
The BWC New Process: A Preliminary Assessment

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When the Biological Weapons Convention (BWC) entered into force in 1975, it was a watershed in the field of disarmament—the first treaty to ban the development, production, stockpiling, and transfer of an entire category of weapons of mass destruction. Unfortunately, the BWC was burdened with a serious birth defect: the lack of formal measures to check compliance and punish violations. During the Cold War era when the treaty was negotiated, neither the Soviet Union nor the United States were willing to accept the highly intrusive onsite inspections needed to verify the nonpossession of biological weapons (BW) with a reasonable level of confidence.

Today, nearly 30 years later, the threat from biological weapons is generally perceived to be increasing. Several countries both inside and outside the BWC are suspected of possessing or actively seeking a BW capability, and the autumn 2001 anthrax-tainted letter attacks in the United States called attention to the dangers of these weapons in the hands of terrorists.¹ In addition, the worldwide diffusion of biotechnology and the accelerating pace of scientific progress in microbial genomics and genetic engineering could be misdirected to develop novel pathogens that are not only deadlier than natural strains but could defeat standard vaccines, antibiotics, and other countermeasures. According to a recent assessment by the Central Intelligence Agency, “The same science that may cure some of our worst diseases could be used to create the world’s most frightening weapons.”²

In the face of these ominous trends, the BWC is a fragile bulwark indeed. Compared to the other two pillars of the nonproliferation regime—the nuclear Non-Proliferation Treaty and the Chemical Weapons Convention—the BWC is by far the weakest and the least developed. As Nicholas Sims of the London School of Economics and Political Science has pointed out, the biological treaty is overshadowed by “growing anxiety over what effect science and technology [are] having on the balance of incentives and disincentives to abide by the Convention.”³ Thus, although the BWC currently has 151 states parties, a dangerous disconnect exists between the growing threat of biological weapons and the failure of the international community to reinforce the treaty regime in order to deal effectively with the problem of noncompliance—a failure for which the United States bears a substantial share of the blame. This paper reviews the history of efforts to strengthen the BWC and the current state of play, and concludes with some policy recommendations.

EFFORTS TO STRENGTHEN THE BWC

Since biological pathogens and toxins can be used for legitimate applications such as vaccine production and biomedical research, as well as for prohibited military ends, the BW disarmament regime seeks to permit peaceful or defensive activities while excluding hostile ones. Accordingly, Article I of the BWC bans member states from developing, producing, stockpiling, acquiring, or retaining biological agents and toxins “of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes.” (Laboratory research on pathogens and toxins is not covered because its purpose is inherently ambiguous.) The treaty also prohibits weapons, equipment, or means of delivery “designed to use such agents or toxins for hostile purposes or in armed conflict.”⁴

Because parties to the BWC may conduct research of any kind and may work with dangerous pathogens for permitted purposes, such as the development of protective drugs and vaccines, monitoring compliance with the basic prohibitions of the treaty is a challenging task. Unfortunately, the BWC includes no formal verification or inspection procedures. Article V calls on parties “to consult one another and to cooperate in solving any problems” related to implementation, while Article VI enables a member state that suspects another of a violation to “lodge a complaint with the Security Council of the United Nations.”⁵ Both measures were ineffective in the case of the Soviet Union, which systematically violated the BWC for nearly 20 years.

Because Moscow had the power to veto a Security Council investigation, one was accordingly never requested.

The Third Review Conference of the BWC in September 1991 strengthened Article V by establishing a formal consultative process, which has been used only once. From August 25-27, 1997, BWC member states met to discuss an allegation by Cuba that a U.S. aircraft had deliberately released a crop-destroying insect pest (*Thrips palmi*) over the island in an attempt to damage its agriculture. Despite the Cuban allegation and the U.S. rebuttal, a lack of objective data made it impossible for the participating countries to reach a definitive verdict.⁶ This experience suggests that a mechanism for addressing BWC compliance concerns can be effective only if implemented by an international organization that is seen as independent, objective, and competent.

BWC member states have sought to strengthen the treaty during review conferences, which have convened every five years since the BWC entered into force in 1975. The Second Review Conference in 1986 developed a series of politically binding confidence-building measures (CBMs), which were revised and expanded by the Third Review Conference in 1991. States parties agreed to annual exchanges of information on facilities and activities relevant to BWC compliance, including unusual outbreaks of infectious disease, vaccine production facilities, and biodefense programs. Since then, however, only a small minority of member states have submitted the CBM declarations on a consistent basis.

The Third Review Conference also authorized the creation of a group of verification experts (VEREX) to examine potential BWC verification measures from a scientific and technical standpoint. In September 1993, the VEREX group issued a report concluding that certain combinations of verification measures could increase transparency, enhance confidence in BWC compliance, and deter violations.⁷ A year later, a Special Conference of BWC parties agreed to establish the Ad Hoc Group (AHG) of interested member states with the mandate to negotiate a “legally binding instrument” to strengthen the treaty. From 1995 to 2001, the AHG met periodically in Geneva and developed a “rolling text” of a protocol designed to reinforce the BWC by setting out the modalities of a compliance-monitoring regime. The proposed system included mandatory declarations of biodefense programs and treaty-relevant facilities, routine site visits to validate the declarations, and challenge-type investigations of suspect facilities (declared or undeclared) and incidents of alleged bioweapons use or suspicious outbreaks of infectious disease.

It was clear from the outset that it would be difficult to verify the BWC with a high degree of confidence because of the technical characteristics of biological weapons: the dual-use nature of BW materials and production equipment, the blurry line between offensive and defensive development, and the fact that kilogram quantities of a biological agent such as the anthrax bacterium can be militarily significant (compared with many tons of a chemical agent like sarin nerve gas), making clandestine BW production and storage easier to conceal. As a result, the Clinton administration never used the traditional standard of arms control verification to justify the BWC Protocol and, indeed, banished the use of the term “verification” in conjunction with biological weapons. Even so, the administration believed that the BWC Protocol would help to promote transparency and compliance, deter violations, bolster the norm of nonpossession, and establish internationally accepted procedures for responding to suspected violations.

Since the text of the protocol had to be agreed by a consensus of all BWC member states participating in the negotiations, progress was slow. In an effort to move the stalled talks forward, AHG Chairman Tibor Tóth of Hungary converted the “rolling text” of the draft protocol into a “composite text” by replacing bracketed sections with compromise language designed to resolve outstanding issues. Tóth submitted the composite text to the AHG on March 30, 2001. Meanwhile, the new administration of President George W. Bush began a policy review of the BWC Protocol, which it had inherited from its predecessor.

During the 24th session of the AHG on July 25, 2001, U.S. Ambassador Donald Mahley dropped a bombshell by announcing that the United States had decided to reject the draft protocol on the grounds that it would not enhance confidence in BWC compliance and would put U.S. national security and proprietary business information at risk. The Bush administration had “moved the goalposts” by judging the draft protocol according to the traditional standard of arms control verification, an unrealistic metric that the Clinton administration had already rejected. In fact, over the course of the AHG negotiations, the United States had made the traditional standard even harder to achieve by limiting the scope and intrusiveness of the onsite inspection regime in an effort to safeguard national security information and industrial trade secrets. Mahley added that Washington did not wish to renegotiate the protocol, which it considered fatally flawed. “Because the difficulties with this text are . . . inherent in the very approach used in the text,” he said, “more drafting and modifications of this text would, in our

view, still not yield a result we could accept.” After the U.S. withdrawal, the AHG negotiations were suspended, bringing six and a half years of work to an abrupt halt.

The reasons for the U.S. resistance to intrusive onsite inspections became clearer on September 4, 2001, when the *New York Times* revealed the existence of three classified biodefense projects that Washington had not included in its CBM declarations: the recreation of a Soviet-era biological bomblet to assess its effectiveness, a plan to genetically engineer a vaccine-resistant strain of anthrax previously developed by Soviet scientists, and the construction of a small bioweapons plant to produce stimulant microbes with off-the-shelf equipment.⁸ The Bush administration claimed that these “threat assessment” studies were consistent with the BWC because the underlying intent was defensive. According to some legal experts, however, the recreation of the Soviet bomblet violated the Article I ban on the development and testing of specialized munitions to disseminate biological agents, which is categorical and unrelated to intent. Moreover, the fact that the biodefense studies were classified suggested that the United States had something to hide. If a country such as Iran had conducted the same activities in secret, Washington would have viewed them as indicative of offensive intent and hence illegal under the BWC.

As an alternative to the legally binding protocol, the Bush administration proposed a series of nine voluntary national measures to strengthen the BWC, including penal legislation, tightened controls on access to pathogens, extradition agreements, scientific codes of conduct, assistance to victims of biological attacks, clarification mechanisms to resolve suspected violations, and enhanced procedures for investigations of alleged BW use under the auspices of the UN Secretary General. Yet most of the proposed measures did not address state-level compliance directly and were too modest to be commensurate with the urgency and magnitude of the biological weapons threat.⁹

The Fifth Review Conference of the BWC convened in Geneva from November 19 to December 7, 2001, in the immediate aftermath of the fatal anthrax attacks in the United States. During this session, the U.S. delegation continued to press for voluntary measures to strengthen the treaty, several of which were successfully incorporated into the conference’s draft Final Declaration. Yet only two hours before the Fifth Review Conference was due to end, U.S. Ambassador John Bolton stunned other delegations by demanding the termination of the Ad Hoc Group’s mandate so as to preclude any future discussion of legally binding, multilateral measures to

strengthen the BWC. Because this eleventh-hour U.S. proposal was unacceptable to many delegations, the resulting deadlock threatened the collapse of the Review Conference.¹⁰ In an effort to defuse the crisis, Chairman Tóth suspended the conference for a year and engaged in intensive informal consultations with a variety of delegations.

When the Fifth Review Conference resumed a year later, on November 11, 2002, Tóth presented a proposal designed to bridge the gap between the United States and other BWC member states. Wisely, he avoided revisiting the controversial issues of the AHG and the BWC Protocol, which were simply left in limbo. Instead, Tóth envisaged a new, future-oriented process involving three annual meetings of member states prior to the next regularly scheduled BWC Review Conference in 2006 to “discuss, and promote common understanding and effective action” on voluntary measures to strengthen the convention and prevent bioterrorism.

THE NEW INTERSESSIONAL PROCESS

According to the Tóth proposal, which had been endorsed by the United States, BWC states parties would convene for one week each year from 2003 through 2005, augmented by two-week preparatory meetings of experts. At U.S. insistence, no more than nine weeks of multilateral meetings could be held between 2003 and 2005, and only five topics could be addressed at the annual meetings: (1) penal legislation, (2) security and oversight of pathogens and toxins, (3) investigations of alleged use and suspicious outbreaks of disease, (4) global epidemiological surveillance, and (5) scientific codes of conduct. The first two topics would be addressed in 2003, the second two in 2004, and the last in 2005, but no multilateral actions pursuant to the annual meetings could be undertaken prior to the Sixth Review Conference.¹¹

Tóth said that the proposal was non-negotiable, implying that the alternative was to halt all collective work on the BWC for three years.¹² Several countries, particularly members of the Non-Alignment Movement (NAM), expressed reservations about the limited scope of the agenda, which they believed could harm the unity of the treaty regime. After extensive consultations, however, BWC parties agreed unanimously to accept the chairman’s proposal. It remains unclear what will ultimately emerge from the “new process.” When Chairman Tóth presented his proposal in November 2002, he warned that the series of annual meetings risked becoming “an empty

shell or a fig leaf” devoid of substance, with BWC member states simply marking time until 2006. A preliminary assessment suggests that this concern was justified but that a more positive outcome is still possible.

The two BWC meetings in 2003 focused on national implementing measures. More than 400 individuals from 83 countries attended the preparatory meeting of experts in Geneva from August 18-29, 2003. The first week was devoted to national legislation to implement the prohibitions in the BWC, including penal legislation, and the second week to national measures to enhance the physical security and accountability of dangerous pathogens and toxins. Participating delegations submitted about 60 working papers, and the UN Secretariat compiled a large amount of relevant information on a CD-ROM that was distributed to all parties. The atmosphere at the experts’ meeting was constructive and collegial, and a large amount of practical information relevant to national implementation was exchanged over the two-week session. Even so, observers noted that “a distinct lack of ambition” pervaded the meeting.¹³ No effort was made to summarize or consolidate the national working papers in a systematic way so as to identify “best practices” that could help countries to craft domestic legislation.¹⁴

At the ensuing meeting of BWC member states, held in Geneva from November 10-14, 2003, several countries (including Germany, India, New Zealand, Pakistan, South Africa, and Sweden) argued for distilling the voluminous data exchanged at the experts’ meeting into a set of voluntary guidelines for penal legislation and biosecurity regulations that could be incorporated into the final conference document, thereby ensuring greater uniformity and consistency in how member states implement the BWC. In the words of German Ambassador Volker Heinsberg, “In our view, the primary task of this meeting of states parties should be the adoption of an agreed final document, identifying those common elements and recommending them for national implementation.”¹⁵

Other countries opposed the development of guidelines, however, because of the complexity of reconciling different national approaches and the fact that the one-week meeting provided too little time for such work. Even if the political will to negotiate standards had existed, the interval between the experts’ meeting and the political meeting was too short for the necessary preparatory work to be accomplished. Swiss Ambassador Chris-

tian Faessler suggested that “rather than seeking agreement on a common approach or on a set of minimum standards, it would be better to make all national legislations and measures more efficient and to promote their implementation.”¹⁶ The U.S. delegation likewise rejected the negotiation of “best practices” and stated that BWC member states should instead review, update, or implement their own national legislation and assist other parties in meeting their obligations. Ambassador Mahley argued that any attempt to negotiate common elements would distract states from acting promptly to get their own house in order and could result in a watered-down, least-common-denominator approach.¹⁷

The final product of the November meeting was a one-page political statement urging member states to enact or update national legislation making the prohibitions in the BWC binding on their citizens, imposing penal sanctions for violations, and tightening security over dangerous pathogens and toxins, yet without recommendations or guidelines for how to proceed. About a dozen countries offered to provide practical assistance through bilateral exchanges or regional workshops.¹⁸ This minimalist outcome failed to live up to the promise in the mandate of achieving “common understanding and effective action.” Even more worrisome, by rejecting the negotiation of multilateral guidelines, the United States has encouraged each member state to develop and implement its own rules on a national basis rather than sign on to a set of harmonized global standards. This ad hoc approach is likely to result in a patchwork of inconsistent regulations, giving rise to security gaps and areas of lax enforcement that proliferators and bioterrorists could exploit as targets of opportunity.¹⁹

PROSPECTS FOR THE NEXT TWO YEARS

To some extent, the BWC new process is useful because it keeps the attention of the international community focused on practical measures to implement and strengthen the treaty, and because the principle of a collective response has been preserved. If the participating states prepare adequately for the intersessional meetings, engage in constructive exchanges, and attempt to reach common understandings on key issues, they could help to strengthen important elements of the biological disarmament regime. But if BWC member states do not take the process seriously, it could easily become “an empty shell.” Unfortunately, the 2003 sessions have not set an encouraging precedent for the upcoming meetings this year and next.

The 2004 sessions will be chaired by South Africa and will consist of an experts' meeting in July followed by a political meeting of member states in December. These meetings will discuss field investigations of alleged BW use and global infectious-disease surveillance and response. Because these topics are inherently multilateral in character, they may be more conducive to concerted action. The sole topic on the agenda for 2005—scientific codes of conduct—is the area least relevant to action by member states. Even so, the United Kingdom, which will chair the 2005 sessions, plans to have a draft code of conduct ready for detailed discussion.

Considerable uncertainty remains over the fate of any common understandings or recommendations that may emerge from the new process. According to the mandate, the Sixth Review Conference is to “consider the work of these meetings and decide on any further action.” Because no multilateral followup may occur prior to 2006 and member states are not supposed to revisit topics discussed in previous years, any understandings reached at the annual meetings will have no legal status unless the Sixth Review Conference decides to incorporate them into its Final Declaration.²⁰ The 2006 conference also risks bogging down in debate over whether to focus on the five intersessional topics or to continue building on the cumulative understandings developed during previous review conferences.²¹

COMPLEMENTARY MEASURES TO STRENGTHEN THE BWC

Despite the advent of the new process, the BWC still lacks an effective mechanism to monitor compliance by member states and to punish violators. Given the failure to adopt a legally binding inspection system, nongovernmental organizations (NGOs) are attempting to fill the vacuum, at least on an interim basis. In late 2001, a group of eight NGOs working on BW issues, inspired by the success of independent monitoring and reporting in the fields of human rights, small arms, landmines, and the environment, agreed to collaborate in applying the concept of “civil-society-based monitoring” to the BWC. The resulting network of organizations, called the BioWeapons Prevention Project (BWPP), was launched officially on November 11, 2002.²² As of early 2004, 25 groups based in Europe, North America, and Africa were participating in the global network.²³

Based in Geneva, the BWPP monitors actions taken by governments to implement their legal and political obligations under the BWC and related treaties, as well as scientific and technical developments relevant to biological weapons and the biotechnology industry. In this way, the BWPP puts

member states on notice that their behavior is being watched, providing a degree of accountability and reinforcing the international norm against biological weapons. According to director Jean Pascal Zanders, the BWPP will interact with government representatives in Geneva and in national capitals, as well as with experts, international organizations, and representatives of the scientific community, industry, and the media.²⁴ Although the BWPP is a useful initiative, it is clearly second best to the creation of a legally binding compliance mechanism.

In parallel with the annual meetings, BWC member states and other interested parties should take a number of other actions to strengthen the treaty regime:

- *Pressure holdout states to accede to the treaty.* A number of states have signed but not ratified the BWC (e.g., Syria), while others have neither signed nor ratified (e.g., Israel). The larger the membership of the treaty, the stronger the international legal norm it represents. As the BWC approaches universality, it will come to be viewed as customary international law, binding even on those states that do not formally accede to it.
- *Create an information clearinghouse to facilitate national implementation measures.* BWC member states should establish a small office or web site to distribute information on best practices and model legislation.²⁵ A modest first step in this direction is the www.opbw.org web site, which provides downloadable files of BWC conference documents. Member states should also organize seminars on national implementation of the BWC, which could be held in cooperation with regional organizations.
- *Develop a BWC-related curriculum for biological scientists.* Specialists in the biological, biomedical, veterinary, and plant sciences must be sensitized to the potential for the misuse of research in these fields so as to stigmatize any effort to “weaponize” disease. As a standard element of the graduate curriculum in the biosciences, students should be educated about the provisions of the BWC, the risks of certain lines of scientific inquiry, and the norms of scientific responsibility and integrity. Scientists should also be encouraged to “blow the whistle” on colleagues involved in the development of biological weapons, and given safe channels for doing so without putting themselves at risk of retribution.
- *Strengthen international oversight of potentially hazardous biological research.* The recent publication of scientific papers describing how pathogens could be rendered more deadly or vaccine-resistant through fairly

simple genetic manipulations have raised concerns about the need to oversee such research to prevent its misuse by proliferators or terrorists. Because investigations in microbiology and molecular biology are being pursued worldwide, they must be regulated on a global basis. In October 2003, the National Research Council (NRC) of the U.S. National Academy of Sciences published an important report in which a panel of prominent scientists acknowledged the risks associated with the misuse of molecular biology to develop “improved” BW agents.²⁶ The NRC report proposed creating a voluntary process in the United States to review the security implications of seven types of potentially hazardous experiments, but it did not propose how such a review mechanism could be implemented globally. International scientific organizations should therefore organize working groups and conferences to address this challenging problem.

At the Sixth Review Conference in 2006, the following actions should be taken:

- *Address the five annual-meeting topics in the context of the BWC as a whole.* Instead of discussing these measures on an ad hoc basis outside the treaty framework, the Review Conference should aim to resume the normal BWC review process, including the development of cumulative understandings to strengthen the convention.
- *Make the existing CBMs legally binding and require complete declarations of national biodefense programs.* BWC member states should increase the transparency of their biodefense programs to reassure other parties that all development work for “protective” purposes is strictly defensive in nature. A reasonable rule of thumb is that explanatory titles and descriptions of all biodefense projects—even classified ones—should be included in national CBM declarations, while omitting details that could expose vulnerabilities or assist anyone seeking to acquire biological weapons.
- *Address the chronic “institutional deficit” of the BWC by creating a small secretariat.* Unlike the Chemical Weapons Convention, which has its own international organization in The Hague responsible for implementation and oversight, the BWC lacks even a small official secretariat. Such an entity is urgently needed to assist member states with basic tasks such as the preparation of national implementing legislation and annual CBM declarations, and to serve as a nucleus for the development of additional strengthening measures.

- *Urge BWC member states to establish an independent national review process to ensure that their biodefense research programs are fully compliant with the convention.* The secret U.S. “threat assessment” studies that the *New York Times* revealed in 2001 have sparked debate over what types of biodefense activities are permitted by the BWC. Member states should agree to establish a national legal review process, conducted by government agencies independent of those directly involved in biodefense research, to ensure that all such projects are treaty compliant.
- *Establish a permanent Group of Experts to monitor scientific and technical developments in the biosciences that could affect the BWC.* This panel would consist of leading microbiologists and infectious disease specialists, selected from a geographically representative list, who would serve for two-year terms on a rotating basis. In addition to tracking scientific advances, the Group of Experts could help to develop an international governance mechanism for the oversight of particularly dangerous or norm-threatening avenues of scientific research, such as the genetic engineering of pathogens.²⁷

CONCLUSIONS

Although the new process to strengthen the BWC has aroused low expectations, it could still yield some unexpected benefits. According to British analyst Jez Littlewood of the University of Southampton, the annual meetings could acquire a life of their own and transcend the strict constraints that the United States has sought to impose on them. By 2005, he predicts, a degree of momentum may have developed. Nevertheless, to the extent that the BWC new process continues to focus chiefly on voluntary national measures, it will be inadequate to address the urgent problem of noncompliance.

Even if the U.S. presidential elections in November 2004 bring about a change of administration in Washington, it is unlikely for political reasons that the BWC Protocol will be revived in its entirety, but key elements of the proposed regime could be pursued in a multilateral framework. For example, this year’s intersessional meetings will focus on strengthening an existing mechanism by which the U.N. Secretary General has the authority to assemble an international team of medical and scientific experts to investigate an alleged use of chemical or biological weapons. This mechanism originated during the early 1980s with the investigation of the alleged

“yellow rain” (mycotoxin) attacks in Southeast Asia, followed by inquiries into the reported employment of chemical weapons by Iran and Iraq during the Iran-Iraq War and by armed forces in Mozambique and Azerbaijan.²⁸

The historical record suggests that field investigations of alleged use can yield valid results only when the inspected country cooperates by providing information and granting access to the purported attack sites. It would therefore be desirable to negotiate a legally binding multilateral agreement requiring BWC member states to cooperate with field investigations of alleged biological warfare, including suspicious outbreaks of infectious disease. As a more ambitious step, member states might consider developing procedures for investigating *facilities* suspected of violating the convention, prior to any actual use of biological weapons.

Many of the measures on the agenda of the BWC new process are directed more at reducing the threat of bioterrorism than at ensuring state-level compliance with the treaty. In fact, it would be difficult for a subnational group to mount a major biological attack without assistance from a state sponsor or from weapons scientists who were formerly employed by a state-level BW program. For this reason, state-level compliance with the biological disarmament regime remains an appropriate focus of collective efforts to strengthen the international norm against BW possession and use, whether by governments or terrorist organizations.²⁹ Because the credibility of the BWC is diminishing at the very time when the potential misdirection of biological science and technology for hostile purposes poses growing dangers, the United States and other countries must show greater leadership in putting the treaty strengthening process back on track.

¹ In recent years, about a dozen states have been alleged to have BW programs. They include parties to the BWC such as Cuba, China, India, Iran, Iraq, Libya, North Korea, Pakistan, Russia, and Sudan, and nonparties such as Egypt, Israel, Syria, and Taiwan.

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