A key role for scientists in strengthening the Biological Weapons Convention

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Abstract

It is not easy to be optimistic about international security at the present time, but 9th Review Conference of the Biological Weapons Convention in December 2022 agreed a renewed effort to strengthen the Convention after decades of stagnation. In March 2023 an agreement was also reached on an agenda and timetable for this effort over the next two years. Scientists have a long history of providing valuable input to such meetings, in this paper, we discuss how such input might best be provided with complicated challenges now facing the BWC and concluded that there is much that could be done, but greater coordination amongst scientists is needed.

Key words

Civil society, Biological Weapons Convention, Review Conference, WHO

Introduction

Despite the difficult international security situation and the hostile nature of the international environment, specifically Russian allegations of Ukrainian bioweapon programs, State Parties to the Biological and Toxin Weapons Convention (BTWC) reached a consensus agreement to initiate a renewed effort to strengthen the Convention at the 9th Five-Year Review Conference in Geneva in December 2022. The key element of this new initiative was the establishment of the working group to “strengthen and institutionalise the Convention in all its aspects”. The

objective is to produce institutional mechanisms, that will allow for verification and compliance within BWC signatory states (BWC/CONF.IX/9, 2022, p.10).

The working group has already successfully concluded a first meeting in March 2023 and will continue meeting throughout 2023 in August and December. The working group also agreed their objectives and timetable for meetings to achieve their objectives over the next two to three years. The agreed agenda and timetable include a focus on verification processes and a repeated focus on scientific and technological developments relevant to the Convention and the setting up of a science and technology review mechanism for the Convention (BWC/WG/1/2,2023, p.6-7).

Historical evolution of the BWC in relation to technological changes

Since the conception of the Biological Weapon Convention in the 1970s states have agreed to prohibit the use, development, and stockpile of biological weapons. However, despite this many states still maintained stocks and research in secret in part as the biological weapons convention has no mechanism for verification and inspections (see: Caraus,2017, p.139&Arms Control Association,2022&Burns,2013, pp.75,76,171). Furthermore, since the early 2000's states have largely failed to agree on various mechanisms which would strengthen the biological weapons convention in response to technological changes including synthetic biology (Dando, 2023, p.82& Edwards, 2019, p.81-86). With fast advancing technologies, new challenges continuously bring new issues for the BWC, and these are not possible to be thoroughly examined in the time available to the State Parties within the general schedule of each year's meetings. Therefore, State Parties have started to address this problem, for example by thinking about a Science and Technology Review Mechanism, etc.

Functional Challenges and implications

The practical and complicated nature of BWC issues always bring challenges for State Parties. The current situations have several sets of issues that need to be addressed.

First, although the intended purpose of the working group was to explore verification and compliance mechanisms for the BWC, the inclusion of various other topics could increase the difficulty of reaching some consensus on a conclusion.

Second, the diplomats responsible to the BWC, are not always knowledgeable and fully dedicated to the BWC, especially for whose come from smaller and undeveloped states (pers. comm. 28/04/2023). Furthermore, many diplomats are regularly rotated resulting in the lack of expert knowledge of the BWC, especially knowledge of rapid S&T development in the field of biology (*Arms Control Today*, 2023).

Third, it's worth pointing out that the topic of verification is hotly contested in the context of the BWC. There is a great deal of divergence of which constitutes effective compliance and verification (pers. comm. 28/04/2023). Additionally, we could likely see the BWC inadvertently falling into institutional competition with the upcoming World Health Organisation 'pandemic treaty', which also empathises "governance and oversight mechanisms" (WHO,2023).

Finally, the Chemical Weapons Convention (CWC) and Organisation for the Prohibition of Chemical Weapons (OPCW) have a $77 million budget in comparison to the BWC which has only $686.69 thousand (OPCW, 2023 & UNODA, 2023), meaning that the BWC cannot afford to be interacting outside of this financial framework, in order to learn institutional aspects of

the CWC that could be applicable to the BWC. This problem is also felt within the opportunities provided by the BWC for biosecurity and safety. For example, the BWC offers a fellowship program but out of the 800 applications, only 20 places where available for funding (pers. comm. 28/04/2023). Overall, there are many institutional barriers worth considering within the BWC that are not immediately obvious.

Policy options for Non-Governmental Organisations (NGOs) and life scientists

Civil Society, and the scientific community in particular, have played a role in helping facilitate the negotiation and development of the BWC and the CWC for many years (Feakes,2003, p.97-100). A hybrid workshop in late April at London Metropolitan University including officials from Geneva and academics from around the world discussed how this kind of assistance to the States Parties to the BWC might be taken forward in this new intersessional process. Analysis of the discussion indicated widespread agreement that input from scientists could be very helpful for facilitating agreement on the scientific aspects of the forthcoming meetings. For example, through presentations as guests of the meeting, participating in side events and making specific statements. Yet it was also clear that the international scientific community needs to coordinate more effectively in order to help clarify important issues such as effective methods of oversight of potentially dual-use research, codes of conduct for scientists under the Convention and effective biosecurity education for life scientists. Therefore, it is hoped that further such hybrid meetings can help to assist in that coordination.

Moreover, the way by which NGOs and life scientists interact with diplomats from State Parties need to be enhanced. This process is vital if we are to bridge the gap between the scientific community, private sector, and diplomats. It is worth mentioning that NGOs have unique

opportunities to provide expert scientific advice, and importantly, about historical challenges non-proliferation regimes and arms control institutions have faced in the past.

Recommended Solutions: education, support, and networks.

With these challenges being presented above, it is worth considering some recommendations.

First, educating scientists in the opportunities they have in supporting the BWC is vital. As a result, there is a demand to teach biologists about security and history specifically related to biological weapons. Hence, this should be a future avenue for research for scholars in the field of international biological security.

Secondly, as mentioned before, there must be an effort to support diplomats within the BWC. Using civil society and NGO expertise within the working group is key. As noted, diplomats are particularly vulnerable to a lack of knowledge and time limitations. NGOs, experts, and civil society are therefore in a unique position to educate, support, and ultimately influence BWC diplomats.

The final point is using case studies to support the case for verification and compliance within the BWC. One example of promising success is a recent UK biological security strategy (Rose, et al,2023) which brings together experts, civil society, and government to work on biosecurity. In a few years' time the UK could be a promising case study for a national biosecurity strategy.

Overall, developing a strong unified civil society network will provide effective lobbying which will help to maintain institutional memory that is often absent amongst diplomats at the

BWC. In other words, it is up to civil society to be present at the BWC due to systemic challenges highlighted.

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