

KEEPING UP WITH THE SCIENTISTS

To protect and implement the BWC, states parties must improve the framework for reviewing developments in science and technology

By Caitriona McLeish & James Revill
BWC Review Conference Series

Paper N° 2 of 3
🐦 #BWCRC8

- Science and technology (S&T) of relevance to the Biological Weapons Convention (BWC) is advancing rapidly. Such developments have both positive and negative implications for the implementation of a number of the provisions of the BWC.
- While science and technology reviews have been integrated into the overall BWC review process, their utility has been limited.
- There is significant support for enhancing science and technology reviews, but differences remain over the details.
- States parties need to develop a shared understanding of what they want science and technology reviews to achieve, and then determine the best framework to meet that objective.

Introduction

The task of reviewing developments in science and technology (S&T) relevant to the Biological Weapons Convention (BWC) is essential for maintaining the strength and robustness of the Convention's provisions. Advances in science and technology can have profound implications for the implementation and viability of the BWC, in particular the Convention's scope of application. Keeping up with science and technology developments is of vital importance to the BWC regime.

One of the functions of the BWC review conferences, as established by Article XII of the BWC, is to review science and technology develop-

ments relevant to the Convention. Prior to the Review Conference in 2011, however, the science and technology review process received little collective attention. The number of states that submitted national science and technology papers was typically limited to less than a dozen.

In addition to limited participation, reviews tended to focus narrowly on those advances that related to the development of biological weapons (prohibited under Article I), neglecting the implications that science and technology has on the implementation of other articles of the Convention. For example, advances in vaccine manufacture could have a bearing on the pro-

vision of assistance in the event of a violation of the Convention (Article VII), and the digitization of genome data along with advances in communications could aid international cooperation (Article X). Troubled by the fairly long period of time between each review in the face

of rapid advances in the life sciences and associated disciplines, states parties decided in 2011 to include a review of specific scientific and technological issues as part of their intersessional work programme.

Science and technology on the standing agenda

At the Review Conference in 2011, the BWC states parties decided to include science and technology reviews as one of three “Standing Agenda Items” on the BWC’s intersessional programme (the series of Meetings of States Parties (MSP) and Meetings of Experts that would take place between 2012 and 2015). Under the science and technology Standing Agenda Item, a broad set of general themes and specific annual science and technology topics were agreed for discussion.¹

The purpose of any future science and technology review mechanism must be clear before attempting to settle questions of structure and process

While the inclusion of science and technology reviews as a standing intersessional agenda item clearly improved the BWC regime’s overall ability to keep up with science and technology developments,² questions have been raised about the effectiveness³ and sustainability of the new framework.⁴ As it turned out, as little

as four and a half hours per year ended up being used for science and technology discussions.⁵ BWC states parties have identified several weaknesses in the science and technology review framework that go at least some way in explaining the limitations:

- The potential for interactive debate was too limited.⁶
- The agenda was too rigid, thwarting reviews of unanticipated or ‘non-linear’ developments in science.
- The purpose of the science and technology standing agenda item was unclear. Should science and technology developments simply be identified, or should the states parties also come up with proposals for “effective action”?

Given these weaknesses in the current framework for intersessional science and technology reviews, both states⁷ and civil society actors⁸ have called for reform. Yet while there appears to be a sense of agreement that something needs to be done, there is currently no consensus on the purpose, institutional set-up and expected outcomes of a strengthened science and technology review.

Purpose of science and technology review

The purpose of any future science and technology review mechanism must be clear before attempting to settle questions of structure and process. For example, if the purpose is merely to discuss developments in science and technology, then more time could be provided and more interactive debate encouraged within the existing frameworks. However, if states parties see the purpose of science and technology reviews

as identifying risks and benefits and promoting effective action, a new mechanism is required.

Relatedly, states parties will also have to give consideration as to what they require in any report that comes from a future science and technology mechanism. Detailed technical summaries (including references for further reading) on developments will be important in providing depth to the analysis. However, such technical

reports will be insufficient unless translated into accessible summaries that address the implications of science and technology developments for the Convention in plain language.

Moreover, if states really want to take “effective action” then a review process should be tasked with making recommendations for consideration at subsequent political meetings.

How to determine the agenda?

The agenda of the 2012–2015 intersessional science and technology programme was determined at the Review Conference in 2011. This allowed states plenty of time to prepare materials on the topics of discussion. But determining the focus of discussions so long in advance made it difficult to address unanticipated developments in science and technology.

Consequently, some states have proposed that the agenda of a given science and technology discussion should be decided no earlier than at the Meeting of States Parties immediately preceding the gathering in question. Yet others have suggested that scientific experts could contribute to the determination of the agenda, on the grounds that they are likely to be best informed of the most relevant developments.⁹

A more flexible approach to setting the agenda would arguably make the process more nimble

and responsive, and therefore more useful to states parties. However, the issue of agenda setting is entangled with the question of what the purpose of a future BWC science and technology review mechanism or body should be.

A more flexible approach to setting the agenda would arguably make the process more nimble and responsive.

Should such a mechanism be tasked with reviewing specific advances in identified scientific fields and/or implications? Or should it produce recommendations for states parties to consider?¹⁰ These more purpose-driven questions require answers, as they will affect what form any future science and technology mechanism will take.

Possible modalities of a new review mechanism

One of the major areas of divergence between states parties at present concerns the structure and membership of a new science review mechanism. Two basic models can be identified from working papers:

1. A committee or board comprised of a limited number of technical experts nominated by states parties, or
2. An open-ended meeting format where any interested states parties (and potentially other stakeholders including non-governmental scientists) could participate.

Making its case for the former model, the Russian Federation proposed to establish a committee consisting of roughly 20 geographically representative participants who would remain in position for a period of five years.¹¹ This ap-

proach is modelled on the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons (OPCW) and as such offers a tried and tested precedent with the advantage of continuity in membership. However, the model lacks flexibility and it is questionable whether 20 participants could meaningfully cover the range of science and technology issues that might reasonably be anticipated in a BWC science and technology review.

Other states favour the latter, more open-ended framework. Under this model, governments would nominate an undetermined number of “national experts possessing know-how on specific topics”. In accordance with some proposals, such a group could be enhanced by the inclusion of “variety of specialists from academia, civil society and industry, serving in their personal capacity, when required”.¹²



Meeting of States Parties to the Biological Weapons Convention (BWC) held at the United Nations Office at Geneva from 1 to 5 December 2014 (Photo: U.S. Mission Geneva/ Eric Bridiers).

In circumstances where a broad range of topics may need attention, there is logic to a more flexible membership approach that allows a more fluid combination of nominated governmental experts and invited non-governmental specialists joining the process when their expertise is relevant. Essentially, the choice between the two models comes down to the question of how much control states parties are willing to cede in opening up discussions to non-governmental expertise.

The choice between the two models comes down to the question of how much control states parties are willing to cede in opening up discussions to non-governmental expertise.

COORDINATION AND SUPPORT

Of critical importance to the sustainability of any future process is that it is properly guided and supported. Proposals in this regard have included

1. that, at each meeting, the states parties elect a dedicated chairperson, and
2. that an individual is elected to provide overarching, continuous coordination for the duration of the intersessional period.

Many have also suggested that the BWC's Implementation Support Unit (ISU) should provide the "necessary administrative and substantive support"¹³ as is the norm in other treaty regimes. For a more ambitious science and technology process to succeed, a "capable secretariat is critical", and there will need to be an expansion of ISU staff.¹⁴ Expansion could potentially take the form of appointing an ISU "science officer"¹⁵ akin to the role undertaken by the OPCW's Science Policy Advisor.

WHO SHOULD FOOT THE BILL?

Financial considerations significantly undermined the ability of states to make progress in the closing stages of the 7th Review Conference. Accordingly, it will be important to take into account the costs of any proposal, including those linked to the science and technology process, in advance of the Review Conference in November 2016.

In terms of funding for an science and technology mechanism, many of the procedural costs would likely be covered through an increase to the assessed contributions of states parties.

In terms of funding for an science and technology mechanism, many of the procedural costs would likely be covered through an increase to

the assessed contributions of states parties. At the same time, consideration must also be given to how the cost of participants will be met. To assist in this regard, Switzerland has identified four models for funding participation:

- Option 1: States parties fund the experts they nominate.
- Option 2: A voluntary trust fund is established to sponsor the participation of experts from developing countries.
- Option 3: An official sponsorship programme is established based on assessed contributions to fund the participation of experts from developing countries.
- Option 4: Participation of all experts is financed by assessed contributions.¹⁶

In addition, Switzerland noted that if a single common language was used throughout the meetings, as is standard practice in scientific and technical meetings, costs for meeting interpretation would be reduced.

Conclusions and recommendations

- The 8th Review Conference offers an opportunity to enhance the framework for reviewing developments in science and technology of relevance to the Convention.
- The rapid pace of scientific advances necessitates a more frequent, flexible and robust science and technology review process, drawing in a broader range of expertise.
- A chair and an ISU science and technology officer should support such a process.
- Finally, any science and technology review body should be able to make recommendations for states parties to consider, a step that could usefully reinvigorate the science and technology review process and lead to more effective action.

ENDNOTES

- 1 Final Document, BWC/CONF.VII/7.
- 2 Statement by India, BTWC Tuesday 9 August 2016. PM session.
- 3 United States of America, BWC/CONF.VIII/PC/WP.3.
- 4 Switzerland, BWC/MSP/2015/MX/WP.11.
- 5 Russian Federation, BWC/CONF.VIII/PC/WP.2/Rev.2.
- 6 Switzerland, BWC/MSP/2015/WP.10.
- 7 Finland Norway and Sweden, BWC/CONF.VIII/PC/WP.7; Russian Federation, BWC/CONF.VIII/PC/WP.2/Rev.1; Switzerland, BWC/CONF.VIII/PC/WP.8 25; United Kingdom, BWC/CONF.VIII/PC/WP.4; United States, BWC/CONF.VIII/PC/WP.3
- 8 For example IAP “The Biological and Toxin Weapons Convention Considerations for a science advisory mechanism” (2016) <http://tinyurl.com/hg73a4z>.
- 9 See discussion BWC Tuesday 9 August 2016. PM session. Notes held on file.
- 10 See Switzerland, BWC/MSP/2015/WP.10 and IAP (2016) <http://tinyurl.com/hg73a4z>.
- 11 Russian Federation, BWC/CONF.VIII/PC/WP.2/Rev.2.
- 12 Finland Norway and Sweden, BWC/CONF.VIII/PC/WP.7.
- 13 Switzerland, BWC/CONF.VIII/PC/WP.16.
- 14 United States of America, BWC/CONF.VIII/PC/WP.3.
- 15 United Kingdom, BWC/CONF.VIII/PC/WP.4.
- 16 Switzerland, BWC/CONF.VIII/PC/WP.16.

TITLES IN THIS SERIES

The International Law and Policy Institute (ILPI) produced this series of briefing papers to coincide with the Eighth Review Conference of the Biological Weapons Convention:

1. RICHARD LENNANE, *Divide and delegate—The future of the BWC: While greater operational application of BWC provisions is clearly needed, states parties should not try to make the BWC something it is not.*
2. CAITRIONA MCLEISH and JAMES REVILL, *Keeping up with the scientists: To protect and implement the BWC, states parties must improve the framework for reviewing developments in science and technology.*
3. GREGORY D. KOBLENTZ and FILIPPA LENTZOS, *21st Century biodefence—Risks, trade-offs and responsible science: The dramatic increase in the number of laboratories and scientists working on dangerous pathogens and toxins has exacerbated safety and security risks.*

The papers were edited by Magnus Løvold (ml@ilpi.org) and Kjølvi Egeland (ke@ilpi.org). Torbjørn Graff Hugo provided layout. Camilla Waszink and Richard Lennane provided comments on early drafts.

Production of this series was made possible thanks to the support of the Government of Norway.

Electronic copies of any of these papers can be downloaded for free from wmd.ilpi.org.

ILPI

INTERNATIONAL LAW AND POLICY INSTITUTE

P.O. Box 1619 Vika, 0119 Oslo, Norway

ilpi.org