best practices related to an effective and credible mechanism’.87

87 See United Nations, Implementation plan for the Secretary-General’s Disarmament Agenda, Action 9, Restore respect for norms against chemical and biological weapons, Update of 7 Mar. 2019.
IV. Biological weapon disarmament and non-proliferation

FILIPPA LENTZOS

The principal legal instrument against biological warfare is the 1972 Biological and Toxin Weapons Convention (BWC).¹ In 2018, Palestine and Niue acceded to the BWC, and the Central African Republic ratified the convention, becoming the 182nd state party.²

Key biological disarmament and non-proliferation activities in 2018 were carried out in connection with the first set of 2018–20 BWC intersessional Meetings of Experts (MXs), the First Committee of the United Nations General Assembly, and the BWC Meeting of States Parties (MSP). Several workshops of relevance to biological disarmament and non-proliferation also took place in 2018. Major issues and developments in the field were the unsustainable financial environment of the BWC, the MSP non-report on the MXs, the introduction of the UN Secretary-General’s Disarmament Agenda and the increasingly confrontational statements made by Russia alleging that US biological weapon laboratories were operating in neighbouring states, most notably in Georgia.

The 2018 Meetings of Experts

The 2016 Review Conference negotiations, which carried over into the 2017 MSP, agreed to hold five Meetings of Experts in each of the three years leading up to the 2021 BWC Review Conference.³ MX1 was to focus on cooperation and assistance, MX2 on science and technology, MX3 on national implementation, MX4 on assistance, response and preparedness, and MX5 on institutional strengthening. The first set of these meetings took place in August 2018. In advance of each MX, the BWC Implementation Support Unit (ISU) produced a general background document on the topic under consideration.⁴

Meeting of Experts 1

MX1 met on 7–8 August 2018 and was chaired by Ambassador Maria Teresa T. Almojuela of the Philippines. The purpose of the meeting was to discuss and promote common understanding and effective action on cooperation

¹ 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, section I, in this volume.
⁴ For background documents, along with all working papers, technical briefing presentations, side event details and the joint NGO position paper, see BWC, ‘2018 Meetings of Experts (7–16 Aug. 2018)’, Meetings and documents.
and assistance, with a particular focus on strengthening cooperation and assistance on peaceful uses of the life sciences and associated technologies (Article X). States parties submitted 12 working papers. A joint non-governmental organization (NGO) position paper submitted to all five MXs set out a collective NGO view on key action points for the meetings. Technical briefings were provided to the meeting by the Group of Experts under UN Security Council Resolution 1540, the International Criminal Police Organization (INTERPOL), the World Organization for Animal Health (OIE), the Organisation for the Prohibition of Chemical Weapons (OPCW) and the World Health Organization (WHO). The ISU briefed the meeting on the newly updated Cooperation and Assistance Database. Three side events were hosted by India, Russia and the Johns Hopkins Center for Health Security.

The meeting reviewed the comprehensive activities being undertaken by states parties to implement Article X. In exploring ways to promote more robust cooperation and assistance, delegations noted the need to: (a) further optimize the operation of the Cooperation and Assistance Database; (b) develop guidelines for sustainable resource mobilization strategies; (c) develop a database to serve as reference on regulatory frameworks for biosafety and biosecurity; (d) support academic networks to promote human resource capacities in the biological sciences in the developing world; and (e) provide effective training and manuals to support states in crafting biological risk management systems.\(^5\)

In her reflections on MX1, the chair suggested several concrete proposals for further consideration in the next MX1, such as: an action plan for Article X implementation; guidelines on Article X reports; the creation of a BWC Cooperation and Assistance Officer position within the ISU; an open-ended working group to monitor, coordinate and review activities of cooperation and assistance; and ways to further collaboration with INTERPOL, the OIE and WHO.\(^6\)

**Meeting of Experts 2**

MX2 met on 9–10 August 2018 and was chaired by Pedro Luiz Dalcero of Brazil. The purpose of the meeting was to discuss and promote common understanding and effective action on developments in the fields of science and technology related to the BWC, with a particular focus on genome editing. States parties submitted 12 working papers. Technical briefings were provided to the meeting by the Group of Experts under UN Security Council

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\(^6\) BWC, ‘Meeting of Experts on cooperation and assistance, with a particular focus on strengthening cooperation and assistance under Article X: Reflections and proposals for possible outcomes’, BWC/MSP/2018/CRP.2, 4 Dec. 2018, para. 12.
Resolution 1540, the OIE, the OPCW and the UN Interregional Crime and Justice Research Institute (UNICRI). Four side events were hosted by China, Russia, the InterAcademy Partnership (IAP) and the US National Academy of Sciences, and the OPCW.

The meeting reviewed developments in science and technology relevant to the convention, and identified potential benefits and risks. It considered biological risk assessment and management, particularly through regulation, and discussed biosecurity education and the development of a voluntary code of conduct for biological scientists and other relevant personnel. Genome editing was considered in depth, along with other relevant scientific and technological developments and the activities of relevant multilateral organizations.\(^7\) In his reflections on MX2, the chair noted that:

while there was convergence on the importance for the BWC of keeping under consideration new technological developments in areas associated with the Convention’s field of application, future discussions and outcomes regarding further activities of the intersessional process should focus on issues that achieved greater commonality of approaches among delegations. In this regard, two areas could be explored: (i) risk assessment and management, and (ii) a voluntary code of conduct for biological scientists and relevant personnel.\(^8\)

It was the chair’s view that these two topics could lead to meaningful discussions in the MX2 meetings in 2019 and 2020, and that they ‘present the best prospect for an agreed outcome on [science and technology] issues in the 2021 Review Conference of the BWC’.\(^9\) He also noted that while MX2 is the currently available format for discussions, other possibilities such as working groups operating in parallel and complementary to MX2 should not be ruled out.

Meeting of Experts 3

MX3 met on 13 August 2018 and was chaired by Ambassador Julio Herráiz España of Spain. The purpose of the meeting was to discuss and promote common understanding and effective action on strengthening national implementation. States parties submitted nine working papers. The ISU briefed the meeting on its new platform for electronic submission of BWC Confidence Building Measures (CBMs), which will go live in 2019. Three side events were hosted by the Danish Centre for Biosecurity and Biopreparedness and Kenya, the European Union (EU) and the USA.


\(^9\) BWC, BWC/MSP/2018/CRP.3 (note 8), para. 7.
The meeting considered measures related to Article IV of the convention, which obliges states to take any national measures necessary to implement the provisions of the BWC domestically. It also considered CBMs, particularly regarding the quantity and quality of submissions. While the past five years have seen an increase in the submission of CBMs, only around 40 per cent of states have submitted CBMs and the quality of these submissions is variable. As of January 2019, 32 submissions for 2018 had been made publicly available, the highest annual number to date.\(^{10}\) The meeting also discussed additional ways to promote transparency and confidence building, focusing particularly on peer review and transparency visits. The role of international cooperation and assistance under Article X, in support of strengthening implementation, was also considered, along with issues related to Article III, such as effective measures of export control.\(^ {11}\)

In his reflections on MX3, the chair identified three areas ripe for further discussion at MX3 in 2019 and 2020: CBMs and their improvement, other voluntary transparency initiatives and export controls.\(^ {12}\)

**Meeting of Experts 4**

MX4 met on 14–15 August 2018 and was chaired by Daniel Nord of Sweden. The purpose of the meeting was to discuss and promote common understanding and effective action on assistance, response and preparedness. States parties submitted 11 working papers. Technical briefings were provided to the meeting by the OIE, the OPCW and WHO. Five side events were hosted by Canada, France, Russia, Georgetown University and the Nuclear Threat Initiative (NTI), and the Johns Hopkins Center for Health Security.

The meeting discussed practical challenges and possible solutions for implementing Article VII, which obliges states parties to provide assistance to any state party that has been exposed to danger as a result of a violation of the convention. Particular attention was given to guidelines on and formats for assistance. Procedures for providing a prompt and efficient response to a request for assistance without preconditions were also discussed, including the concept of mobile biomedical units. Approaches to strengthening international response capabilities for infectious disease outbreaks, both natural and deliberate in origin, were explored, as were means for preparing for, responding to and rendering assistance in case of the possible hostile use of biological agents against agriculture, livestock and the natural environment.\(^ {13}\)

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\(^ {10}\) BWC, ‘Confidence-Building Measures’, [n.d.].


In his reflections on MX4, the chair underscored that no framework currently exists for addressing requests for assistance in the event that a state party has been attacked by biological weapons. If an assistance request was made today, many of the necessary elements of such a framework would need to be improvised. MX4 discussions showed, however, that ‘there was widespread support for the development of [such] a framework’, although there were differences over how and when to do this. The chair suggested that formats and guidelines should be developed, and that the use of these formats and guidelines in preparations and training exercises would enable lessons to be learned and weaknesses to be dealt with before formal approval and adoption by states parties. The chair also noted the broad support among delegations for a database to facilitate the implementation of Article VII, but that questions remained over how the database would function, which technical platform, what assistance offers could be listed and the possible financial costs. He urged further work to address these issues in 2019 and 2021.

Meeting of Experts 5

MX5 met on 16 August 2018 and was chaired by Otakar Gorgol of Czechia. The purpose of the meeting was to discuss and promote common understanding and effective action on institutional strengthening of the convention. States parties submitted four working papers. Three side events were hosted by the USA, King’s College London and Norway, and the Geneva Disarmament Platform and the British American Security Information Council. The meeting had only one agenda item: consideration of the full range of approaches and options to further strengthen the convention and its functioning through possible additional legal measures or other measures in the framework of the convention.

In his reflections on MX5, the chair noted that while there was a strong desire and willingness among delegations to strengthen the convention, there were also differing views on the ways and means to do so: ‘The most significant point of disagreement remains whether to pursue objectives through a new legally-binding agreement’. However, ‘there is no prospect of consensus on this matter now or in the near future’. He continued:

It is clear that these are strongly held positions: if progress is to be made, it will be essential to avoid taking action prejudicial to either position. Within this context, however, it may be possible to take steps to strengthen the Convention in the near term through politically agreed measures that do not involve new legal mechanisms.

15 BWC, BWC/MSP/2018/CRP.5 (note 14), para. 5.
17 BWC, BWC/MSP/2018/CRP.6 (note 16), para. 8.
Such measures could be agreed and implemented swiftly, while further discussions on the specifications of a legally-binding protocol could proceed. In other words, the discussion in the MX5 should continue to focus not only on legal mechanisms, but on other institutional aspects of the BWC as well.\textsuperscript{18}

The chair suggested focusing on improving and widening the existing set of CBMs and on guidelines for submitting assistance requests under Article VII.

**The First Committee of the UN General Assembly**

Resolution A/C.1/73/L.9 on the BWC was adopted in the First Committee of the UN General Assembly on 5 November 2018 without a vote.\textsuperscript{19} As in previous years, the increase in the number of states parties to the treaty was noted but, unusually, these states, which included Palestine, were not named. A substantial addition to the traditional BWC resolution was that it noted with concern the untenable financial situation of the convention and requested the chair of the 2018 MSP to prepare an information paper on measures to address financial predictability and sustainability for future BWC meetings and for the ISU.\textsuperscript{20}

The biennial resolution on measures to uphold the authority of the 1925 Geneva Protocol was agreed by 178 states with 2 regular abstentions: Israel and the USA.\textsuperscript{21} No state voted against. The Geneva Protocol prohibits the use of chemical and biological weapons, and the resolution renewed its previous call to all states ‘to observe strictly the principles and objectives of the Protocol’. Universal adherence to the Geneva Protocol by all states, including by all states parties to the BWC, has been an agreed politically binding commitment within the framework of the BWC since 1980. However, the number of BWC states parties that are not parties to the Geneva Protocol has increased since 1980. Moreover, a number of states still formally maintain reservations to the Protocol, and the resolution calls on those states to withdraw these reservations.

**The 2018 Meeting of States Parties**

The 2018 MSP took place on 4, 5 and 7 December 2018, chaired by Ljupčo Jivan Gjorgjinski of North Macedonia. While the process of selecting chairs

\textsuperscript{18} BWC, BWC/MSP/2018/CRP.6 (note 16), para. 9.


\textsuperscript{20} United Nations, ‘First Committee sends 8 drafts to General Assembly, including text aimed at identifying, holding perpetrators of chemical weapon use accountable’, Press release GA/DIS/3617, 5 Dec. 2018.

and vice chairs of MSPs is not clearly codified, recent practice has been for regional groups to decide their selections among themselves, and for this to be accepted by states parties unless an objection is raised. For the 2018 MSP, the USA had made it known informally in advance that it would be unable to accept the Non-Aligned Movement (NAM) selection of Venezuela as vice chair. At the meeting, states parties decided to proceed, on an exceptional basis, without vice chairs for 2018.

The meeting was responsible for managing the intersessional programme through consideration of the MX reports and for taking the necessary measures with respect to budgetary and financial matters. The chair produced a report on universalization activities in advance of the meeting.\(^{22}\) In addition, an information paper was mandated by the General Assembly to address financial predictability and sustainability.\(^{23}\) The ISU produced an annual report on its activities.\(^{24}\) States parties submitted 11 working papers.\(^{25}\) Nine side events were hosted on the margins of the meeting.\(^{26}\)

The originally scheduled four-day meeting (4–7 December) was reduced to three days (4, 5 and 7 December), reflecting the adverse financial environment, although discussions continued informally on 6 December.

The main focus of the meeting was the need for urgent measures to ensure financial predictability, and the sustainability of the meetings agreed by states parties and of ISU staff contracts. States parties recognized that the convention’s financial difficulties stem from three principal sources: non-payment of contributions by some states parties; delays in receipt of contributions from other states parties; and the financial requirements of the UN with respect to activities not funded from the UN’s regular budget. In order to address these, the meeting endorsed a set of substantive measures to encourage timely payment, ensure liquidity and avoid deficit spending or accumulation of liabilities. One such measure was to establish a Working Capital Fund (WCF) to be financed by voluntary contributions and used solely as a source of short-term financing pending receipt of reasonably anticipated contributions. The meeting also: (a) requested regular reporting on expenditure, collection and use of the WCF by the UN Office at Geneva and the ISU; (b) asked the chair of the 2019 MSP to identify further measures, including measures to incentivize payment, for consideration at the 2019

\(^{26}\) The 9 side events were hosted by Biosecure and the UK; Germany (two events); Russia; the EU; Hamburg University; the InterAcademy Partnership, the US National Academies of Sciences, the Croatian Academy of Sciences and Arts, and the Croatian Society for Biosafety and Biosecurity; the Johns Hopkins Center for Health Security; and the UN Counter-Terrorism Center (UNOCT), UNICRI and INTERPOL.
MSP; and (c) resolved to continue monitoring the financial situation of the convention, including at the 2019 MSP.\(^{27}\)

In addition to the financial deliberations, the meeting considered universalization, the annual report of the ISU, arrangements for the 2019 meetings and the reports of each MX. The substantive outcome of the meeting’s consideration of the MX reports, after long and difficult negotiations, was minimal. The report of the 2018 MSP contained just one line on the 2018 MXs: ‘No consensus was reached on the deliberations including any possible outcomes of the Meetings of Experts’.\(^{28}\) The chair expressed his regret that the report could not include more substantive elements, and particularly regretted the loss of any reference to the chairs of the meetings who he said had done excellent work.\(^{29}\)

According to Richard Guthrie, an observer of the late-night negotiations, ‘It was the Iranian delegation that was responsible for there being no substantive element to the final report, much to the visible frustration of countries that often have been allied with that country, such as China and Russia’.\(^{30}\) This minimal outcome was unreflective of the considerable preparations and substantial discussions that had gone into the 2018 BWC meetings by a range of actors, and the concerted efforts of the vast majority of states parties negotiating the final report to get more of the substance reflected in the report. It exemplifies the frustration that often comes with consensus-driven processes and raises the larger question of whether current working practices are the best way of ensuring the purpose of the treaty—to ensure that biological weapons are not developed.

**Implications for the future development of the convention**

Since the very first BWC Review Conference in 1980, all final documents and MSP reports have been adopted by consensus. While laudable, this has come at a cost. Consensus has most often been achieved not by forging genuine substantive compromise, but by finding clever, or obscure, diplomatic formulations that paper over unresolved differences. Consensus keeps resulting in watered-down documents with little real-world impact. Often, the consensus wording is simply reused formulations based on previous final documents. Trying to establish consensus consumes a great deal of meeting time that could be better spent, for instance, discussing advances in science and technology, or on compliance assessment and confidence building. Consensus brings in political battles from other areas and shifts the focus away from the core purpose of the treaty. In many ways, consensus


\(^{30}\) Guthrie (note 29).
has become less a tool for encouraging creative compromise, and more an instrument for demanding unanimity, usually resulting in lowest common denominator outcomes, as was clearly the case for the 2018 MSP report.

It is argued that the general status quo of BWC processes reflects incremental evolution, rather than stasis. The complete lack of any substantive outcome from the MX deliberations in the MSP report, however, is now slowing the already slow evolution to a near standstill. This does not seem to be a tenable position if the convention is to retain its leading role in the global dialogue on preventing the misuse of biology. One small but still significant way to deal with consensus would be to develop a different kind of report, in which consensus recommendations and proposals are prominently noted but those which do not achieve consensus are also clearly stated and acknowledged. This is not impossible in the BWC, but it would take leadership.

Outdated working practices are symptomatic of wider challenges for the BWC. A big-picture approach would be to scale back expectations of the convention’s roles. Like-minded states, or partnerships between states, civil society and other actors, could then move more actively into the space, supplementing any treaty activities by taking initiatives that still aim towards the purposes of the BWC but are outside of formal BWC processes. This is not a new idea: it has had various iterations over the years. It has been most recently described as an ‘innovation’ approach where, rather than a single international regime against biological weapons, there would be a loosely linked regime complex with discrete components created at different times, by different groups of countries, and not integrated, comprehensive or arranged in a clear hierarchy. As noted by one expert in the field, Jez Littlewood, ‘Arguably, this loose regime complex is the existing reality in which the BWC resides, but States Parties to the Convention have been unable to further develop the model and strengthen the Convention in this manner because a large number of States refuse to abandon traditional forms of arms control’.

While some states are pushing hard against a looser regime approach, others are actively encouraging it and still others seem open to the idea. Examples of efforts to forge new networks and linkages, increase coordination and

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34 Littlewood (note 33), p. 507.
develop more flexible arrangements can be seen in the increased outreach and dialogue between states, civil society and other actors.

**Workshops in 2018**

The unusually large number of BWC-related workshops in 2018 was testament to the initiative and financial support of a growing number of individual states or groups of states parties, civil society and other actors, and their interest in strengthening the norm and prohibition against biological weapons. Four universalization workshops were organized by the ISU and the UN Office for Disarmament Affairs (UNODA), with EU funding, in order to increase treaty participation. Four similarly funded ISU/UNODA-organized workshops to improve national implementation were also held, as were two workshops on transfer controls on biological materials. China hosted an international experts’ workshop in June, ‘Building a global community of shared future for biosecurity: Development of a code of conduct for biological scientists’. Two workshops on cooperation and assistance under Article X of the BWC were organized by the ISU and funded by Norway.

Several workshops were held on developments in science and technology and their implications for the BWC. The ISU and UNODA organized four of these, with EU funding. The InterAcademy Partnership, the US National Academies of Sciences, the Croatian Academy of Sciences and Arts, and the Croatian Society for Biosafety and Biosecurity organized an international experts’ workshop in Croatia on ‘Governance of dual-use research in the life sciences’. A report of the meeting was launched at the 2018 MSP. Switzerland hosted the third of the biennial Spiez Convergence workshops on significant advances in the chemical and biological sciences. The Johns Hopkins Center for Health Security hosted a global forum in Geneva on scientific advances important to the BWC.

Several workshops were held on response to and preparedness for the deliberate use of biological weapons. A workshop on the development of an international bio-emergency management plan for deliberate events was co-organized by the ISU and the Geneva Centre for Security Policy (GCSP), funded by Canada. A workshop on the importance of disease surveillance and alert mechanisms was co-organized by the ISU and the GCSP, funded by Japan. Switzerland hosted its fourth workshop on developing a UN Secretary-General’s Mechanism (UNSGM) designated laboratory network to support

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the convention. To further support the UNSGM-designated laboratory network, Denmark and Sweden hosted dry lab computer modelling exercises.

Under its Global Biological Policy and Programs, NTI | bio, the biosecurity division of the NTI, hosted a ‘Global Biosecurity Dialogue’ event in the United Kingdom. NTI | bio also introduced its Biosecurity Innovation and Risk Reduction Initiative and co-hosted an international experts’ conference on ‘powerful actors, high impact bio-threats’ at Wilton Park with the Johns Hopkins Center for Health Security and the Future of Humanity Institute, University of Oxford.

**Major developments in 2018**

In addition to the issues of the unsustainable financial environment of the BWC and the 2018 MSP’s non-report of the 2018 MXs, there were two major developments affecting biological disarmament and non-proliferation in 2018.

The first was a series of increasingly confrontational statements by Russia alleging that US biological weapon laboratories were operating in neighbouring states. At the heart of the accusations was the Richard Lugar Center for Public Health Research (Lugar Center) in Georgia.37 While such stories have been circulating in the media for a number of years, the messaging significantly increased after the UK identified Russia as the perpetrator of the March 2018 attempted assassination in Salisbury, using the nerve agent novichok (see section II).38 The accusations entered the multilateral arena in late September 2018, through an exchange of notes verbales circulated to BWC states parties on behalf of Georgia and Russia.39 There were also confrontational diplomatic exchanges between Georgian and Russian representatives through statements and rights of reply at the First Committee of the UN General Assembly.40 In November, a two-day transparency visit to the Lugar Center by 22 state representatives and experts took place at the invitation of Georgia. Russia was invited but did not participate. The visiting team concluded that ‘the facility demonstrated significant transparency about its activities’ and that it had ‘observed nothing that was inconsistent with prophylactic, protective and other peaceful purposes’.41

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38 Lentzos (note 37).  
39 Lentzos (note 37).  
40 Lentzos (note 37).  
team’s report, supplemented by an independent report from a civil society participant, was communicated through working papers to the 2018 BWC MSP.\textsuperscript{42} The transparency visit was also presented and discussed at a side event at the 2018 MSP in December.\textsuperscript{43}

The second major development in 2018 was the launch of the UN Secretary-General’s disarmament initiative, ‘Securing Our Common Future: An Agenda for Disarmament’.\textsuperscript{44} In the biological field, the emphasis was on strengthening the BWC, establishing a dedicated institutional capacity to investigate allegations of biological weapon use, and, in cases of a biological attack, coordinating an adequate international response.\textsuperscript{45} This emphasis is in line with the increasing focus in the biological disarmament community on the growing risks of future biological weapon use and the need to prepare for such an eventuality.

\textsuperscript{43} BWC, BWC/MSP/2018/WP.11 (note 42), paras 66–67.
\textsuperscript{44} United Nations Office for Disarmament Affairs (UNODA), Securing Our Common Future: An Agenda for Disarmament (UNODA: New York, 2018).
\textsuperscript{45} UNODA (note 44), ‘Ensuring respect for norms against chemical and biological weapons’, Part II, ‘Disarmament to save humanity’. On the nuclear weapon-related aspects of the agenda, see chapter 7, section V, in this volume; on the conventional arms control aspects of the agenda, see chapter 9, section II, in this volume.