IV. Biological arms control

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The principal legal instrument against biological warfare is the 1972 Biological and Toxin Weapons Convention (BTWC).[1] Samoa acceded to the convention in 2017 and, as of December 2017, the convention had 179 states parties.

The BTWC treaty regime

The BTWC treaty regime is based on an evolving process that dates to 2002, when the reconvened Fifth Review Conference agreed an initial set of annual intersessional process meetings. The most divisive issue at both the Eighth Review Conference, in 2016, and the 2017 Meeting of States Parties (MSP) was whether an annual intersessional process should refer to a legally binding instrument (LBI) as a negotiating objective and, if so, whether the mandate for an intersessional process should include the possibility of an expert meeting to reconsider an LBI, or to recommend that the Ninth Review Conference revisit the 1995–2001 negotiations by setting up an ad hoc group to strengthen treaty compliance.[2] The final document of the Eighth Review Conference contained no reference to an LBI but the final document of the 2017 MSP document does allude to one.[3]

The treaty regime continued to operate under financial constraints due to late payment and non-payment by governments of their assessed contributions.[4] On 7 December 2017 the Implementation Support Unit (ISU) summarized the budgetary status and requirements of the treaty regime.[5] It estimated the cost of holding MSPs in 2017–20 to be $208 100.[6] It also summarized the costs of the annual BTWC meetings to date (see table 8.4).

[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 (Biological and Toxin Weapons Convention, BTWC) see annex A, section I, in this volume.

[2] BTWC 2017 Meeting of States Parties, 'Intersessional programme', Submitted by Venezuela on behalf of the Group of the Non-Aligned Movement and Other States, BWC/MSP/2017/WP.21, 5 Dec. 2017, para. 9, pp. 2–3. See also Sims, N., *The Evolution of Biological Disarmament*, SIPRI Chemical & Biological Warfare Studies no. 19 (Oxford University Press: Oxford, 2001), pp. 112–91.

[3] Thus the 5th Meeting of Exports shall be devoted to the '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'. BTWC 2017 Meeting of States Parties, 'Report of the Meeting of States Parties', BWC/MSP/2017/6, 19 Dec. 2017, p. 8. On the LBI see also BTWC 2017 Meeting of States Parties, BWC/MSP/2017/WP.21 (note 2), p. 2.

[4] E.g. United Nations, Secretariat, 'Status of contributions of BWC, CCW, CCM, OTW as at 30 September 2017', 30 Sep. 2017.

[5] Feakes, D., 'Potential cost implications', BTWC Implementation Support Unit, 7 Dec. 2017.

[6] Feakes (note 5), slide 3.

Table 8.4. Estimated cost of BTWC intersessional processes

Intersessional programme	Cost per year (US$)
2017–20 Meetings of States Parties	1 109 500*
2016 8th Review Conference	1 966 700
2012–15	1 943 400
2011 7th Review Conference	2 010 300
2007–10	721 700
2006 6th Review Conference	1 344 900
2003–2005	542 700
Ad Hoc Group 2001	1 357 100
Ad Hoc Group 2000	2 926 300
Ad Hoc Group 1999	2 489 739
Total	**16 412 339**

* = estimated figure; BTWC = Biological and Toxin Weapons Convention.

Source: Feakes, D., 'Potential cost implications', BTWC Implementation Support Unit, 7 Dec. 2017.

The 2017 Meeting of States Parties

The Eighth Review Conference of the BTWC, which met in 2016, deferred until 2017 the question of whether further intersessional Meetings of Experts (MXs) and annual MSPs should be held in 2018–20 and, if so, how the programme of work should be structured.[7] These were the major issues considered during the 2017 MSP, which was convened on 4–8 December under the chairmanship of Ambassador Singh Gill of India.

Numerous meetings were convened in the lead-up to the MSP, motivated partly by the perceived need to reduce the risk of bioterrorism and for better preparedness for disease outbreaks. For example, Russia demonstrated a mobile laboratory capacity at a conference on 1–2 November 2017 organized in Sochi by the Russian Ministry of Foreign Affairs.[8] Other meetings sought to increase treaty membership and to improve national implementation of the treaty's provisions. A workshop for Pacific Island states was hosted by Fiji with support from the United Nations Office for Disarmament Affairs, the ISU and the European Union (EU) on 27–28 July.[9] The EU funded a workshop in support of the BTWC extended assistance programmes on

[7] Pearson, G. and Sims, N. A., *Report from Geneva: The BTWC Eighth Review Conference: A Disappointing Outcome*, Review no. 46 (Harvard Sussex Program: Brighton, Apr. 2017).

[8] 'International Conference "Global Biosecurity Challenges: Problems and Solutions"', 1–2 Nov. 2017, Annex 1.

[9] UN Office for Disarmament Affairs, 'Fiji hosts regional workshop to promote universalization of the Biological and Toxin Weapons Convention in the Pacific', Press release, 3 Aug. 2017.

28–29 March, and the Regional Africa Parliamentary Workshop brought together African officials to discuss and review the BTWC on 27–28 March.[10]

The Inter-Academy Partnership (IAP) held a workshop on assessing the security implications of genome editing technology in Germany in October.[11] Spiez Laboratory hosted its third workshop on developing a laboratory network to support the convention in June.[12] The Robert Koch Institute hosted a bio-reference laboratory workshop in September.[13]

The BTWC depositaries—Russia, the United Kingdom and the United States—met to develop a common approach to a further intersessional process. The results were circulated at the MSP as a working paper that enjoyed wide support from the parties.[14] Governments considered the working paper to be an unusual and welcome piece of statecraft in view of the broader geopolitical tensions between the three states.

The EU maintained, in a position paper supported by nine other states parties and tabled at the MSP, that 'further concrete progress' should be made on 'all key issues', but especially national implementation and compliance, confidence-building measures (CBMs), science and technology, Article V on consultation and cooperation, Article VII on assistance, and achieving universal treaty membership.[15] The EU stated that it considered 'the primary objective' of the meeting to be 'to agree on an intersessional programme that would strengthen the [BTWC] and enhance its implementation and universalisation'.[16]

The EU suggested that the meeting focus on six areas: (*a*) 'national implementation and compliance, including information sharing on national legislation and implementation measures to [maintain] control over pathogenic microorganisms, biosafety and biosecurity standards, engagement with non-governmental stakeholders'; (*b*) 'further work on [CBMs] to provide reassurance on compliance by means of information exchanges and

[10] 'PGA Regional Africa Workshop to Promote Ratification and Implementation of the Biological and Toxin Weapons Convention (BTWC)', 27–28 Mar. 2017, Sierra Leone; and Permanent Delegation of the EU to the UN and Other International Organisations in Geneva, 'Report: Workshop in support of the Biological Weapons Convention Extended Assistance Programmes', 28–29 Mar. 2017.

[11] Inter-Academy Partnership, 'Statement by the IAP Biosecurity Working Group', Dec. 2017.

[12] Spiez Laboratory, 'UNSGM Designated Laboratories workshop report, Spiez, Switzerland, 20–22 June 2017', Sep. 2017.

[13] On the Robert Koch Institute's project on the UN Secretary-General's investigative mechanism (UNSGM) see Robert Koch Institute, 'UNSGM-Projekt', 24 June 2014.

[14] BTWC 2017 Meeting of States Parties, 'Elements of a possible intersessional process', Submitted by Russia, the UK and the USA, BWC/MSP/2017/WP.10, 30 Nov. 2017.

[15] European Union External Action Service, 'EU statement on the outcome of the 2017 Meeting of States Parties of the Biological and Toxin Weapons Convention (BTWC) Geneva', 8 Dec. 2017, p. 1.

[16] European Union External Action Service, 'Meeting of States Parties to the Biological and Toxin Weapons Convention—EU key messages: Reaching consensus on an intersessional programme', 6 Dec. 2017, p. 1. Albania, Bosnia and Herzegovina, Georgia, the Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Serbia, Turkey and Ukraine associated themselves with this statement.

enhancing transparency, including increasing the relevance of CBM forms and conducting voluntary peer review initiatives'; (*c*) 'assistance and cooperation under Article VII taking into account the pressing capacity building needs as regards responding to outbreaks of infectious diseases'; (*d*) 'science and technology in order to review relevant developments in a more systematic way and assess their impact, positive and negative, on the BTWC'; (*e*) 'review of the Consultative Committee procedure making it possible for States Parties to resort to consultation and cooperation bilaterally and multilaterally, as set out in Article V'; and (*f*) 'universalisation, including the adoption of an action plan and dedicated sessions to promote universal adherence to the BTWC'.[17]

Since 2006 the EU has spent €6.3 million (*c.* $7.7 million) and organized 26 workshops to support achieving universal treaty membership and effective treaty implementation.[18] There was continued support among the parties for the creation of a network of designated laboratories to support the UN Secretary-General's mechanism for investigating allegations of use of chemical or biological weapons.[19] Germany and Switzerland hosted a side event devoted to this topic on 7 December.

MSP outcomes

The outcomes of the MSP were shaped by the structure and language developed on an intersessional process as outlined in the joint paper circulated by the convention's three depositary states.[20] Three annual MSPs and five sets of Meetings of Experts will be held in the period 2018–20.[21]

MX1 will meet three times, each for two days, to discuss and promote common understanding and effective action on cooperation and assistance, with a particular focus on strengthening cooperation and assistance under Article X, which encourages peaceful uses of the life sciences and associated technologies. These meetings will, among other things, review the operation of the assistance and cooperation database by the ISU.

MX2 will meet three times, each for two days, to discuss and promote common understanding and effective action on reviewing developments, including genome editing, in the fields of science and technology related to the convention. This will include consideration of 'any other science and technology developments of relevance to the Convention and also to the activities of relevant multilateral organizations' such as the World Health

[17] European Union External Action Service (note 16), p. 2.

[18] European Union External Action Service, 'Meeting of the States Parties to the Biological and Toxin Weapons Convention—EU key messages on universalisation', 7 Dec. 2017, p. 1.

[19] The Secretary-General's mechanism was last invoked in 2013, at the request of the Syrian Government. On the mechanism see United Nations Office for Disarmament Affairs.

[20] BTWC 2017 Meeting of States Parties, BWC/MSP/2017/WP.10 (note 14).

[21] BTWC 2017 Meeting of States Parties, BWC/MSP/2017/6 (note 3).

Organization (WHO), the World Organisation for Animal Health (OIE), the Food and Agricultural Organization of the UN (FAO), the International Plant Protection Convention (IPPC) and the Organisation for the Prohibition of Chemical Weapons (OPCW). This will require further interaction between the OPCW Scientific Advisory Board (SAB) and the BTWC framework meetings and processes.

MX3 will meet three times, each for one day, to discuss and promote common understanding and effective action on strengthening national implementation. This will include consideration of the quantity and quality of CBM submissions and 'effective measures of export control, in full conformity with all Articles of the Convention, including Article X'. Despite the Article X reference, this does not constitute a general endorsement by the parties of strategic trade controls.

MX4 will meet three times, each for two days, to discuss and promote common understanding and effective action on assistance, response and preparedness. This will entail further consideration of previous Russian proposals to examine how the concept of mobile biomedical units might contribute to the preparedness of parties to react to naturally occurring or deliberate biological threats.

MX5 will meet three times, each for one day, to discuss and promote common understanding and effective action on institutional strengthening of the convention. These meetings will consider the full range of approaches to and options for strengthening the convention, including through 'possible additional legal measures or other measures in the framework of the Convention'. This could mean possible modifications to the content, structure and legal status of CBMs or interactions with other legal regimes, either existing or proposed. For example, the parties might agree to make CBMs legally binding at the Ninth Review Conference.

The annual MSPs will discuss and promote common understanding of and effective action on the outputs of the MXs. The 2018–20 intersessional process has no decision-making authority. In 2021 the Ninth Review Conference will consider the work and outcomes of this process as a possible basis for taking legally binding or other types of decisions.

Some of the parties that wish to move the interactions among the members towards more specific compliance discussions—either to more fully and systematically demonstrate current compliance or to revisit past allegations of violations—have continued to focus on possible modifications to the content, structure and handling of the current politically binding information exchanges, which are intended to serve as CBMs, including on the basis of the Benelux practice visits to life sciences facilities conducted in 2015.[22] Some

[22] E.g. Revill, J., *Compliance Revisited: An Incremental Approach to Compliance in the Biological and Toxin Weapons Convention*, Occasional Paper no. 31 (Center for Nonproliferation Studies: Monterey,

parties maintain that CBMs in themselves are insufficient and that agreeing an LBI should instead be the objective. The 2017 outcome represents a continuation of the status quo whereby information, views and best practices on the convention's various provisions are exchanged in annual MXs and MSPs with the support of the Geneva-based ISU. The treaty regime continues to be process-oriented. The evolution of the treaty regime since at least the early 1980s remains relevant—even if this is unstated and somewhat overlooked.[23]

In 1961 Fred Iklé, a professor at the Massachusetts Institute of Technology (MIT) and later Director of the US Arms Control and Disarmament Agency, offered a standard framework for consideration of the handling of violations of disarmament and arms control agreements. In it he observed: 'The evidence of [a] violation must . . . be such as to impress the public as authoritative and impartial. A finding by an international organization will be influential in this regard, especially with public opinion outside the countries directly affected'.[24] Looking ahead, the parties to the BTWC could further consider the extent to which Iklé's analysis and admonition that verification frameworks should provide evidence that is accepted by all states as authoritative and impartial hold lessons for the convention.

In addition, a recently concluded three-year historical project carried out by Sussex University and University College London confirmed that chemical and biological arms control issues are inextricably linked.[25] This implies continued synergies between the implementation of the BTWC and of the 1993 Chemical Weapons Convention, such as through further consultations by the ISU and the SAB on relevant scientific and technological developments in the life sciences and chemistry. The 2018–20 intersessional process meetings will provide a platform for achieving a common understanding on longer-term treaty regime trends and their implications for multilateral disarmament and arms control more generally.

CA, Aug. 2017); Carus, W. S., 'A century of biological-weapons programs, 1915–2015: Reviewing the evidence', *Nonproliferation Review*, vol. 24, nos. 1–2 (2017), pp. 129–53; and BTWC 2015 Meeting of States Parties, 'Outline of key features and objectives', Submitted by Belgium, Luxembourg and the Netherlands, BWC/MSP/2015/MX/WP.13, 6 Aug. 2015.

[23] See e.g. Zanders, J. P., Hart, J. and Kuhlau, F., 'Biotechnology, biological defence research and the BTWC', *SIPRI Yearbook 2002*, pp. 680–83 [on biodefence projects]; Leitenberg, M. and Zilinskas, R. A., *The Soviet Biological Weapons Program: A History* (Harvard University Press: Cambridge, MA, 2012) [on legacies of former state BW programmes]; Wheelis, M., Rózsa, L. and Dando, M., *Deadly Cultures: Biological Weapons Since 1945* (Harvard University Press: Cambridge, MA, 2005); and Sims (note 2).

[24] Iklé, F. C., 'After detection—what?', *Foreign Affairs*, vol. 39, no. 2 (Jan. 1961) , p. 218.

[25] Balmer, B., McLeish, C. and Spelling, A., *Understanding Biological Disarmament: The Historical Context of the Origins of the Biological Weapons Convention (BWC)* (University College London: London, July 2017).