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## EDITOR'S NOTE

This issue of *Disarmament Forum* looks at assuring compliance with the Biological and Toxin Weapons Convention (BTWC). With the Sixth BTWC Review Conference almost upon us, the issue examines the implications of the 2002–2005 consultative process as well as strategies to strengthen the convention. Articles also address how various international, regional and national initiatives complement the convention, how to revitalize the convention's confidence-building measures, and describe the spectrum of supporting mechanisms for the convention that might be considered in the longer term. For the first time, the online version of *Disarmament Forum* is interactive, linking you directly to references available on the web.

The BWC Meetings Secretariat in the Geneva Branch of the Department for Disarmament Affairs has developed a new section of the UNOG web site devoted to the Biological and Toxin Weapons Convention ([www.unog.ch/bwc](http://www.unog.ch/bwc)). The site is an excellent resource for national delegations, international organizations, NGOs and the media on biological weapons and the BTWC in general, and the Sixth Review Conference in particular. The convention text, official conference documents, meeting accreditation procedures, press releases and information regarding NGO participation are just some of the topics covered by this comprehensive site.

With their recent use in Lebanon, the devastating humanitarian and socio-economic consequences of cluster munitions have once again captured international attention. As of the end of August 2006, over 200 individual cluster submunition-contaminated sites had been identified and over 1,200 unexploded submunitions had already been cleared. Despite this rapid response, unexploded cluster submunitions will continue to endanger civilian lives and thus complicate and delay the relief and reconstruction of that country.

Preparation for the Third Review Conference of the Convention on Certain Conventional Weapons (CCW) is well under way, and the next issue of *Disarmament Forum* focuses on how the international community could approach the issue of cluster munitions. Articles will describe the humanitarian impact of these weapons, look at previous use and existing stocks, examine relevant international humanitarian law, offer personal reflections from a deminer, and consider the potential role of civil society.

In July, UNIDIR Director Patricia Lewis and Grammy Award winner Herbie Hancock were the focus at a Montreux Jazz Festival workshop entitled "Artists as Peacemakers", organized by the International Committee of Artists for Peace. Both spoke movingly to a packed room about the role of music and poetry in building peace, and how the artistic process can engender critical understanding, teaching us both to listen and yet to be heard. Dr Lewis's presentation is available on the UNIDIR web site.

UNIDIR organized or participated in several side events at the Review Conference of the Programme of Action (PoA) on small arms in New York from 26 June to 7 July. These included presentations of capacity building for PoA reporting, a global survey of assistance for implementing the PoA and the final report of the project “European Action on Small Arms, Light Weapons and Explosive Remnants of War”, as well as discussions on a mechanism on illicit brokering and two Geneva Process events.

The Secretary-General’s Advisory Board on Disarmament Matters met in Geneva from 21 to 23 June 2006. The Advisory Board, which also serves as UNIDIR’s Board of Trustees, was chaired by Professor U. Joy Ogwu, Director-General of the Nigerian Institute of International Affairs.

Recent UNIDIR publications include *Cost Benefit Analysis of SALW Destruction versus Storage* (part of the “Costs of Disarmament” series), *Cluster Munitions in Albania and Lao PDR: The Humanitarian and Socio-Economic Impact*, and the conference proceedings from UNIDIR’s annual space security meeting, entitled *Building the Architecture for Sustainable Space Security*. See our web site for full descriptions and details on how to order.

And it with this issue that UNIDIR says goodbye to its Deputy Director, Dr Christophe Carle. Christophe’s ten years at UNIDIR have been marked by deepening the Institute’s work on the Asian region and on such cutting-edge issues as missile technology and asymmetric warfare. It was entirely due to Christophe that UNIDIR became part of the Geneva Forum at its creation. Christophe is much loved for his fondness for a good play on words and superb political cartoons. His intellectual contribution to all of the Institute’s endeavours, as well as his excellent sense of humour, will be truly missed. We wish him all the very best for the future.

***Kerstin Vignard***

## SPECIAL COMMENT

**A**s President-designate of the Sixth Review Conference of the Biological and Toxin Weapons Convention, to be held later this year, I welcome this issue of *Disarmament Forum* dedicated to the convention.

The preamble of the Biological and Toxin Weapons Convention (BTWC), one of the most concise and best written treaties, affirms forcefully that the use of biological agents and toxins as weapons is “repugnant to the conscience of mankind”. The convention captures each state party’s undertaking that it will “never in any circumstances” develop, produce, stockpile or otherwise acquire or retain biological weapons.

The BTWC is more important than ever before. Scientific advances and rapid developments in biotechnology mean that humankind’s understanding of life processes is evolving daily. With this understanding comes an even greater responsibility to ensure that the prohibitions enshrined in the convention are maintained.

For the past 31 years, the BTWC has successfully staved off the deliberate use of disease as a weapon, barring a few exceptions, or as a weapon of mass destruction. But the sheer destructive potential of such weapons if used by states or non-state actors remains terrifying. The international community therefore needs to take strong, coordinated action to ensure that the deliberate use of disease does not become a living nightmare for mankind, ever. The rapid advances in the life sciences and the fast growth of the biotech industry only add to the urgency of this task.

Our mission at the Sixth Review Conference is to achieve a successful outcome that adds value to the BTWC regime. We should wind up our work with the satisfaction that we have minimized the risk of the possible use of biological weapons and strengthened defences against their threat.

In 2006, we should make a confident start to promoting universal adherence to the convention and make plans to achieve this objective long before the next review conference. During the Sixth Review Conference, we hope to look at how articles of the convention are being implemented, review movement over the past four years and preview the calendar of activities beyond 2006. In this context, confidence-building measures, national implementation, the BTWC’s interface with other legal and normative measures, and international cooperation in the biosciences, biosafety and biosecurity should stimulate discussion and pave the way for appropriate decisions.

The Review Conference will also be an occasion to raise awareness about the BTWC, particularly among bioscientists and policy makers. Active cooperation between states parties and bioindustry will help stem abuse of the life sciences. The Sixth Review Conference should act as a catalyst in promoting such collaboration. This ought to be done in such a manner that the space for rapid development of the biosciences is fully respected, while ensuring that such advances are used only for the benefit of

mankind: advances in life sciences will be used to fight natural outbreaks and deliberate use of disease. All states parties should have the capacity to put in place robust mechanisms for disease surveillance and rapid response to health emergencies.

I want to commend *Disarmament Forum* for bringing out this issue on the BTWC with its sharp focus on the Sixth Review Conference and its likely outcome. It is timely and relevant. *Disarmament Forum's* earlier issue on "Science, Technology and the CBW Regimes", published in 2005, was of immense help to me in preparing for BTWC meetings.

I deeply appreciate UNIDIR's consistent and unfailing support for the BTWC process. This particular contribution will be a useful tool for diplomats, scientists, biobusinesses, civil society and international organizations.

***Masood Khan***

Permanent Representative of Pakistan to the United Nations

President-designate of the Sixth Review Conference of the Biological and Toxin Weapons Convention, Geneva

## Blood, toil, tears and sweat: the Biological and Toxin Weapons Convention since 2001

Richard LENNANE

“We are here to review the functioning of the Biological Weapons Convention under circumstances none of us would have wished and none of us foresaw.”

John R. Bolton, Head of the United States delegation to the Fifth Review Conference<sup>1</sup>

For lovers of spectacle and drama, the Palais des Nations was the place to be late in the afternoon of Friday 7 December 2001, the final day of the Fifth Review Conference of the Biological and Toxin Weapons Convention (BTWC). Tension had built to bursting point as the deadline crept relentlessly closer and delegates laboured feverishly to bridge the remaining differences in the draft final declaration. Could it be done? Only a few short hours remained: perhaps, if they stayed focused, they would get over the line. Suddenly, the conference room erupted. Flags flew up, junior diplomats scurried to retrieve their ambassadors from the coffee lounge, indignant delegates expressed their astonishment and dismay. Tempers flared, accusations of betrayal and treachery flew back and forth, distinguished heads of delegations, faces purple with rage, bellowed at each other nose to nose. Aggrieved spokespeople lectured startled journalists, or anyone else who would listen. Nobody actually banged a shoe on the table, but for the normally placid world of multilateral disarmament meetings, it was quite a show.

For devotees of the BTWC, however, and for partisans of disarmament and non-proliferation in general, the scene was deeply worrying. The Fifth Review Conference had failed to agree on a final declaration and had therefore been suspended for a year. Under the circumstances, the suspension was the only course open to the president of the conference, but there was no guarantee it would help: states parties were fundamentally and bitterly divided over the future of the convention, and it was difficult to imagine how the rift could be mended. Almost ten years of work developing an instrument to strengthen the convention had been lost, and nobody was able to say what, if anything, might take its place. Even the most optimistic and creative proponents of efforts to improve the convention were concerned; there was a real possibility that such efforts might come to a halt altogether. It was certainly a low point in the international quest to outlaw and prevent the possession and use of biological weapons.

Five years later, the picture is not nearly so grim. In fact, to the surprise of many observers, the convention has staged something of an unlikely comeback. At the forthcoming Sixth Review Conference, scheduled for 20 November–8 December 2006, there is reason to expect that states parties will gather

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<sup>1</sup> Richard Lennane is a political affairs officer in the BWC Meetings Secretariat at the United Nations Department for Disarmament Affairs (Geneva Branch), and has been secretary of a number of BTWC meetings, including the Fifth Review Conference.



less to exchange regrets and recriminations than to review an active and productive work programme held from 2003 to 2005, to decide on whether and how to continue it, and even to look at other possibilities for collective action. This is not to say that the divisions have vanished: there will undoubtedly be tensions and success is by no means guaranteed. But the story of the events of 2001 and how the BTWC states parties rose above them to continue to work together and strengthen the convention despite their differences is a compelling one, and is worth tracing in some detail.

### *The Fifth Review Conference: protocol, treason and plot*

In retrospect, it is perhaps surprising that the initial session of the Fifth Review Conference got as far as the final day. Three factors conspired to ensure it would be an extremely difficult meeting.

First, the abrupt collapse in July 2001 of the Ad Hoc Group negotiations on a protocol to strengthen the convention with verification and other measures. It had been widely assumed that the main task of the conference would be to adopt the draft protocol. Instead, states parties arrived bitterly divided over the fate of the protocol, and with no clear idea of what the conference should do.

Second, the terrorist attacks of 11 September 2001 in the United States. The international security scene was still reeling from the events: it was evident that traditional concepts of and approaches to international security were going to change radically, and that terrorism would become a whole new focus of concern, but it was still far from clear what exactly this would mean for multilateral disarmament and non-proliferation regimes such as the BTWC.<sup>2</sup>

Third, the “naming of names” of alleged violators by the United States. During the Review Conference’s general debate, the head of the United States delegation, John Bolton, accused Iran, Iraq, Libya and North Korea (all states parties), as well as Syria (a signatory), of running clandestine biological-weapon programmes in violation of the convention.<sup>3</sup> Those named reacted indignantly, but the problem for the conference was not so much the naming, more that the United States declined to offer any evidence or initiate formal procedures, yet still expected to include language on the non-compliance in the final declaration.<sup>4</sup>

The main contribution of this third factor was to sour the atmosphere of the conference and amplify the effects of the first two factors. The principal immediate effect of the attacks of 11 September 2001 was to sharpen differences over the protocol, and in particular to stiffen the United States’ resolve to ensure that the protocol was abandoned. It was therefore the first factor, the collapse of the Ad Hoc Group’s protocol negotiations, which was really the key to the success or failure of the conference, and which has remained the single most prominent element affecting the actions of states parties since 2001.

#### THE AD HOC GROUP

For much of the history of the convention, states parties had fretted over concerns of non-compliance and the lack of any machinery in the convention to verify compliance or investigate alleged breaches. The Second Review Conference, held in 1986, had introduced a system of confidence-building measures (CBMs) that was a small step toward addressing the problem. But the negotiation of the Chemical Weapons Convention in the late 1980s and early 1990s, with its extensive verification mechanisms, provided inspiration for a similar effort in the BTWC.<sup>5</sup> The Third Review Conference (1991) expanded the CBMs and commissioned an Ad Hoc Group of Governmental Experts, which

became known as VEREX, to “identify and examine potential verification measures from a scientific and technical standpoint”.<sup>6</sup> VEREX met in 1992 and 1993, considered a large number of possible on- and off-site measures, and concluded that while no single measure could determine whether or not a state party was in breach of the convention, measures in combination “could be useful ... in enhancing confidence, through increased transparency, that States Parties were fulfilling their obligations under the BWC”.<sup>7</sup> On the basis of the VEREX conclusions, the 1994 Special Conference established the Ad Hoc Group. The group was mandated to “consider appropriate measures, including possible verification measures, and draft proposals to strengthen the convention, to be included, as appropriate, in a legally binding instrument, to be submitted for the consideration of the States Parties”.<sup>8</sup> It was to define terms, establish lists and institute confidence-building, transparency and compliance measures. However, it also had to ensure that sensitive commercial information and national security needs were protected. The mandate explicitly included Article X of the convention, dealing with the peaceful uses of biological science and technology, and required that the Ad Hoc Group’s proposals would not impede efforts to improve science and technology cooperation.<sup>9</sup> This had been a key demand of many developing countries, and again parallels the approach of the CWC. It also helps to illustrate the degree to which the protocol was becoming the vehicle through which *all* the perceived shortcomings of the convention were to be addressed—not just verification.

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Negotiations in the Ad Hoc Group began in 1995 under the chairmanship of Tibor Tóth of Hungary. The Fourth Review Conference, held in 1996, noted the progress made and that the Ad Hoc Group would complete its work “as soon as possible before the commencement of the Fifth Review Conference”, thus setting a deadline for the negotiations.<sup>10</sup> Progress was excruciatingly slow, with a number of serious problems hampering the negotiations from the outset. These included:

- tensions between the security aims of the protocol and the Article X-related aspects, in particular concerning transfers of potentially dual-use equipment and technology;
- the difficulty of designing measures that were sufficiently intrusive to detect violations of the convention, but which would not compromise national security or commercial secrets; and
- the difficulty of deciding, and then clearly specifying, exactly which facilities and activities should be monitored through declarations and inspections.

Although there were undoubtedly significant political dimensions to these problems (especially the first), they all had their roots in the inherent difficulty of distinguishing between permitted and prohibited uses of biological science and technology. In comparison with the nuclear and chemical fields, biology is much more widespread, has far more “everyday” applications, notably in health and medicine, and the line between legitimate and illegitimate applications is much finer and harder to discern. There is also greater sensitivity over access to equipment and technology: it is one thing to restrict access to equipment needed to enrich uranium for nuclear fuel, but quite another to do the same for equipment needed to produce essential vaccines or drugs.

Despite the problems, however, over the years a draft protocol did take shape. Clearly modelled on the Chemical Weapons Convention, it included provisions for declarations of relevant facilities, various kinds of on-site “visits” to check these declarations, clarification procedures, investigations of alleged violations, national implementation requirements, various measures for scientific and technical cooperation, and an international organization to operate all this. But although the overall shape of the protocol was clear by around 1999, differences on the detail proved extremely hard to resolve. The rolling text on which the negotiations were based had become a complicated and confusing tangle of square brackets and alternative texts, with so many interlinkages and counter-proposals that many delegates found it difficult to recall who had proposed what in exchange for which understanding.

In late 2000, the chairman began hinting that he might attempt to cut the Gordian knot by producing a clean text, containing his best estimate of the deals and compromises necessary to achieve consensus. There was some resistance to this idea, mainly from members of the Group of the Non-aligned Movement and Other States (NAM),<sup>11</sup> perhaps due to a fear of losing bargaining leverage. But Tóth went ahead and tabled his so-called “composite text” in April 2001, shortly before the twenty-third and penultimate session of the Ad Hoc Group.<sup>12</sup> Reactions were mixed, with some delegations—again mostly from the NAM—insisting that the rolling text should remain the basis of negotiations. Others welcomed the production of the composite text, but signalled various objections to its content. In any case, no changes were made to it for the twenty-fourth and final session of the Ad Hoc Group, which was held from 23 July to 17 August 2001.

At the time Tóth was preparing and presenting his text, however, a new government had taken office in the United States. It was widely known that the Bush Administration was reviewing a whole range of foreign policies, including its approach to the BTWC and the protocol. But it nevertheless came as something of a surprise to many delegations when, shortly after the start of the twenty-fourth session, the United States announced that it could support neither the composite text, nor the approach of a protocol at all:

After extensive deliberation, the United States has concluded that the current approach to a Protocol to the Biological Weapons Convention, an approach most directly embodied in CRP.8, known as the “Composite Text,” is not, in our view, capable of achieving the mandate set forth for the Ad Hoc Group, strengthening confidence in compliance with the Biological Weapons Convention. One overarching concern is the inherent difficulty of crafting a mechanism suitable to address the unique biological weapons threat. The traditional approach that has worked well for many other types of weapons is not a workable structure for biological weapons. We believe the objective of the mandate was and is important to international security, we will therefore be unable to support the current text, even with changes, as an appropriate outcome of the Ad Hoc Group efforts.

The draft Protocol will not improve our ability to verify BWC compliance. It will not enhance our confidence in compliance and will do little to deter those countries seeking to develop biological weapons. In our assessment, the draft Protocol would put national security and confidential business information at risk.

... Because the difficulties with this text are both serious and, in many cases inherent in the very approach used in the text, more drafting and modification of this text would, in our view, still not yield a result we could accept.<sup>13</sup>

This announcement immediately halted negotiations on the composite text, and began an interminable exchange of recrimination and rebuttal that continues to this day. The rest of the twenty-fourth session was devoted to drafting the report of the Ad Hoc Group for the Fifth Review Conference. But in the end the group failed to agree even on a report, due to a dispute over how to describe the failure of the negotiations.

#### THE FIFTH REVIEW CONFERENCE: CRACKS TOO WIDE TO PAPER OVER

The United States was widely criticized for its sudden and complete rejection of the protocol at such a late stage in a very long negotiation. Certainly, many states parties—including close allies of the United States—were exasperated, not least because many of the weaknesses in the composite text

cited by the United States were only there in the first place partly or entirely because of US insistence. But for its part, the United States had some reason to resent being painted as the villain of the piece, or at least as the sole villain. First, as US representatives protested, it was not a sudden change in policy: the United States had always expressed strong reservations about the feasibility of CWC-style verification for the BTWC. Second, the flaws in the composite text highlighted by the United States were not imaginary: they had also been recognized by others, although not given such weight. Third, the composite text was far from agreed: it was not even clear that it had been accepted as the formal basis for negotiation. Many serious issues remained to be settled, and there was no guarantee that the text would have secured consensus by the end of the Ad Hoc Group's twenty-fourth session even without the United States' intervention. The United States' rejection, it could be argued, provided convenient cover for other delegations who also found the text unacceptable (and perhaps the whole idea of a protocol unwelcome). Indeed, as one ambassador was heard to observe cynically, "support for the composite text in some quarters seems much stronger after the announcement of 25 July than before".

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This, then, was the situation confronted by BTWC states parties at the opening of the Fifth Review Conference: the draft protocol, representing a complete and integrated package of measures to improve and strengthen various aspects of the convention, had been rejected. The United States' position had been further hardened by the events of 11 September and the anthrax letters, which, in the view of the United States, only further demonstrated how little use an instrument like the protocol would be to its security interests.<sup>14</sup> Other states parties were variously disappointed, dismayed or angry at the waste of many years of negotiation, and fearful for the future of *all* multilateral disarmament and non-proliferation efforts. A few may have been secretly relieved at the failure of the Ad Hoc Group, and eager to profit by the opprobrium being cast on the United States.

It was certainly not an auspicious beginning for a multilateral conference. But as the general debate got under way, and excepting the naming names controversy, many states parties from across the regional groups demonstrated a good deal of constructive pragmatism. It became apparent from the statements that a large proportion of delegations thought that all was not lost, and that negotiations on a protocol—or some kind of instrument, perhaps aimed more explicitly at terrorism—could at some stage be resumed. It quickly emerged that the best strategy would be to aim for a final declaration that somehow kept options open on the Ad Hoc Group and the protocol, while establishing some interim or "follow-up" activities to fill the gap in the meantime. Work toward such an outcome crept forward, hampered by a tense atmosphere and constant recriminations. By the final day, according to the president of the conference (Tibor Tóth again), the text of the draft final declaration was "95 per cent" agreed.<sup>15</sup>

But then came the bombshell: late in the afternoon, the United States circulated a textual proposal establishing some "follow-up" activities of the type that had been discussed, but explicitly terminating the Ad Hoc Group and its mandate. Uproar followed; Tóth quickly secured agreement to suspend the conference and resume it after a one-year "cooling off" interval.<sup>16</sup>

### ***Dark times, desperate measures***

It is difficult to overstate the mood of pessimism that descended following the suspension. Tóth, however, was apparently undaunted by the turn of events, and immediately set himself to engineering a rescue package. For most of 2002 he consulted key players intensively, trying to find a potential outcome that could attract consensus and still deliver some kind of practical impetus to the

implementation of the convention. His theme was that there were two possible approaches to improving the convention. One was through a single, one-off instrument, as was done with the CWC. The other was a gradual, incremental approach where instruments and activities were added and expanded over time, as had been done in the nuclear field with the International Atomic Energy Agency. Tóth argued that now the one-off approach had failed, it was time to try the gradual alternative.

Many states parties were sympathetic to Tóth's approach, but he was working in an atmosphere of deep distrust and suspicion. Some states parties felt that they had been "twice bitten" by the United States and had no inclination to cooperate, having seen their earlier attempts at compromise abruptly swept aside. Others worried that agreement on some kind of incremental process would mean an end to any hope of an eventual return to negotiations on a legally binding instrument. Some NAM delegations in particular were concerned that the "balance" of the Ad Hoc Group mandate would be lost in any new process: they feared that, if the United States had its way, a new process would deal only with security aspects of the convention and not with Article X at all.

Despite the difficulties, Tóth persisted, cajoling and entreating states parties not to give up, assuring them that something worthwhile could be retrieved from the mess. It was evident he was considering some kind of programme of "follow-up" activity, but as the resumed session approached, he played his cards close to his chest. At the opening of the resumed session on 11 November 2002, he tabled a proposed outcome that was as brief as it was unusual, telling the assembled delegations that it was this or nothing. The proposal read as follows:

1. The Conference decides to hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on:
  - i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;
  - ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;
  - iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;
  - iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animal, and plants;
  - v. the content, promulgation, and adoption of codes of conduct for scientists.
2. All meetings, both of experts and of States Parties, will reach any conclusions or results by consensus.
3. Each meeting of the States Parties will be prepared by a two week meeting of experts. The topics for consideration at each annual meeting of States Parties will be as follows: items i and ii will be considered in 2003; items iii and iv in 2004; item v in 2005. The first meeting will be chaired by a representative of the Eastern Group, the second by a representative of the Group of the Group of Non-Aligned and Other States, and the third by a representative of the Western Group.
4. The meetings of experts will prepare factual reports describing their work.
5. The Sixth Review Conference will consider the work of these meetings and decide on any further action.<sup>17</sup>

This proposal was to be the sole outcome of the Review Conference: Tóth explained that he did not think the political circumstances would allow consensus on a final declaration of the traditional kind. He went to some lengths to sell the proposal, and in particular to highlight the Article X-related parts, especially 1(iii). Nevertheless, there was considerable resistance, both to the proposal itself and to the fact that Tóth would not entertain any amendments to or negotiation on the text, insisting that it was the only outcome that had any chance of attracting consensus. It was widely assumed—and certainly never denied by Tóth—that the text had been cleared by the United States: indeed, parts of the proposal were very similar to proposals made by the United States at the initial session of the conference. This increased suspicions and reluctance, but Tóth stayed firm: if the states parties wanted to continue multilateral work of any kind to strengthen the convention, they would have to trust his judgement that this was the only feasible option. If they rejected the proposal, nothing would be done until at least the Sixth Review Conference in 2006. Any changes to the proposal, Tóth maintained, would result in its certain rejection (presumably by the United States).

It was an unconventional approach, and Tóth came under heavy pressure to relent, but in the end he prevailed. His text was incorporated without change into the report of the Fifth Review Conference, forming the substantive part of the Decisions and Recommendations section.<sup>18</sup> Many delegations, especially in the NAM, agreed to this only with the greatest reluctance. The NAM made a statement at the conclusion of the conference, which included the following:

The NAM and Other States are disappointed at the limited nature of the decision that we have just taken. We are disappointed that we have again foregone [*sic*] the opportunity to strengthen the Convention and that limited work, which at best only has the potential of enhancing the implementation of the Convention, is all that could be achieved despite our best endeavours.

The NAM and Other States, together with other like-minded States Parties, have, however, succeeded in preventing any attempt to foreclose the option of more meaningful work in the future. The NAM and Other States, together with other like-minded States Parties, have also succeeded in preserving multilateralism as the only vehicle for preventing the reprehensible use of disease as instruments of terror and war in a sustainable way.<sup>19</sup>

Certainly, compared to a legally binding protocol, the outcome was slim indeed. Many delegations—and not just those in the NAM—were unhappy with the narrow mandate implied by “discuss, and promote common understanding and effective action on”: no negotiations or binding agreements were envisaged. The limited range of topics was also a matter for concern, although it was widely agreed that the topics that were included were sensible ones. There was a good deal of uncertainty as to how the new process would work, and few if any delegations expected that it would do much more than provide some nominally multilateral activity to fill in the time until the 2006 Review Conference.

### *A new hope?*

Whatever their reservations and resentments might have been, however, the states parties cannot be faulted for their earnest and businesslike approach to this new process once it got under way. Although there was a degree of nervousness surrounding the initial meeting of experts, an impressive total of 83 states parties assembled to discuss the topics of national implementation and security of pathogens, many of them bringing experts from capitals. The initial debate produced some statements reiterating dissatisfaction with the fate of the protocol and the outcome of the Fifth Review Conference, but the meeting quickly moved on to expert presentations, most of which were relevant and informative.

It is possible that one reason for the pragmatic approach was that growing concern about terrorism had engendered a genuine interest in many states parties in better national implementation and pathogen security, and the chance to exchange ideas with other governments was timely and welcome.

The main anxiety was over the form of the outcome of the meeting. The United States was evidently worried about any kind of negotiated or agreed binding outcome, on the grounds that this might somehow lead back to a protocol. Iran, on the other hand, appeared to be worried about the same thing, but for the completely opposite reason: that a binding outcome would in effect be a substitute for a protocol, and would thus prevent an eventual return to negotiations under the Ad Hoc Group mandate. This curious congruence of views ensured that the outcome was very general: the report of the meeting of experts drew no conclusions at all, but annexed all the “statements, presentations and contributions” made at the meeting. The report of the meeting of states parties contained a short statement where the states parties “agreed ... on the value of” various general steps related to the two topics.

The meetings in 2004 built on the practices established in 2003, with the new chairman, Peter Goosen of South Africa, taking advantage of the more relaxed atmosphere—and of the genuine interest of many states parties in the 2004 topics, especially disease surveillance—to take some modest additional steps. In particular, Goosen commissioned background papers from the Secretariat so that delegations would be aware of the current situation relating to each of the topics and thus able to focus on what could be done in future. Rather than simply attach all the individual statements and contributions to the report of the meeting of experts, he introduced the practice of extracting the actual proposals or suggestions from each contribution and compiling them into a list. This was at first controversial, but a draft list released at the end of the first week reassured many that there was nothing sinister afoot. The final list was attached to the report, with an almost comical paragraph in the report specifying that it was not agreed and had no status.<sup>20</sup>

After the meeting of experts, Goosen pushed still further by preparing a “synthesis” of the list of proposals that removed the duplications, grouped the proposals thematically, and packaged the result as something that looked suspiciously like a draft outcome document for the meeting of states parties.<sup>21</sup> Some delegations were alarmed at this, but in the end Goosen did not push his “synthesis” as an outcome document. Instead he produced a more modest and general draft outcome that was nonetheless considerably more specific than the 2003 one. After some negotiation<sup>22</sup> and modification, this text was agreed, using the same “agreed on the value of” formulation to avoid making binding recommendations. The most interesting issue concerned the United Nations Secretary-General’s mechanism for investigating cases of alleged use of biological weapons, which in the absence of the protocol is the only existing option for mounting an international investigation under agreed rules. This mechanism had been developed in stages between 1982 and 1990 and it had not been updated.<sup>23</sup> Goosen’s synthesis paper and first draft of an outcome had included an agreement that the states parties would request the Secretary-General to review the mechanism. This proved too controversial to succeed, and revealed that some states parties had serious reservations about the appropriateness and utility of the mechanism.<sup>24</sup>

John Freeman of the United Kingdom chaired the 2005 meetings, which dealt with codes of conduct for scientists. Freeman followed the same approach as Goosen, extracting proposals from contributions to the meeting of experts, producing a synthesis paper, and in due course an outcome document that—as in 2004—drew from the synthesis but was more modest and general. Freeman also introduced the innovation of inviting representatives of international, regional and national scientific and professional bodies to participate in the meeting of experts as “guests of the meeting”. This was a considerable step for a convention that had hitherto permitted only states and—with limitations—

intergovernmental organizations to participate in its meetings. It was allowed only because of the particular topic under consideration,<sup>25</sup> but was widely regarded as a useful exercise that did a good deal to raise awareness—both of the convention in the scientific community, and of scientific perspectives in the diplomatic and security circles.

### *Lessons for the future*

By the time of the conclusion of the meeting of states parties in 2005, it was clear that this inter-review process, agreed with much reluctance as a kind of emergency or stop-gap measure in 2002, had in fact been surprisingly successful in improving the operation of the convention and reducing the risks of biological weapons being developed, acquired or used. Naturally, opinions differed on just how successful and worthwhile the exercise had been, and it would be wrong to suggest that the voices of dissatisfaction over the fate of the protocol and the outcome of the Fifth Review Conference had died away. The limited range of topics considered remains the single biggest complaint about the new process, and accusations of “cherry-picking” and neglect of the “promotional” aspects of the convention are still frequently heard.

Opinions also differed on *why* the new process had worked so well—relatively speaking—given its fraught antecedents. Some believed that the limited mandate was a reason for the success: states parties did not have to worry about negotiating a binding agreement, and so could afford to relax and engage in free and wide-ranging discussion and exchange of information, which, moreover, helped them improve coordination of their various government agencies nationally. Others thought that the limited mandate detracted from the utility of the process, as the inability to distil the discussions into an agreed set of recommendations represented a missed opportunity and meant that much of the information shared was effectively wasted, especially for those states parties that did not participate in the meetings. Many believed that the greater involvement of, and exchange with, international organizations and civil society was the key to the success of the exercise, and points the way forward at a time when the convention is increasingly seen as just one part of an interlinked series of measures aimed at security, public health and disaster response. Others are still wary of involving “outsiders” in the business of the convention, and of mixing weapon and security issues with health and humanitarian concerns.<sup>26</sup>

What does come through consistently, however, is that despite the divisions and a residue of bitterness, a large majority of states parties have been prepared to put political differences aside and simply get on with making the best of the limited options available for collective efforts to strengthen the convention. This does not mean that they have changed their outlook or abandoned their principles: at the Preparatory Committee for the Sixth Review Conference, held 26–28 April 2006, the NAM,<sup>27</sup> the European Union<sup>28</sup> and a new grouping of Latin American states<sup>29</sup> all stated that a mechanism to verify the convention remained their long-term aim. It does mean that they view the convention as too important to be left in limbo.

*A large majority of states parties have been prepared to put political differences aside and simply get on with making the best of the limited options available.*

This encouraging conclusion has been further reinforced by the success of the Preparatory Committee for the Sixth Review Conference, which was faced with a difficulty over references to the Ad Hoc Group in the provisional agenda for the Sixth Review Conference that threatened to reignite disputes over the protocol and block agreement on the agenda. The states parties overcame this potentially paralysing problem with a compromise that, if not elegant, at least enabled them to get the job done.



If this attitude of pragmatism endures, and if states parties continue to recognize the fundamental importance of the convention to their security, there is reason to be cautiously optimistic about the Sixth Review Conference. It will not be easy—the temptation to settle scores remains barely concealed—but the resilience and resourcefulness displayed by so many states parties since 2002 suggests that it may be possible to shape an outcome that will allow work to continue that both contributes to the operation of the convention in its own right, and helps lay the foundations for the realization of future aspirations. With this in mind, it is interesting to recall a long-forgotten part of the report of the 1994 Special Conference, which said: “the complex nature of the issues pertaining to the strengthening of the Biological Weapons Convention underlined the need for a *gradual approach* towards the establishment of a coherent regime to enhance the effectiveness of and improve compliance with the Convention” (emphasis added).<sup>30</sup> Looking back to the wreckage of 2001, the states parties have much to be proud of in how they have retrieved the situation. Let us hope that the confidence they have earned takes them further still.

### Notes

1. Statement to the Fifth Review Conference of the Biological and Toxin Weapons Convention, 19 November 2001, at <[www.us-mission.ch/press2001/1911bolton.htm](http://www.us-mission.ch/press2001/1911bolton.htm)>.
2. Shortly before the conference opened, the anthrax letter incidents in the United States not only provided a pertinent demonstration that biological terrorism was more than a theoretical threat, but also cast new uncertainty over the respective roles of national and international avenues of response and investigation.
3. John R. Bolton, 19 November 2001, op. cit.
4. As Bolton later said, reasonably enough, it was perfectly legitimate to raise compliance concerns at a review conference, and to name alleged violators just as is done, for example, at the Commission on Human Rights. John R. Bolton, “The Biological Weapons Convention: Challenges and Opportunities”, briefing at the Monterey Institute of International Studies, 11 January 2002, at <[www.cns.miis.edu/pubs/programs/dc/briefs/011102.htm](http://www.cns.miis.edu/pubs/programs/dc/briefs/011102.htm)>.
5. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, opened for signature 13 January 1993, entered into force 29 April 1997, at <[www.opcw.org](http://www.opcw.org)>.
6. Final Document, Third Review Conference, UN document BWC/CONF.III/23, Part II, at <[www.opbw.org/rev\\_cons/3rc/docs/final\\_dec/3RC\\_final\\_dec\\_E.pdf](http://www.opbw.org/rev_cons/3rc/docs/final_dec/3RC_final_dec_E.pdf)>.
7. Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint, Report, UN document BWC/CONF.III/VEREX/9, 24 September 1993, at <[www.opbw.org/verex/docs/CONFIII-VEREX-9.pdf](http://www.opbw.org/verex/docs/CONFIII-VEREX-9.pdf)>.
8. Final Report, Special Conference, UN document BWC/SPCONF/1, Part II, 19–30 September 1994, at <[www.opbw.org/spec\\_conf/docs/conf/BWC\\_SPC\\_1\\_E.pdf](http://www.opbw.org/spec_conf/docs/conf/BWC_SPC_1_E.pdf)>.
9. Full title: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, opened for signature 10 April 1972, entry into force 26 March 1975, at <[www.unog.ch/bwc](http://www.unog.ch/bwc)>.
10. Final Document of the Fourth Review Conference, UN document BWC/CONF.IV/9, Part II, at <[www.opbw.org/rev\\_cons/4rc/docs/rev\\_con\\_docs/i\\_docs/IV-09.pdf](http://www.opbw.org/rev_cons/4rc/docs/rev_con_docs/i_docs/IV-09.pdf)>.
11. Hereinafter referred to, for the sake of brevity, as the “NAM”, although the Group of the NAM and Other States in the BTWC includes China, Brazil and Mexico.
12. Protocol to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, UN document BWC/AD HOC GROUP/CRP8, 3 April 2001, at <[www.opbw.org/ahg/docs/CRP8.pdf](http://www.opbw.org/ahg/docs/CRP8.pdf)>.
13. Donald A. Mahley, Statement by the United States to the Ad Hoc Group of Biological Weapons Convention States Parties, 25 July 2001, at <[www.us-mission.ch/press2001/0725mahley.htm](http://www.us-mission.ch/press2001/0725mahley.htm)>.
14. This was elaborated in John Bolton’s statement of 19 November 2001, op. cit.
15. UN press release, 7 December 2001, at <[disarmament2.un.org/wmd/bwc/fifth/bwc7Decb.pdf](http://disarmament2.un.org/wmd/bwc/fifth/bwc7Decb.pdf)>.
16. For a thorough and entertaining account of the roller coaster ride that was the Fifth Review Conference, see Jenni Rissanen, 2002, “Left in Limbo: Review Conference Suspended on Edge of Collapse”, *Disarmament Diplomacy* 62, January–February, at <[www.acronym.org.uk/dd/dd62/62bwc.htm](http://www.acronym.org.uk/dd/dd62/62bwc.htm)>.
17. Draft Decision of the Fifth Review Conference, UN document BWC/CONF.V/CRP3, 6 November 2002, at <[www.opbw.org/rev\\_cons/5rc/docs/rev\\_con\\_docs/i\\_docs/BWC-CONFV-CRP03.pdf](http://www.opbw.org/rev_cons/5rc/docs/rev_con_docs/i_docs/BWC-CONFV-CRP03.pdf)>.

18. Final Document, Fifth Review Conference, UN document BWC/CONF.V/17, 2002, paragraph 18, at <[www.opbw.org/rev\\_cons/5rc/docs/final\\_dec/BWC-CONF.V-17-\(final\\_doc\).pdf](http://www.opbw.org/rev_cons/5rc/docs/final_dec/BWC-CONF.V-17-(final_doc).pdf)>.
19. Statement on Behalf of the Non-Aligned Movement and Other States, UN document BWC/CONF.V/15, 15 November 2002, at <[www.opbw.org/rev\\_cons/5rc/docs/rev\\_con\\_docs/i\\_docs/BWC-CONF.V-15.pdf](http://www.opbw.org/rev_cons/5rc/docs/rev_con_docs/i_docs/BWC-CONF.V-15.pdf)>.
20. *Report of the Meeting of Experts*, UN document BWC/MSP/2004/MX/3, 11 August 2004, paragraph 18, at <[www.opbw.org/new\\_process/mx2004/bwc\\_msp.2004\\_mx\\_3\\_E.pdf](http://www.opbw.org/new_process/mx2004/bwc_msp.2004_mx_3_E.pdf)>.
21. *Synthesis of Considerations, Lessons, Perspectives, Recommendations, Conclusions and Proposals Drawn from the Presentations, Statements, Working Papers and Interventions Made by Delegations on the Topics under Discussion at the Meeting of Experts: Chairman's Paper*, UN document BWC/MSP/2004/L.1, 1 December 2004, at <[www.opbw.org/new\\_process/msp2004/BWC\\_MSP\\_2004\\_L.1\\_E.pdf](http://www.opbw.org/new_process/msp2004/BWC_MSP_2004_L.1_E.pdf)>.
22. Which everyone agreed was not negotiation, since the meeting had no negotiating mandate. Who said multilateral processes were inflexible?
23. For a full description of the Secretary-General's investigation mechanism, see *Mechanisms Available to States Parties to Investigate the Alleged Use of Biological or Toxin Weapons and to Provide Assistance in Such Cases*, UN document BWC/MSP/2004/MX/INF.3, 1 July 2004, at <[www.opbw.org/new\\_process/mx2004/bwc\\_msp.2004\\_mx\\_inf.3\\_E.pdf](http://www.opbw.org/new_process/mx2004/bwc_msp.2004_mx_inf.3_E.pdf)>.
24. Among the concerns stated were that the mechanism had not been negotiated multilaterally and that it had been designed for a specific circumstance (the Iran–Iraq war of the 1980s) and was thus no longer relevant.
25. As is made clear in the report of the Meeting of Experts, which states: “in recognition of the special nature of the topic under consideration at this Meeting and without creating a precedent, 23 scientific, professional, academic and industry bodies participated in informal exchanges in the open sessions as guests of the Meeting of Experts”. UN document BWC/MSP/2005/MX/3, 5 August 2005, paragraph 13, at <[www.opbw.org/new\\_process/mx2005/bwc\\_msp.2005\\_mx\\_3\\_E.pdf](http://www.opbw.org/new_process/mx2005/bwc_msp.2005_mx_3_E.pdf)>.
26. For an interesting account of a fuller discussion, by those actually involved, of the pros and cons of the new process, see the Summary Report of the Geneva Forum seminar “Meeting the Challenges of Reviewing the Biological and Toxin Weapons Convention”, held 9–10 March 2006, at <[www.geneva-forum.org/Reports/20060309-10.pdf](http://www.geneva-forum.org/Reports/20060309-10.pdf)>.
27. Statement by Malaysia on Behalf of the Group of Non-aligned and Other States Parties, 26 April 2006, available at <[www.opbw.org](http://www.opbw.org)>.
28. Statement by Austria on behalf of the European Union, 26 April 2006, available at <[www.opbw.org](http://www.opbw.org)>.
29. Joint Declaration by Argentina, Brazil, Colombia, Costa Rica, Chile, Ecuador, Guatemala, Mexico, Peru and Uruguay, 26 April 2006, available at <[www.opbw.org](http://www.opbw.org)>.
30. Final Report, Special Conference, UN document BWC/SPCONF/1, Part II, 19–30 September 1994, at <[www.opbw.org/spec\\_conf/docs/final\\_dec/SPC\\_final\\_dec\\_E.pdf](http://www.opbw.org/spec_conf/docs/final_dec/SPC_final_dec_E.pdf)>.



# Strengthening structures for the Biological and Toxin Weapons Convention: options for remedying the institutional deficit

Nicholas A. SIMS

Compared with most other multilateral treaties for arms control and disarmament and notably its “nearest neighbour”, the Chemical Weapons Convention, the Biological and Toxin Weapons Convention (BTWC) suffers from an institutional deficit. Structures are needed to strengthen the BTWC, to channel collective support for this relatively fragile treaty regime and to enable states parties to work together more effectively in the common interest.

The Sixth Review Conference should afford a good opportunity to exchange views on such strengthening structures. This article analyses different options for remedying the institutional deficit, starting with a long-term prospect and working back to more immediate options.

## *The ultimate answer: OPBW*

The ultimate answer to the institutional deficit is an Organization for the Prohibition of Bacteriological (Biological) and Toxin Weapons (OPBW). It is ultimate in two senses: it is attainable only in the long term, given the strength of United States opposition since 2001, and it is the fullest possible institutional expression of states parties’ collective commitment to the convention.

Opposition to an OPBW has been closely bound up with the United States’ rejection of the protocol strengthening the BTWC. This was first under discussion in the BTWC Ad Hoc Group from 1995, and then more formally under negotiation from July 1997 to August 2001.<sup>1</sup> Many states parties remain convinced that “the only sustainable method of strengthening the Convention is through multilateral negotiations aimed at concluding a non-discriminatory legally binding agreement, dealing with all the Articles of the Convention in a balanced and comprehensive manner”.<sup>2</sup> Many others remain “committed to developing measures to verify compliance with the BTWC”.<sup>3</sup> Yet there is a general recognition that these are long-term objectives, which cannot even be discussed in a BTWC forum as long as US policy remains intransigent.

It is conceivable that an OPBW could be revived, but in another context, independent of the failed protocol project of 1995–2001 and of specific verification procedures and compliance measures. For this, it would be necessary for states parties to develop a new concept of a BTWC treaty regime to make the convention “work properly”, a regime that would systematically realize the BTWC’s potential and remedy its areas of weakness or insufficiency.

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This new concept could be developed by review conferences as they regain confidence after the debacle of 2001–2002. They could give the treaty regime new momentum by building on the foundations laid in the extended understandings, definitions and procedures agreed in the conferences of 1980–1996. Thus the review process could cumulatively give greater substance to the treaty regime, building a steadily expanding body of “additional understandings and agreements”<sup>4</sup> to fill out the convention without having to amend the text.<sup>5</sup>

But at some point the capacities of the review conference process will be exhausted, and a supplementary legal basis will be required. It is not clear, however, when this will be: the limits of a review conference’s authority have never yet been established. A reasonable working assumption is that review conferences are competent to authorize interim arrangements, subject in most cases to renewal or replacement by the next review conference, but that permanent institutions require separate negotiation. This distinction can also be reasonably assumed to apply to the negotiation of politically binding versus legally binding commitments.

On this working assumption, before an OPBW could be created, states parties would have to have agreed to supplement the convention with a legally binding instrument concerning the OPBW. Logically, the instrument would extend beyond organizational commitments (financial sustenance and the like) to include whatever additional functions or responsibilities the states parties desired in connection with the OPBW that would make the convention “work properly”.

## ORGANS OF THE OPBW

Throughout the BTWC protocol negotiations, the Ad Hoc Group followed the precedents of the 1993 Chemical Weapons Convention (CWC) and the 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT), and the OPBW was to have three principal organs.<sup>6</sup>

- Conference of the States Parties: the supreme governing body on which every state party as a member of the organization is represented;
- Executive Council: also intergovernmental but with a restricted (and partly rotating) membership, regularly elected on a regionally representative basis by the conference;
- Technical Secretariat: the supporting body of international civil servants headed by a Director-General.

This three-tier structure remains a reasonable working assumption for the design of a future OPBW.

## THE OPBW CASE IN SUMMARY

The BTWC is not a self-executing treaty and the world does not offer a benign environment in which it will flourish untended. On the contrary, it is a fragile entity in need of careful nurture. Thus, an OPBW remains a desirable long-term objective because making the BTWC work properly will require pooling of resources into a permanent organization for the thoroughly practical purposes of helping states parties undertake the full range of BTWC functions and responsibilities. The great advantages of a permanent organization are convenience and flexibility. A permanent organization offers the convenience of standing arrangements with a permanent staff attending to them, instead of the states parties having to renegotiate arrangements and re-engage staff every time they meet. (This is one explanation of why over time so much traditional conference diplomacy has evolved into international

organization.) It is flexible because it can respond to whatever vicissitudes the treaty regime encounters, instead of being so narrowly mandated to deal with particular tasks that it is helpless when faced with new and unpredictable circumstances.

As long as it lacks an OPBW, the BTWC treaty regime will continue to lag behind that of the CWC and may send the unintended message that biological and toxin weapons are somehow less important to prohibit and prevent than chemical weapons. By creating an OPBW, the states party to the BTWC would be negating that unintended message in the most effective way. They would also be making a valuable contribution to the building of disarmament machinery as a permanent feature on the international scene.

### *More immediate options for strengthening structures*

In the meantime, states parties may be willing—tentatively and reversibly—to pool more limited resources in much more modest arrangements for strengthening structures to handle their common interests on a collective basis. Although the institutional deficit will not be fully remedied this side of an OPBW, even such modest arrangements could usefully alleviate the problem. The possible structures include annual meetings, an intersessional committee of oversight, scientific and legal advisory panels, a standing secretariat and an implementation support unit. Each will be examined in turn.

#### ANNUAL MEETING

Disarmament delegations have become accustomed to spending a total of three weeks each year in Geneva on BTWC business. In 2003, 2004 and 2005 a two-week meeting of experts has been followed by a one-week meeting of states parties on specific topics. It would be just one more step to formalize the practice as an annual meeting of the BTWC, and further annual meetings have been proposed to the Sixth Review Conference as the “work programme” for 2007–2010.<sup>7</sup>

The annual meeting could continue the best aspects of the 2003–2005 meetings, but the constraints on agenda topics would be removed. In this way, the regime would benefit from continuity and even momentum. The meetings should be plenary sessions with a synoptic view of the BTWC treaty regime. Only specific, compliance concerns would be hived off: either to a consultative meeting convened at expert level and open to all states parties under the contingency mechanism agreed as an “appropriate international measure” under Article V;<sup>8</sup> to the Security Council in the event of a state party invoking the complaints procedure under Article VI; or, conceivably, to the United Nations Secretary-General if the alleged use of biological or toxin weapons stood to be investigated.<sup>9</sup> Everything else would *potentially* be on the agenda of the annual meeting. If desired, specified aspects of the convention could be placed more prominently on the agenda in particular years, but in such a way as to give all aspects some attention between review conferences.

It would be most important to make time every year for collective scrutiny of scientific and technological developments relevant to the convention, preferably with the benefit of advice from a scientific advisory panel (discussed below). Regular agenda items should also include: the pooling of experience and proposals on Article X implementation (developing relevant science and technology for peaceful uses); updates on action plans on national implementation and on universalization of the convention (which it is to be hoped the Sixth Review Conference will have launched);<sup>10</sup> a “consolidation agenda” of follow-up to earlier review conference commitments; and scrutiny of the information to be declared through the United Nations by 15 April each year under the confidence-building measures (CBMs).<sup>11</sup>

But the agenda should not consist exclusively of matters for report. Agenda construction, building but also aiming to improve on the experience of 2003–2005, should be more imaginative and seek a new balance of government-led discussion *and* accommodation of the wider community of “friends of the convention”. Time should be allowed for general review and discussion arising from regional and individual initiatives of states parties, and for input from intergovernmental organizations, from the International Committee of the Red Cross as a unique international organization, and from non-governmental organizations.

Whether the annual meeting should be preceded by a meeting of experts, or by several thematic groups working in parallel, is for further consideration; but it would probably be inadvisable to compress everything into just two weeks of the year. Having secured three weeks a year for the BTWC in 2003–2005, it would seem a pity to settle for less in 2007–2010. The assumption is that the Seventh Review Conference will be held in 2011 and preceded by a Preparatory Committee, totalling at least three weeks in all.

#### INTERSESSIONAL COMMITTEE OF OVERSIGHT

The concept of an intersessional committee of oversight dates from the 1980s and early 1990s, when the gaps between review conferences yawned wide and empty, the emergent treaty regime suffered from neglect by most states parties most of the time, and nothing else seemed even remotely attainable as a possible remedy for the institutional deficit. “An entirely new kind of committee”, appointed by one review conference and reporting to the next, was proposed.<sup>12</sup> Various conceptualizations as an intersessional committee, a standing committee or a committee of oversight, two things were plain all along: it would have to be representative of the states parties as a whole, and its mandate would have to be carefully framed to ensure that it did not arrogate to itself functions or powers that properly belonged to the review conference or elsewhere. It became clear that such a committee could most economically be brought into being as a prolongation of the life of the bureau of the review conference, a body that works beyond the duration of the review conference, and that is already appointed following the nomination of states parties on a representative basis.<sup>13</sup> The bureau would simply have its post-conference existence formalized and it would not be necessary to elect a separate committee. It would be chaired by the president of the review conference, some of whose responsibilities have always extended into the five years until the next review conference. The committee’s work pattern and priorities would be largely determined by those decisions of the review conference that needed follow-up or that highlighted particular aspects for continuous attention on behalf of the collectivity of states parties.

The attraction of simply continuing the bureau and the presidency was that it required only the evolution of an existing institution. A distinct new committee would require negotiation of its title, composition and mandate, and then election, which would have been no less arduous than the painstaking negotiation of those matters for the initial Ad Hoc Group of Governmental Experts (also known as VEREX) in 1991 or for the subsequent Ad Hoc Group in 1994. Indeed, since both VEREX and the Ad Hoc Group were plenary bodies, it is very likely that to attempt to set up a body of limited membership, and a new kind of body at that, would prove even more difficult.

Proposals for some kind of representative intersessional body have never come to fruition, even at the Third Review Conference, where their chances of success were perhaps at their (relative) best because “during the Third Review Conference a significant number of states parties did in fact commit themselves to the idea of supporting institutions”.<sup>14</sup> In recent years they have receded to the margins of diplomatic interest for two reasons. One is the growing acceptance of a pattern of BTWC meetings for

all states parties in each of the years between review conferences, albeit on a restricted agenda basis. The other is the perception that a broad-agenda annual meeting is attainable as an evolution out of the restricted-agenda meeting of states parties, and could perform all the functions proposed for a representative committee without having to establish and sustain its representative character.

Since the initial proposal for an intersessional committee, then, the scene has been transformed. The perceived threat of biological and toxin weapons (if not always the BTWC) has greater prominence, and other, arguably more attractive, remedies for strengthening the convention's structures and processes have emerged. So the intersessional committee of oversight should probably be regarded nowadays as a second-best option, an alternative to the annual meeting if the latter is blocked and the discouraging prospect of an empty interval of five years between review conferences opens up again.

## ADVISORY PANELS

Advisory panels, like other remedies prescribed short of an OPBW, would be interim arrangements that could be introduced on the authority of the Sixth Review Conference or a subsequent gathering of states parties by decisions that could be modified or even reversed by the same authority. They would not be entrenched institutions and, more importantly, their creation would not require amendment of the convention.

### *Scientific advisory panel*

The range of factors and their interrelation in motivating the repudiation of biological and toxin weapons is complex, but one of the things which would most evidently weaken the credibility of their repudiation is any scientific or technological development that could make biological or toxin weapons easier to develop, more effective to use or harder to detect or protect against. A scientific advisory panel would enable states parties to keep a watch over such developments.

The case for a panel is a relatively familiar one.<sup>15</sup> It rests partly on governments' need for expert advice, partly on the desirability of pooling assessments for the benefit of all. Individual governments doubtless make their own assessments and will go on making them. But in a multilateral treaty like the BTWC there ought to be a place for collective assessment. And the absence of verification provisions for the BTWC makes the work of a scientific advisory panel all the more essential. The panel would maintain constant watchfulness on relevant scientific and technological developments, and would be able to warn states parties how and where the balance of incentives and disincentives that upholds BTWC compliance may be coming under pressure.

*The pace of change is such that states parties need to examine the implications of change for the BTWC and compare notes every year.*

Until now, updates on advances in relevant fields of science and technology have taken place on a multilateral level during the preparation for each review conference.<sup>16</sup> But in a fast-moving field like the life sciences and their applications, a five-year interval is too long. The pace of change is such that states parties need to examine the implications of change for the BTWC and compare notes every year. A panel would in principle be free to survey the whole spectrum of developments in science and technology, though in practice it would identify areas of greater relevance to the BTWC, continuing a process of identification to which review conferences have already made a limited contribution.



While the word “research” appears nowhere in the convention, the absence of a related “regime of research” weakens it.<sup>17</sup> Any progress in agreeing prudent constraints on research would strengthen the ban on development, which *is* in the convention. The states parties have already recorded (in 1991) their agreement “that experimentation involving open-air release of pathogens or toxins harmful to man, animals or plants that has no justification for prophylactic, protective or other peaceful purposes is inconsistent with the undertakings contained in Article I” of the BTWC.<sup>18</sup> It would be good if they could record more self-denying ordinances of that kind, extending further into laboratory research: states parties would clearly benefit here from scientific advice formulated collectively in the interests of the BTWC as a whole. The panel might arrive at a position of advising against a line of research because of its implications for the BTWC.

To be effective, the panel must consist of experts in whom governments have confidence, and who enjoy the respect of the wider scientific community. The whole exercise needs to be placed on a systematic basis, with the panel members in frequent contact and meeting as often as necessary but at least once a year. This panel would not seek to replicate the Organisation for the Prohibition of Chemical Weapons’ Scientific Advisory Board, which is a statutory organ of the CWC: it would not be such a heavy structure, but instead a lightly organized, readily adaptable mechanism sufficiently nimble to fulfil the fast-changing requirements of the BTWC.

There would be merit in a clear reporting line from the panel to annual meetings of states parties or an intersessional committee of oversight so that states parties could act collectively on its recommendations without waiting for the next review conference. A recent recommendation from the Weapons of Mass Destruction Commission chaired by Hans Blix, while not explicitly advocating a scientific advisory panel, makes the link between more frequent assessment and the resulting action in these terms:

States parties should ensure more frequent reassessment of the implications of scientific and technological developments and reaffirm that all undertakings under Article I of the Biological and Toxin Weapons Convention apply to such developments.<sup>19</sup>

It is worth recalling that biological and toxin weapons pose threats to humankind and demand a common effort to counter them. Such an effort should be organized in the context of the BTWC, and a scientific advisory panel would play a vital part in putting this effort on a systematic, expert and collective basis.

### *Legal advisory panel*

Not as great a priority as a scientific advisory panel, a legal advisory panel has not been advocated as widely. Yet there is a respectable case for having one.

Each government receives its own legal advice and will doubtless go on doing so; but with a legal advisory panel, a multilateral treaty regime like that of the BTWC would be able to resolve its controversies multilaterally. Some of the BTWC’s legal controversies—mostly those concerning rival interpretations of Article I—are well known, some are relatively obscure; what can be predicted with confidence is that there will be new ones. A legal advisory panel would not lack work, even if it confined itself to those questions already identified as contentious.<sup>20</sup>

The main argument heard against a legal advisory panel is that it would be unnecessarily divisive. Governments may prove more tenacious of their juridical positions even than of their scientific assessments, and correspondingly less willing to modify them to arrive at a collective opinion. If this is

so, then a legal advisory panel might merely serve to amplify discordant voices and provide a fresh arena for acrimonious exchanges.

However, against this, there needs to be weighed the corrosive effect on the BTWC of allowing rival interpretations to continue indefinitely, with no concerted attempt to resolve them. If different governments understand their obligations differently, there is an absence of symmetry, which at best is unhelpful and at worst erodes the basic reciprocity of obligation on which all treaty relationships are founded.

#### STANDING SECRETARIAT

The idea of endowing the BTWC with a standing secretariat has recently received a boost of welcome support from the Weapons of Mass Destruction Commission (WMDC). Its Recommendation 34 reads:

States Parties to the Biological and Toxin Weapons Convention should establish a standing secretariat to handle organizational and administrative matters related to the treaty, such as review conferences and expert meetings.<sup>21</sup>

At a minimum, this would formalize the position of the BWC Meetings Secretariat within the Geneva Branch of the United Nations Department for Disarmament Affairs. It might also (depending upon the limitations states parties choose to place upon its role) be tasked with functions in support of the convention all year round. These could usefully include:

- adding value to CBM returns and increasing their accessibility through assisting in their processing and dissemination;
- providing technical assistance to states parties with national implementation;
- following up review conference decisions on a continuous basis where this is necessary, for example in respect of action plans on universalization and national implementation, or on the “consolidation agenda”;
- facilitating contact between the states parties and intergovernmental, international and non-governmental organizations, including relevant sectors of industry and the scientific and academic communities;
- enabling the scientific and legal advisory panels, if appointed, to fulfil their respective functions;
- producing updated editions of the Additional Understandings and Agreements document, which links extracts from Final Declarations to the relevant articles of the convention; and
- acting as an enquiry and information point on behalf of the convention.

All these activities *might* be justified (some more easily than others) in terms of follow-up to specific review conferences or meetings of states parties, or in preparation for a forthcoming conference or meeting; but it is surely neater and more straightforward to see them as the proper functions of a standing secretariat for the convention, and to allow the use of the title “BWC Secretariat”, without “Meetings” in the middle.

Such a move may be politically sensitive in some quarters, but the alternative is to perpetuate the legal fiction that the secretariats of each review conference, each preparatory committee, and each meeting of states parties and its attendant meeting of experts, are distinct entities and, by implication, that no continuity in the secretariat function is needed between meetings.

The staffing complement would doubtless remain modest, based on current arrangements: there has never been any danger of the BTWC states parties creating an unnecessary bureaucracy to administer their treaty regime. Some evolution would nevertheless be necessary. At least one CBM-processing specialist, one science and technology specialist and one legal specialist would be desirable, reporting to a Senior Political Affairs Officer as head of secretariat. Additional staff might be needed for intensified consultation with states parties over implementation assistance, and with non-parties over progress toward ratification or accession, if these aspects of action-plan follow-up involve too much work for one legal specialist to handle alone. And as before, the secretariat might need reinforcement with extra staff around the time of special events such as review conferences and possible annual meetings.

A standing secretariat, the term used in the WMDC recommendation, is conveniently neither explicitly interim nor explicitly permanent. This should help it to achieve broad acceptability. If accepted by the Sixth Review Conference—or by a subsequent meeting under its authority—as part of a package of strengthening structures for the BTWC, it would probably have the same interim and reversible status as the other structures already discussed. The Seventh Review Conference would decide in 2011 whether to renew, adjust or revoke the secretariat’s mandate (or, if proceeding by negative resolution, would be able to stop it from continuing into the next five years).

#### IMPLEMENTATION SUPPORT UNIT

“Provision for BTWC implementation support” might be among the tasks of a standing secretariat, or could be undertaken by an implementation support unit.<sup>22</sup>

An implementation support unit has the advantage that it may allay fears (however unwarranted) of a standing secretariat spreading its wings too wide by becoming “politicized” or simply engaging in task expansion. As a unit it is confined to supporting states parties in implementing particular aspects of the convention. It could expect to be tasked directly by the review conference or by an annual meeting. Similar to the 1997 Mine Ban Treaty’s<sup>23</sup> Implementation Support Unit, which has been of interest despite the differences between the two conventions, it might be funded by a small but gradually expanding number of individual states parties. (In the BTWC context the members of the European Union might well contribute some funding collectively, having recently adopted a Joint Action channelling funds toward outreach and implementation of the BTWC.<sup>24</sup>)

The main disadvantage of an implementation support unit, for the BTWC, is its relative inflexibility compared with a standing secretariat. By its very nature it is more narrowly angled or oriented toward particular tasks, thus it is less well placed to respond to changing needs or priorities for the treaty

***Unlike a standing secretariat, an implementation support unit would not be able to shift its mandate according to priorities.***

regime as a whole. In 2006, the top priorities appear to be technical assistance with national implementation, universalization and CBM-processing, but in a few years’ time, states parties’ perceptions of where help is most needed may have shifted. Unlike a standing secretariat, an implementation support unit would not be able to shift its mandate according to priorities. So an implementation support unit may be regarded as a second-best remedy—and much better than nothing if it proves impossible to overcome opposition to a standing secretariat.

Be it a standing secretariat or an implementation support unit, the body would work under the political direction of the states parties represented by either the presidency and bureau of the most recent review conference or the annual meeting, and within the management structure of the UN Department for Disarmament Affairs.

To create *neither* a standing secretariat *nor* an implementation support unit would be a major failure of the Sixth Review Conference, because it would leave a key dimension of the BTWC's institutional deficit unresolved.

## Conclusion

In the long run, the BTWC needs an OPBW. Until a change of circumstances brings a new context that makes that possible, however, there are short-term measures that states parties can and should take to alleviate the institutional deficit of the convention.

A modular approach to strengthening the BTWC emphasizes the separability of proposed remedies for the different areas of weakness in the treaty regime, including the institutional deficit.<sup>25</sup> Adopting this approach, the Sixth Review Conference might approve—or open the way to a subsequent meeting approving under its authority—an annual meeting (or, failing that, an intersessional committee of oversight); a scientific advisory panel and possibly a legal advisory panel; a standing secretariat (or, failing that, an implementation support unit). Each could exist independently of the others. For the conference to approve any one of them would be a useful advance.

Yet there is an evident synergy among all these institutions. They *could* stand alone; but there is also a logic of integration according to which an annual meeting would operate better for receiving advice from panels of scientific and legal experts, and for being served by a standing secretariat to which it could also look for continuing work on a year-round basis. Likewise, advisory panels and a standing secretariat would be able to operate better for the regular political direction of an annual meeting to which they could report. In more abstract terms, the interplay between the technical and the political realms, and between science, law and diplomacy, would be enhanced by such integration. Throughout the history of disarmament, these have been recurrent disjunctions. There is now a good opportunity to overcome them in the case of the BTWC.

## Notes

1. Jez Littlewood, 2005, *The Biological Weapons Convention: A Failed Revolution*, Aldershot, Ashgate, especially Part II, "The Protocol Negotiations"; Chapter 8, "The Organization", is particularly relevant to this article. For more on the negotiations in this issue of *Disarmament Forum*, see the article by Richard Lennane.
2. Statement by the Delegation of Malaysia on Behalf of the Group of Non-aligned Movement and Other States Parties to the Biological Weapons Convention, BWC Meeting of States Parties, 5 December 2005, available at <[www.opbw.org](http://www.opbw.org)>.
3. Statement by Fiona Paterson, UK Deputy Permanent Representative to the Conference on Disarmament, on behalf of the European Union, BWC Meeting of States Parties, 5 December 2005, available at <[www.opbw.org](http://www.opbw.org)>.
4. This is the title given to the article-by-article compilation of extracts from past Final Declarations that the Secretariat has been asked to prepare for the Sixth Review Conference, UN document BWC/CONF.VI/INF.1, 11 July 2006.
5. For more on the possible work of review conferences, see Nicholas A. Sims, 2003, "Biological Disarmament Diplomacy in the Doldrums: Reflections after the BWC Fifth Review Conference", *Disarmament Diplomacy* 70, April–May, pp. 11–18, at <[www.acronym.org.uk/dd/dd70/70op2.htm](http://www.acronym.org.uk/dd/dd70/70op2.htm)>.
6. Littlewood, 2005, op. cit. p. 193.
7. Statement by Fiona Paterson, see note 3.
8. See the Final Declaration of the First Review Conference, UN document BWC/CONF.I/10, 21 March 1980, and Second Review Conference Final Declaration, UN document BWC/CONF.II/13/II, 26 September 1986, both available at <[www.opbw.org](http://www.opbw.org)>.
9. For the text of the BTWC, go to <[www.unog.ch/bwc](http://www.unog.ch/bwc)>: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, opened for signature 10 April 1972, entry into force 26 March 1975.

10. For more on the proposed action plans, see Statement by Paul Meyer, Ambassador and Permanent Representative of Canada to the Conference on Disarmament, BWC Meeting of States Parties, 5 December 2005, available at <[www.opbw.org](http://www.opbw.org)>.
11. These agenda items are discussed in more depth in Nicholas A. Sims, 2006, "Towards the BWC Review Conference: Diplomacy Still in the Doldrums", *Disarmament Diplomacy* 82, Spring, pp. 8–16, at <[www.acronym.org.uk/dd/dd82/82ns.htm](http://www.acronym.org.uk/dd/dd82/82ns.htm)>.
12. Nicholas A. Sims, 1988, *The Diplomacy of Biological Disarmament: Vicissitudes of a Treaty in Force, 1975–85*, London, Macmillan, pp. 298–306.
13. Charles C. Flowerree, 1990, "On Tending Arms Control Agreements", *The Washington Quarterly*, vol. 13, no. 1, Winter, p. 199.
14. Littlewood, 2005, op. cit., p. 191.
15. See United Kingdom Foreign and Commonwealth Office, 2002, *Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons*, Green Paper, London, The Stationery Office, 29 April, at <[www.fco.gov.uk/Files/kfile/btwc290402,0.pdf](http://www.fco.gov.uk/Files/kfile/btwc290402,0.pdf)>; Statement by Paul Meyer, see note 10.
16. The process goes back to the preparatory committee session of 9–18 July 1979, which asked the depositaries to prepare a background paper and invited other states parties to comment on that paper and also to submit their views on new scientific and technological developments relevant to the convention.
17. Nicholas A. Sims, 2001, *The Evolution of Biological Disarmament*, SIPRI Chemical and Biological Warfare Studies no. 19, Oxford, Oxford University Press, pp. 179–182.
18. Final Declaration, Third Review Conference, UN document BWC/CONF.III/23, 27 September 1991, at <[www.opbw.org/rev\\_cons/3rc/docs/final\\_dec/3RC\\_final\\_dec\\_E.pdf](http://www.opbw.org/rev_cons/3rc/docs/final_dec/3RC_final_dec_E.pdf)>.
19. Weapons of Mass Destruction Commission, 2006, *Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms*, Stockholm, Recommendation 36, at <[www.wmdcommission.org](http://www.wmdcommission.org)>.
20. For more on the legal advisory panel, see Nicholas A. Sims, 2006, "Legal Constraints on Biological Weapons", in Mark Wheelis, Lajos Rozsa and Malcolm Dando (eds), *Deadly Cultures: Biological Weapons since 1945*, Cambridge, MA, Harvard University Press, pp. 329–354.
21. Weapons of Mass Destruction Commission, 2006, op. cit.
22. Statement by Paul Meyer, see note 10.
23. Full title: Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction. Also known as the Ottawa Convention.
24. EU Council Joint Action in support of the Biological and Toxin Weapons Convention, 2006/184/CFSP of 27 February 2006, at <[eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l\\_065/l\\_06520060307en00510055.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_065/l_06520060307en00510055.pdf)>.
25. Trevor Findlay and Angela Woodward, 2004, *Enhancing BWC Implementation: A Modular Approach*, Weapons of Mass Destruction Commission paper no. 23, December, at <[www.wmdcommission.org](http://www.wmdcommission.org)>.

## Confidence-building needs transparency: an analysis of the BTWC's confidence-building measures

Iris HUNGER and Nicolas ISLA

Biological arms control is currently in one of its deepest crises since the Biological and Toxin Weapons Convention (BTWC) was signed in 1972.<sup>1</sup> Efforts to improve the BTWC by adding verification measures ended unsuccessfully in mid-2001, and states were unable to agree on reopening multilateral negotiations aimed at strengthening the BTWC at the Fifth Review Conference of 2001 and 2002.

There is, however, a recognized need to strengthen the BTWC. The “dual use” character of many of the activities in biotechnology means that transparency is key to the strength of the BTWC. The BTWC confidence-building measures (CBMs)—the only existing transparency enhancement mechanism—are of limited effectiveness. But since there is little prospect of agreement over stronger transparency enhancement mechanisms for biological arms control in the near future, we must move ahead on improving the existing mechanism as much as possible.

The virtues of transparency for the effectiveness of multilateral control regimes have been touted repeatedly and consistently. To be able to regulate the behaviour of states and assess regime effectiveness, actors must have information about the activities they want to regulate. Transparency about and the willingness to explain the biological activities performed in a given country are of utmost importance in increasing confidence in their peaceful nature and preventing suspicion, hostility and aggression among states.

Transparency refers to the availability of relevant information and—in a more extensive understanding—to the openness of a system (a government or a company for instance) to external observers. Transparency serves three purposes: it deters violations of norms, it reassures actors that others are not misusing technologies and goods, and it may also reveal problems with the existing regime that actors have not recognized before.<sup>2</sup> Transparency is fostered by consistent, timely, accurate and comprehensive reporting of activities by leader states; by removing disincentives and obstacles to reporting, and rewarding reporting; and by collecting, processing, analysing and disseminating the relevant information that is provided.<sup>3</sup>

Yet most security regimes are not transparent: they fail to produce accurate and timely information, making it difficult both to assess actors' compliance and regime effectiveness, and to decide on the evolution of a regime and sanctioning violations.<sup>4</sup> The biological arms control regime is no exception. Transparency enhancement measures are limited. The most important are the confidence-building measures in the framework of the BTWC. So far, these have been of limited effectiveness, mainly because of a lack of participation and follow-up: states have not yet been willing to substantially

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improve the level of participation in and quality of the CBMs. Nonetheless, the CBMs do have the potential to strengthen the BTWC.

This paper starts with a short history of the BTWC CBMs and then looks at their current state and possibilities for improvement in four areas:

- consistency and timeliness of reporting;
- relevance and comprehensiveness of reported data;
- collection, processing, analysis and dissemination of reported data; and
- removing disincentives and obstacles to reporting, and rewarding reporting.

### *History of the BTWC confidence-building measures*

The first CBMs for the BTWC took the form of data exchange measures and were agreed upon during the Second Review Conference in 1986 “in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions”.<sup>5</sup> They were extended at the Third Review Conference in 1991. They were not discussed in detail at the Fourth Review Conference in 1996 because efforts were instead focused on the work of the Ad Hoc Group, which, among other things, was considering a legally binding system for states’ declarations of relevant activities. In 2001, at the Fifth Review Conference, states made a number of proposals to improve and broaden the CBMs. However, as the conference was unable to agree on a Final Declaration, these proposals did not translate into action. Therefore, the topics that were agreed in 1991 are still valid today.<sup>6</sup>

- Confidence-building measure A: Part 1: Exchange of data on research centres and laboratories; Part 2: Exchange of information on national biological defence research and development programmes.
- Confidence-building measure B: Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins.
- Confidence-building measure C: Encouragement of publication of results and promotion of use of knowledge.
- Confidence-building measure D: Active promotion of contacts.
- Confidence-building measure E: Declaration of legislation, regulations and other measures.
- Confidence-building measure F: Declaration of past activities in offensive and/or defensive biological research and development programmes.
- Confidence-building measure G: Declaration of vaccine production facilities.

Each year, every BTWC member state must submit a CBM return to the United Nations (UN) Department for Disarmament Affairs (DDA) by 15 April, covering the previous calendar year. If a state has nothing, or nothing new, to report, it can use Form 0, indicating with just a tick whether there is no, or no new, information to declare on the different CBM topics. The UN collects and copies the CBM returns and distributes them to states parties. The United Nations does not, however, have a “collection mandate”; it cannot ask states for their CBM returns.

A limited amount of information from the CBMs is made public in the reports that the Department for Disarmament Affairs prepares for the BTWC review conferences. These reports list, in a yes/no

format, which CBM forms states have submitted, but they do not contain declared data, much less provide analysis or evaluation of those data.<sup>7</sup> In the late 1980s the Stockholm International Peace Research Institute (SIPRI) was granted access to the CBM submissions for its study on the first three rounds of data exchanges.<sup>8</sup> Some states have made their CBM submissions public. Australia posted its CBM returns on the internet in 2002, 2004 and 2005, the United Kingdom did the same in 2003 and 2004, the United States in 2004.<sup>9</sup> Other state representatives have claimed that the CBMs are “for government use only”. However, when adopting the CBMs, states did not specify that access to data would be restricted. Moreover, confidentiality obviously runs counter to the goal of transparency.

### *Consistency and timeliness of reporting*

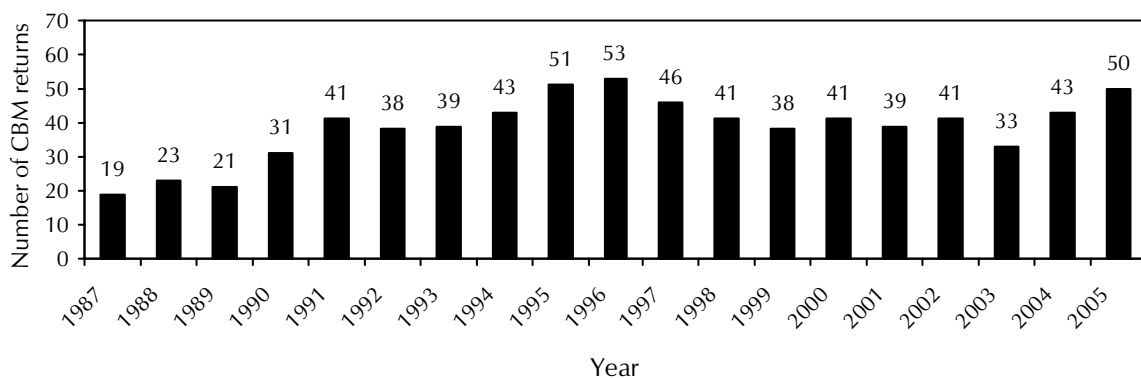
States party to the BTWC are politically bound to hand in a CBM submission every year. Not doing this brings countries into technical non-compliance with the BTWC. Nonetheless, a large number of BTWC states parties fall into this category, seriously undermining the biological-weapon control regime. Only a few states have provided information on a regular basis as required. Only eight countries submitted CBM returns in every single year between 1987 and 2005: Canada, Finland, Germany, the Netherlands, Norway, Russia, Spain and the United States.

Over the years, usually under one-third of states parties has submitted information in any one year. The number of CBM submissions per year is shown in Figure 1. Participation peaked in 1996 with 53 CBM submissions. This was the year of the Fourth Review Conference, when states expected a verification instrument for the BTWC in the near future. In the five-year period 2001–2005, 26 countries provided information annually.<sup>10</sup>

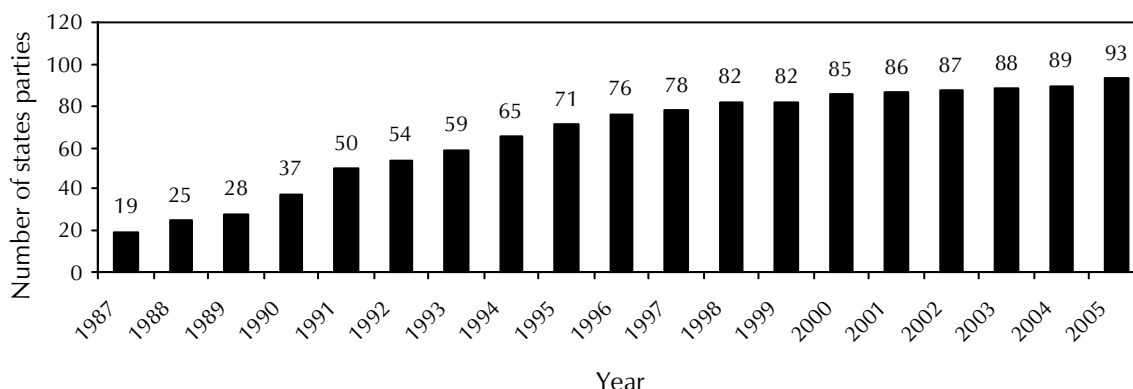
Since 1987, 93 states parties have taken part in the process at least once (Figure 2). This means that more than 40% of BTWC member states have never submitted any information (up to 2005). Among those that have never participated are Algeria, Bosnia and Herzegovina, Ethiopia, Ghana, Indonesia, Kenya, Lebanon, Malaysia, Nigeria, Oman, Pakistan, Singapore, Sudan, Uruguay, Venezuela, Viet Nam, Yemen and Zimbabwe.

*More than 40% of BTWC member states have never submitted any information.*

**Figure 1. Number of CBM returns by BTWC states parties, 1987–2005**





**Figure 2. Number of states parties that have submitted CBMs at least once**

Eastern European countries and Western states have taken part much more frequently than members of the Non-aligned Movement (NAM). Over the past 10 years, almost all Western states and four-fifths of Eastern European countries participated at least occasionally, compared with only one-third of NAM states.

Even politically important countries and countries very supportive of the BTWC have not always participated regularly. To name just a few examples: India participated in 1997 only; Iran only provided CBMs in 1998, 1999 and 2002; Sweden failed to submit CBMs in 2002 and 2003; the United Kingdom missed providing a CBM in 2001. Irregular participation not only undermines the regime, it creates problems in interpreting those data that have been declared. If a country participated in 1997 for the last time (as for instance India did), should one assume that the 1997 data are still valid in 2005? Besides overall low participation, the declarations that are submitted are frequently late. The most extreme case is Japan, which handed in its CBMs for 1994 and 1996 in 1998.

#### POSSIBILITIES FOR IMPROVEMENT

In order to improve the consistency and timeliness of reporting, a number of steps should be taken. First, more countries have to be convinced to take part more frequently and to respect the deadline. States should be reminded of the approaching submission date of 15 April each year; the UN should be accorded a collection mandate. Annual lists of participating states would also help to remind states of their reporting duties. A low-level follow-up process is recommended to improve consistent and timely reporting, such as asking for missing CBMs at a certain point after the deadline and offering assistance. Technical assistance should be provided to states that struggle with collecting the declarable data and completing and submitting the forms. Efforts should focus on “particularly important states”. These are the depositary states, because they are expected to serve as role models; countries that have had biological-weapon programmes or that have been officially accused of biological efforts, because such efforts could have given rise to dual-use knowledge and materials of concern to BTWC member states; and global and regional leaders in biotechnological capabilities.<sup>11</sup>

## Relevance and comprehensiveness of reported data

### RELEVANCE OF REPORTED DATA

The relevance of the data asked for is not ideal. But what *is* relevant data? When discussing biological weapons (BW) and the technologies necessary for their development, the term “dual use” frequently appears. Dual use is not exclusive to biotechnology. But the degree of dual use is particularly high in the biological sciences. Dual use means that equipment, agents, technologies and knowledge used in producing a biotechnology product such as medicine or food can also be used to produce BW. At times, only a very thin line separates legitimate from illicit activities.

But while it is true that many activities in the biological field have a strong dual-use character, qualifications have to be made. There are certain activities that have a very limited use for peaceful purposes, and even activities that cannot be justified as having any peaceful intention at all. Clearly offensive activities are work on BW munitions and delivery systems for such munitions. Such work can never be justified as peaceful. It is prohibited without any qualification by Article I of the BTWC.

Of extremely limited non-offensive use is work aimed at enhancing the characteristics of agents to make them more suitable as weapons, such as: enhancing infectivity and pathogenicity of agents; improving transmissibility; altering agents to evade current detection methods; enhancing resistance to current therapeutics such as antibiotics or resistance to host immunological defences; improving the ability of an agent to remain viable and virulent during production, weaponization, storage, transport and during and after release into the environment; and facilitating the dissemination of agents as a fine particle aerosol, or by contamination of food or water sources.<sup>12</sup> Of extremely limited non-offensive use are also the mass production of biological agents that have no commercial application and open-air field testing of live biological agents. Such activities at the hostile end of the spectrum are carried out most often in biodefence programmes. In the last decade, many states have enlarged existing or created new biodefence programmes. Activities undertaken in these programmes quite often involve creating offensive capabilities in the name of biodefence. Therefore, of the current CBM topics, the most relevant in terms of biological arms control are data on national biodefence programmes, because they are likely places of dual-use activity close to the hostile end of the dual-use spectrum.

*In the last decade, many states have enlarged existing or created new biodefence programmes.*

In addition, information on vaccine production is relevant, because it indicates large production capacities and the related know-how, which are also necessary for a large-scale BW programme. Data on biosafety level 4 (or BL4) laboratories are also of relevance, because it is likely that particularly dangerous activities, such as making biological agents more pathogenic or increasing their transmissibility, are carried out under high biological containment to prevent damage to the environment or to keep the activities secret. These three topics—biodefence programmes, large vaccine production capacities and maximum biological containment—were important triggers for declarations by states parties in the draft verification protocol to the BTWC.<sup>13</sup> More detail on data currently declared under these three topics is provided below.

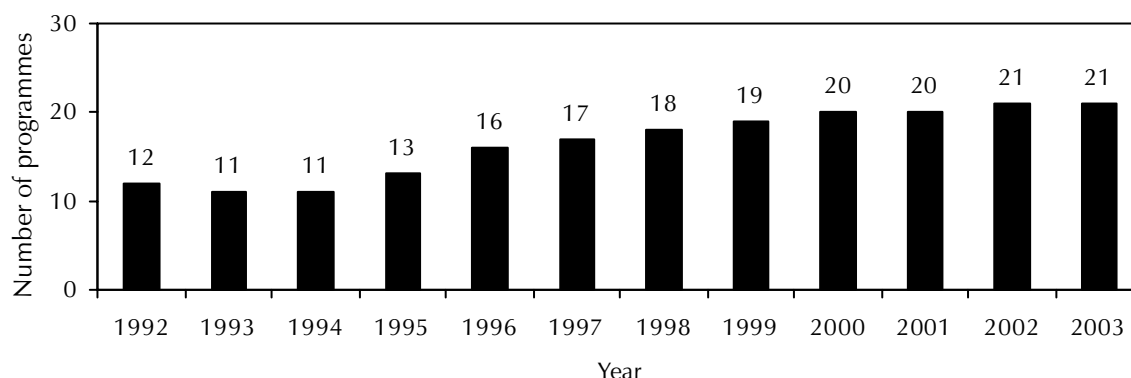
CBM Form A2 asks for information on “national biological defence research and development programmes”. In addition to an overview of the programme (CBM Form A2ii), states also have to declare detailed information on facilities that have “a substantial proportion of ... resources devoted to the national biological defence research and development programme” (CBM Form A2iii). During the period 1992 (when CBM A2 came into existence) to 2003, 23 states declared biodefence programmes:

Australia, Belarus, Belgium, Canada, China, Czechoslovakia, Finland, France, Germany, India, Italy, Japan, the Netherlands, Norway, Poland, the Russian Federation, South Africa, Spain, Sweden, Switzerland, Ukraine, the United Kingdom and the United States.<sup>14</sup> The number of biodefence programmes declared per year is shown in Figure 3. There is a visible trend toward the establishment of new biodefence programmes. Australia, Belarus, Belgium, Italy, Japan, Poland, South Africa, Spain, Switzerland and Ukraine declared initiating a biodefence programme during the period under review. The Czech Republic and Slovakia declared from 1994 onward that they do not have a biodefence programme. Ukraine did the same from 1997 onward.

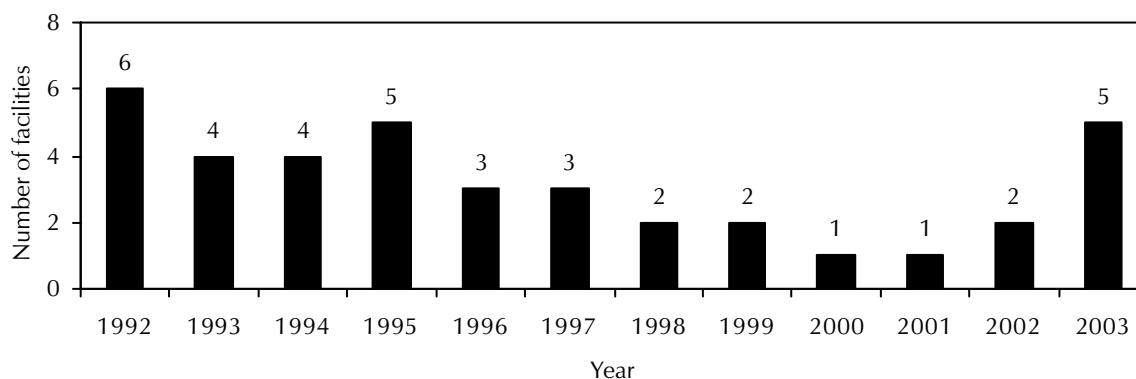
CBM Form A1 asks for information on “research centres and laboratories that meet very high national or international safety standards” or specialize in “permitted biological activities directly related to the Convention”. A huge number of facilities were declared: most were neither funded by ministries of defence nor equipped with BL4 containment. During the 10-year period 1994 to 2003, 22 states declared 57 BL4 facilities: 43 of these were declared to be in existence in 1994, 36 in 1998, and 32 in 2003. Four of the 57 declared facilities were partly, one was fully, funded by ministries of defence.<sup>15</sup>

Information on facilities “producing vaccines licensed by the State party for the protection of humans” should be provided on CBM Form G. Almost 300 vaccine production facilities have been declared during the period 1992 (when CBM G was adopted) to 2003. Not all of them are producing vaccines for use on humans; a number of states also declared animal vaccine production facilities. Of the many facilities producing vaccines for humans, most produce vaccines against “classic” diseases

**Figure 3. Number of biodefence programmes declared per year**



**Figure 4. Number of smallpox vaccine production facilities declared active per year**



such as diphtheria, tetanus, pertussis, measles, mumps and rubella. Nine states declared a total of 11 smallpox vaccine production facilities between 1992 and 2003: Australia, Canada, Germany, Japan, the Netherlands, Romania, the Russian Federation, Spain and the United States. Five smallpox vaccine production facilities were declared active in 2003: one each in Canada, Germany, Japan, the Netherlands and the Russian Federation. The number of smallpox vaccine production facilities declared active during the period 1992–2003 is shown in Figure 4. Four states declared a total of six plague vaccine production facilities over the years: Australia, China, the Russian Federation and the United States. In 2003, four plague vaccine production facilities were declared active: one each in Australia and China, and two in the Russian Federation.

#### COMPREHENSIVENESS OF REPORTED DATA

There are almost no analyses of the comprehensiveness of data declared in the CBMs.<sup>16</sup> From the little that is known it is clear that data submitted have not always been comprehensive or complete. Sometimes this is due to the forms themselves, which contain some ambiguous questions. Form A2iii, for instance, asks for the number of staff working at a biodefence facility, and also for the number of contractor staff working there. It is unclear, and states have handled this differently, whether the first number of staff should include or exclude the number of contractor staff. Often, it is difficult to know whether older information provided by states is superseded by newer information or whether newer information is simply in addition to older information. And then there are the cases of incomplete information. Spain, for instance, did not provide information on funding for its biodefence facilities as required in CBM Form A2iii. Italy lists a number of vaccine production facilities but does not mention the diseases covered, as required in CBM Form G.

#### POSSIBILITIES FOR IMPROVEMENT

In order to improve the relevance and comprehensiveness of reported data, two issues have to be addressed. First, the CBM topics have to be reviewed. It is obvious that some relevant topics are not covered, such as the production of animal vaccines, plant inoculants, aerosol studies and military vaccination programmes. It is also obvious that some of the existing CBM topics are of limited relevance, such as the requirements to report on efforts to actively promote contacts between scientists, on efforts to encourage the publication of results of biological research, and background information on outbreaks of reportable infectious diseases. Superfluous topics should be removed or amended, and relevant new topics should be added. A number of proposals in this regard were made during the Fifth Review Conference of the BTWC.<sup>17</sup>

Second, the format of the CBM forms has to be reviewed. Not all relevant information is asked for in detail on each topic. The declaration on past offensive programmes, for instance, would benefit from more detailed questions on the categories of activities undertaken in the BW programme and on agents and facilities. In the declaration on national implementation (Form E) a question could be added on bioterrorism. When reviewing the forms, ambiguous questions, such as the questions on staff numbers in the biodefence facility declaration, should be amended and imprecise reporting requirements should be more focused, such as limiting the publication lists to works of particular relevance. In reviewing the CBM forms it could be useful to take a look at the work that was done on declaration formats by the Ad Hoc Group.<sup>18</sup>

### *Collection, processing, analysis and dissemination of reported data*

Currently the CBMs are sent by states to the United Nations Department for Disarmament Affairs in New York. The information is then processed—in so far as it is copied. It is then assembled into a compendium and disseminated back to states. The CBMs are not translated. They are not analysed, except for a list of participating states that the UN prepares every five years for the review conferences. DDA archives the CBMs in its library.

In order to improve the organizational procedures for the CBMs, a number of steps need to be taken. States should have a choice over submitting and receiving the CBMs either electronically or on paper. An electronic database would help to ease access to the completed CBMs; if this were also available to non-governmental experts, it would greatly increase the possibilities for analysis and assessment of the CBMs. In addition, states should be encouraged to publish their CBMs on the internet.

The UN should have an information collection mandate, with the right to ask for missing returns. Translating the CBMs should be considered. Whether there can be agreement on translating into all UN languages is questionable for financial reasons, and translation only into English might be difficult for political reasons. An interim measure would be to encourage states to submit their CBMs in more than one UN language, or to make their national translations of other countries' CBMs available.

The most demanding organizational reform would be to start analysing the submitted information. This could take different forms. Low-level analysis would consist of more frequent lists of participation and yes/no lists for each CBM topic, as already done every five years for the review conferences. Medium-level analysis would comprise summaries of the declared data, such as names and locations of BL4 facilities or funding levels and staff numbers of biodefence programmes. High-level analysis would include comparison of CBM information with other information sources to assess accuracy and completeness. This could involve clarification and consultation procedures and voluntary visits to verify declared data.

### *Removing disincentives and obstacles to reporting, and rewarding reporting*

There must be disincentives and obstacles to reporting, otherwise more states would take part. A first step in the direction of removing disincentives and obstacles was the introduction of Form 0 in 1991. However, as mentioned above, the forms need another revision process to make them as unambiguous and easy to complete as possible. Using tick-box formats for the majority of questions is one option. As mentioned above, looking at the work done by the Ad Hoc Group on declaration formats could be useful. To remove more complex obstacles, assistance should be provided to states in need of it. As a first step, Canada has prepared a detailed guide on the CBMs, giving advice on how to collect information, complete the forms and submit the CBM declarations to the UN.<sup>19</sup> International and regional workshops on the CBMs or an e-mail helpline would be even more useful.

So far, there is no incentive to report; there is no mechanism for rewarding reporting, nor is there any mechanism to sanction non-reporting. A very low-level incentive could be an annual list and statistics that indicate which states have participated in that year, for how many years each state has participated without interruption, and which states have never participated. Most important for transparency enhancement and confidence-building, however, is to explain again and again that consistent and timely submission of high-quality CBM declarations are crucial for a strong biological arms control regime, and to insist that states fulfil their obligations in this regard.

## Conclusion

As the negotiations on a verification protocol for the BTWC, which would have included a legally binding declaration system, failed, the CBMs remain the only agreed permanent, multilateral transparency measure for the years to come. It is therefore important to make the best use of this mechanism.

The next milestone in biological arms control is the Sixth Review Conference of the BTWC at the end of 2006. While states party to the BTWC are unlikely to resume formal negotiations on verification measures, they should use this opportunity to take steps to increase transparency in biological activities worldwide. The commitment of member states to increasing transparency in areas relevant to biological arms control is crucial, at the Sixth Review Conference and beyond.

## Notes

1. Full title: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, opened for signature 10 April 1972, entry into force 26 March 1975, at <[www.unog.ch/bwc](http://www.unog.ch/bwc)>.
2. Ann Florini, 1998, "A New Role for Transparency", in Nancy Gallagher (ed.), *Arms Control. New Approaches to Theory and Policy*, London and Portland OR, Frank Cass, pp. 51–72.
3. Ronald Mitchell, 1998, "Sources of Transparency: Information Systems in International Regimes", *International Studies Quarterly*, vol. 42, no. 1, pp. 109–130.
4. Ibid.
5. Final Declaration, Second Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, 1986, UN document BWC/CONF.II/13/II, p. 6, at <[www.opbw.org/rev\\_cons/2rc/docs/final\\_dec/2RC\\_final\\_dec\\_E.pdf](http://www.opbw.org/rev_cons/2rc/docs/final_dec/2RC_final_dec_E.pdf)>.
6. For the current CBM forms see UN document BWC/CONF.III/23, Part II, Annex, at <[www.opbw.org/rev\\_cons/3rc/docs/conf/BWC\\_Conf.III\\_23\\_PartII\\_Annex\\_E.pdf](http://www.opbw.org/rev_cons/3rc/docs/conf/BWC_Conf.III_23_PartII_Annex_E.pdf)>. The forms are accessible individually online at <[www.opbw.org](http://www.opbw.org)>.
7. These documents from the Fifth Review Conference are BWC/CONF.V/2, BWC/CONF.V/2/Corr.1, BWC/CONF.V/2/Corr.2, BWC/CONF.V/2/Corr.3, BWC/CONF.V/2/Add.1 and BWC/CONF.V/2/Add.1/Corr.1 and can be found at <[www.opbw.org/rev\\_cons/5rc/5rc\\_orig.htm](http://www.opbw.org/rev_cons/5rc/5rc_orig.htm)> and <[www.opbw.org/rev\\_cons/5rc/5rc\\_res.htm](http://www.opbw.org/rev_cons/5rc/5rc_res.htm)>.
8. Erhard Geissler (ed.), 1990, *Strengthening the Biological Weapons Convention by Confidence-Building Measures*, SIPRI Chemical & Biological Warfare Studies no. 10, New York, Oxford University Press, p. ix.
9. See <[www.opbw.org](http://www.opbw.org)>.
10. These were Argentina, Australia, Belarus, Bulgaria, Canada, China, Cuba, Czech Republic, Finland, Germany, Italy, Japan, Lithuania, the Netherlands, New Zealand, Norway, Poland, the Russian Federation, Slovakia, South Korea, Spain, Switzerland, Turkey, Ukraine, the United States and Uzbekistan.
11. Detailed information on the concept of "particularly important states" can be found in Iris Hunger, 2005, *Confidence Building Needs Transparency. A Summary of Data Submitted under the Bioweapons Convention's Confidence Building Measures 1987–2003*, The Sunshine Project, September, at <[www.biological-arms-control.org/download/hunger\\_CBM.pdf](http://www.biological-arms-control.org/download/hunger_CBM.pdf)>. The list of these "particularly important states" is as follows: Australia, Brazil, Canada, China, Cuba, Egypt, France, Germany, India, Iran, Iraq, Israel, Italy, Japan, Kenya, Libya, Mexico, Nigeria, North Korea, the Russian Federation, Singapore, South Africa, Sudan, Sweden, Syria, the United Kingdom and the United States.
12. Raymond A. Zilinskas and Jonathan B. Tucker, 2002, *Limiting the Contribution of the Scientific Literature to the BW Threat*, Research Story of the Week, Center for Nonproliferation Studies, 16 December, at <[cns.miis.edu/pubs/week/021216a.htm](http://cns.miis.edu/pubs/week/021216a.htm)>.
13. Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Procedural Report, Twenty-Second Session, Geneva, UN document BWC/AD HOC GROUP/55-1, 1 March 2001, pp. 28–38, at <[www.opbw.org/ahg/docs/22nd%20session/22nd%20session%20part%201.pdf](http://www.opbw.org/ahg/docs/22nd%20session/22nd%20session%20part%201.pdf)>.
14. A more detailed account of the declared data can be found in Hunger, 2005, op. cit., pp. 12–15.
15. A more detailed account of the declared data can be found in Hunger, 2005, op. cit., pp. 16–17.

16. One exception is Nicolas Isla, 2006, *Transparency on Past Offensive Biological Programmes. An Analysis of Confidence-Building Measure Form F: 1992–2003*, Occasional Paper no. 1, Hamburg Centre for Biological Arms Control.
17. Annex to the Draft Report of the Committee of the Whole, Fifth Review Conference, UN document BWC/CONF.V/COW/CRP.1, 30 November 2001, pp. 37–50.
18. Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction: Procedural Report, Twenty-Second Session, UN document BWC/AD HOC GROUP/55-2, 1 March 2001, pp. 276–338 and 343–344, at <[www.opbw.org/ahg/docs/22nd%20session/22nd%20session%20part%202.pdf](http://www.opbw.org/ahg/docs/22nd%20session/22nd%20session%20part%202.pdf)>.
19. Canada Department of Foreign Affairs and International Trade, *The Biological and Toxin Weapons Convention Confidence Building Measures: A Guide to Their Completion*, at <[www.opbw.org/cbms/Guide\\_files/frame.htm](http://www.opbw.org/cbms/Guide_files/frame.htm)>.

# Achieving the outcomes of the Sixth Review Conference

Daniel FEAKES and Graham S. PEARSON

In the run-up to the Sixth Review Conference of the Biological and Toxin Weapons Convention (BTWC), to be held in November–December 2006, a number of issues appear to be attracting wide support among the states parties.<sup>1</sup> These include achieving universal adherence to the convention; improving national implementation of the convention by all states parties; enhancing both the quality of and participation in the annual confidence-building measure returns; strengthening the United Nations Secretary-General's mechanisms for investigating the alleged use of biological or toxin weapons; and finally a further programme of annual meetings of states parties during the intersessional period leading to the anticipated Seventh Review Conference in 2011.

However, agreement on such issues in the Final Declaration, difficult enough in itself, is but the first step. This article examines how these possible outcomes of the Review Conference could be implemented effectively and efficiently to yield concrete results.

## *Universal adherence*

At successive review conferences the states parties have called upon states that have not yet ratified or acceded to the convention to do so without delay.<sup>2</sup> Similar exhortations were also made in resolution 60/96, adopted by the General Assembly without a vote on 8 December 2005.<sup>3</sup> There is clearly widespread and persistent recognition by all states parties of the importance of achieving universal adherence. However, the rate at which states have become party to the convention has been very slow during recent years, as shown in Table 1.

This slow rate is all the more pronounced when a comparison is made with the Chemical Weapons Convention (CWC), which entered into force on 29 April 1997.<sup>4</sup> At the First Review Conference of the CWC in April–May 2003, states parties recommended the development and implementation of “a plan of action to further encourage, in a systematic and coordinated manner, adherence to the Convention and to assist States ready to join the Convention in their national preparations to implement it”.<sup>5</sup> The action plan was duly adopted by the Executive Council on 24 October 2003.<sup>6</sup> Table 2 shows the success of the CWC's sustained efforts to universalize adherence to the convention.

In March 2006, the number of states party to the CWC totalled 178, over 20 more than the number of states party to the BTWC. The forthcoming Sixth Review Conference therefore has an

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**Table 1. Participation in the BTWC, 2001–2005**

Date	Number of states parties	Number of signatory states
October 2001	144	18
October 2002	146	17
November 2003	151	16
December 2004	153	16
June 2005	155	16

Sources: List of States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, UN documents BWC/CONFV/INF.1, 26 October 2001; BWC/CONFV/INF.4, 25 October 2002; BWC/MSP/2003/INF.2, 14 November 2003; BWC/MSP/2004/INF.2, 3 December 2004; and BWC/MSP/2005/MX/INF.5, 21 June 2005.

**Table 2. Participation in the Chemical Weapons Convention, 1997–2006**

Date	Number of states parties	Number of states parties for which entry into force was pending	Signatory states not party	Non-signatory states not party
April 1997	87	0	78	28
April 1998	107	1	60	25
April 1999	121	0	48	24
April 2000	132	3	37	21
April 2001	143	0	31	19
April 2002	143	0	31	19
May 2003	151	2	25	16
October 2003	154	3	22	15
June 2004	164	0	18	12
February 2005	167	0	16	11
March 2006	178	0	8	8

Sources: Data for 1997–2002: OPCW Technical Secretariat, *Background Paper on Universal Adherence to the Chemical Weapons Convention*, document RC-1/S/5, 25 April 2003; data for 2002–2005: Scott Spence, 2005, *Achieving Effective Action on Universality and National Implementation: The CWC Experience*, Review Conference Paper no. 13, University of Bradford; data for 2006: Graham S. Pearson and Nicholas A. Sims, 2006, *Successful Outcomes for the Sixth Review Conference*, Review Conference Paper no. 16, University of Bradford.

opportunity to mount an initiative to encourage all those states that have acceded to the CWC to also accede to the BTWC. Rather than just adopting an exhortation, the conference should actually agree to do something. This might be called an action plan, but there may be advantage in adopting different terminology, with a view to reaching 180 states parties no later than the Seventh Review Conference. The Review Conference must also agree on *how* action is to be taken and how progress is to be reported to states parties. A progress report on universality would be an appropriate agenda item for future annual meetings of states parties; these meetings could also make decisions on further action, should it be necessary.

States not party to the BTWC that are yet party to the CWC must be approached and provided with assistance to enable accession. These tasks could be carried out by a small interim secretariat, or by agreement that the Bureau of the Sixth Review Conference and its support staff should do this during the intersessional period. Or, along the lines of measures adopted by CTBT states at their meetings on the entry into force of the CTBT, the Sixth Review Conference could agree to appoint a Coordinating State and Regional Coordinators tasked with raising the profile of the BTWC, particularly

within regional organizations. Since 2003, CTBT signatory states have also agreed to designate a Special Representative, whose job it is to “provide States Signatories and non-signatories with information on the significance of the Treaty in the wider context of nuclear arms control, disarmament and non-proliferation”.<sup>7</sup> These activities have meant that despite the CTBT not having entered into force (largely because of the requirement that certain states must ratify it before it can enter into force), the treaty has gained 135 ratifications since 1996—only 20 fewer than the BTWC—and states are still ratifying (9 in 2006 so far). Whatever institutional mechanism states parties decide upon, it has been demonstrated by the CWC and the CTBT that achieving universality requires a means by which coherent, sustained, high-level pressure can be brought to bear on states not party over a long time frame.

Note should also be taken of the European Union’s Joint Action in support of the BTWC, which provides almost EUR 510,000 for “the promotion of the universality” of the convention.<sup>8</sup> This is to be achieved through carrying out “regional and sub-regional workshops and seminars” during 2006 and 2007. Preparatory meetings have already been held and the first regional seminar took place in Nairobi on 21–22 June. Four further seminars are planned. Following the precedent set by the EU’s support for the Organisation for the Prohibition of Chemical Weapons (a first Joint Action in 2004 and a second in 2005), it is likely that the EU will renew the BTWC Joint Action when the current one expires. A group of like-minded BTWC states parties could conceivably adopt a similar approach to providing the resources necessary to promote universality.

*Achieving universality requires a means by which coherent, sustained, high-level pressure can be brought to bear on states.*

### **Improving national implementation**

At successive review conferences the BTWC states parties have reaffirmed their commitment to take any necessary measures “to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere” (Article IV).<sup>9</sup> However, the extent to which states parties have actually enacted such measures is far from complete.<sup>10</sup>

The CWC has a similar requirement and compliance had been equally patchy, so the states parties agreed at the CWC’s First Review Conference to develop, “a plan of action ... with the objective of fostering the full and effective implementation of the Convention by all States Parties”.<sup>11</sup> This action plan was agreed at the Conference of States Parties in 2003.<sup>12</sup>

Table 3 shows the results of the efforts by the Organisation for the Prohibition of Chemical Weapons (OPCW) and its member states: even since the action plan, and although almost two-thirds of states parties to the CWC had submitted information on their national implementation to the OPCW, only about one-third had adopted legislation that covered the areas key to the enforcement of the CWC by 2005. In light of this, the Tenth Session of the CWC Conference of the States Parties adopted a decision to follow up the action plan.<sup>13</sup> The decision focuses on those states parties that lack the very basics of national implementation—a National Authority and implementing legislation. The decision gives such states parties a limited time in which to redress such deficiencies and, if remedial action is not forthcoming, the Executive Council can invoke the compliance assurance mechanisms of the CWC.

The situation for the BTWC is much less certain; there is no basis on which to conclude that it is any better, and it is likely to be worse. Nonetheless, there is widespread recognition of the importance of all states parties adopting national legislation. The adoption of Security Council resolution 1540

**Table 3. National implementation measures submitted to the OPCW, 1997–2005**

Date	Number of states parties	Number (and percentage) of state parties that have submitted national implementation measures	Legislation covers area key to the enforcement of the CWC
May 1997	87	0 (0%)	Not available
December 1997	103	24 (23%)	Not available
November 1998	120	40 (33%)	Not available
July 1999	125	43 (34%)	Not available
May 2000	133	48 (36%)	Not available
May 2001	143	53 (38%)	Not available
October 2002	145	70 (48%)	39 (27%)
October 2003	154	94 (61%)	51 (33%)
November 2004	166	96 (58%)	52 (31%)
November 2005	174	106 (61%)	59 (34%)

Sources: Scott Spence, 2005, *Achieving Effective Action on Universality and National Implementation: The CWC Experience*, Review Conference Paper no. 13, University of Bradford; Santiago Oñate, Ralf Trapp and Lisa Tabassi, 2005, "Decision on the Follow-up to the OPCW Action Plan on Article VII: Ensuring the Effective Implementation of the Chemical Weapons Convention", *The CBW Conventions Bulletin*, nos. 69 and 70, September–December, pp. 5–10.

(2004) on 28 April 2004 has provided additional impetus for all states—not solely the states party to the BTWC—to adopt national legislation, as it decides that:

all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or *biological* weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them[.] [Emphasis added.]<sup>14</sup>

However, it needs to be noted that resolution 1540 does not address the element in Article IV requiring each state party to take necessary measures to "prevent". By definition this means that national measures must do more than merely prohibit forbidden activities, therefore the Sixth Review Conference needs to address both prohibition and prevention. The prevention requirement is valuable in that it sets a high standard for national implementation measures for the BTWC, making it a useful test of their effectiveness. If a state party's legislative and other prohibitions are not strong enough to *prevent* those activities involving biological weapons defined in Article I of the convention, that state party accordingly risks falling short of full compliance. It would be desirable for the Review Conference's Final Declaration to express a common understanding of the significance of the prevention criterion and to recommend that states parties take action by reviewing the effectiveness of their national implementation measures in meeting the prevention criterion.

There is a need to go further than simply adopting an exhortation along the lines of those of previous review conferences. It is appreciated that the action plan followed by the OPCW has called on significant resources, which currently are not available to the BTWC, but action is required to adopt national legislation in order to counter the continuing threat posed by biological and toxin weapons, whether by states or by non-state actors. As recognized by resolution 1540, states may require assistance with implementation. The 2006 report of the 1540 Committee recommended that the Security Council "substantially widen and intensify regional and subregional outreach activities" and invited "both States making offers of assistance and States requesting assistance to take a proactive approach on a bilateral basis, including making use of

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with implementation. The 2006 report of the 1540 Committee recommended that the Security Council "substantially widen and intensify regional and subregional outreach activities" and invited "both States making offers of assistance and States requesting assistance to take a proactive approach on a bilateral basis, including making use of

offers by international organizations, in order to contribute to capacity-building".<sup>15</sup> Consequently, at the Sixth Review Conference, a commitment should be sought from states parties that are able to provide such assistance.

Some states parties already offer assistance. The UK Foreign and Commonwealth Office is funding the Verification Research, Training and Information Centre's project on national implementation measures, Australia and Indonesia hosted seminars in 2005 and 2006 respectively for the Asia-Pacific region and the United States has been providing bilateral assistance to states parties and has recently provided US\$ 500,000 to Interpol's bio-criminalization project. The EU Council Joint Action of 2006, mentioned above, also contributed to national implementation measures by allocating EUR 277,000 to an assistance project. Under the Joint Action, the EU will support assistance visits to BTWC states parties to address the drafting of national legislation to implement the convention. In addition, the EU has adopted a Joint Action specifically in support of resolution 1540, under which the EU will support awareness-raising seminars in three regions (Africa, Asia-Pacific and Latin America and the Caribbean), possibly leading to the provision of technical assistance.<sup>16</sup> The first such seminar took place in Beijing on 12–13 July 2006.

Although BTWC states parties may consider adopting an action plan, it would be wise to use different terminology, as the resources available to the OPCW simply do not exist for the BTWC. It is suggested that a timeline, with a target of two-thirds of BTWC states parties having adopted national implementation legislation by the time of the Seventh Review Conference, would be an effective and desirable outcome. This would be greatly aided by one or more states parties undertaking to continue providing resources to facilitate the adoption of legislation as well as to monitor and report annually to states parties on progress toward this target. A number of states parties and international organizations are now involved in national implementation of the BTWC and it will be essential to ensure that their efforts are coordinated. Future annual meetings of states parties could offer a convenient venue for such coordination to be planned and for progress to be reported. Where appropriate, such meetings could also agree any necessary additional action.

### *Enhancing the confidence-building measures*

BTWC states parties agreed at the Second Review Conference in 1986 to submit information annually under confidence-building measures (CBMs). The CBMs were reviewed and extended at the Third Review Conference in 1991 "in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions, and in order to improve international cooperation in the field of peaceful bacteriological (biological) activities".<sup>17</sup> It has, however, long been evident that annual participation has been poor—typically by less than one-third of BTWC states parties.<sup>18</sup>

More attention is now being focused on CBMs. In March 2006 the European Union adopted an action plan to revitalize interest in and use of CBMs: as a starting point, it will ensure that all its member states report annually on the current nine CBM topics.<sup>19</sup> In April 2006 Canada submitted specific proposals to the Preparatory Committee for the Sixth Review Conference; and back in 2001 South Africa submitted a number of useful proposals to strengthen the CBMs to the Fifth Review Conference.<sup>20</sup> These proposals should be included in an overall review that examines: the existing CBMs and their format; proposals for new CBMs; provision for electronic submission and circulation; collation, translation and elaboration procedures; and the provision of assistance, where requested.

However, there may not be time at the Sixth Review Conference to consider the CBMs in this kind of detail. At the Second Review Conference in 1986 the states parties agreed to hold an ad hoc meeting of scientific and technical experts from states parties to finalize the modalities for the exchange

of information and data. At the Sixth Review Conference, states parties could agree to hold a meeting of states parties in 2007 to consider and decide how to improve the effectiveness of the CBM process. The meeting could be preceded by a meeting of experts, at which states parties could share best practice in compiling CBM returns and identify how the effectiveness of the CBM process might be improved.

### *Investigations of alleged use of biological or toxin weapons*

The Final Declaration of the Fourth Review Conference in 1996 mentions United Nations Security Council resolution 620 (1988), which “[e]ncourages the Secretary-General to carry out promptly investigations in response to allegations brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons”, as well as the technical guidelines and procedures contained in Annex I of United Nations document A/44/561 to guide the Secretary-General on the timely and efficient investigation of reports of the possible use of such weapons.<sup>21</sup>

Subsequently, the BTWC meetings in 2004 considered the enhancement of “international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease”. In their report they “agreed on the value of”:

- a) continuing to develop their own national capacities for response, investigation and mitigation, in cooperation with the relevant international and regional organisations, and, if in a position to do so, assisting and encouraging, with the necessary agreement, other States Parties to do the same;
- b) the Sixth Review Conference considering, inter alia, the further development of current procedures for the provision of assistance, by those in a position to do so, to States Parties in cases of alleged use of biological weapons or suspicious outbreaks of disease.<sup>22</sup>

The initial text of the draft outcome paper for this meeting stated that “consideration should be given to reviewing the Secretary General’s mechanism for investigation of cases of alleged use of biological or toxin weapons”. However, consensus could not be found on the language used so all consideration has been deferred to the Sixth Review Conference.<sup>23</sup>

States parties should recognize that it is in the interest of all to ensure that investigations are both effective and credible. Consequently, the Sixth Review Conference should consider what steps are needed to make the Secretary-General’s mechanism effective and credible. There have been significant

***States parties should recognize that it is in the interest of all to ensure that investigations are both effective and credible.***

developments in investigating the use of chemical and biological weapons since the mechanism was established in 1988: the OPCW now has its own mechanism for the investigation of alleged use of chemical weapons and the United Nations Monitoring, Verification and Inspection Commission has developed its procedures. In both cases, the importance of trained experts and accredited laboratories with validated procedures for the analysis of samples has been recognized. The Secretary-General’s mechanism has neither and is therefore seriously lagging behind the current international standard. The European Union is conscious of the need to review and update the mechanism, and has committed to volunteering expertise to the Secretary-General.<sup>24</sup>

At the Sixth Review Conference the states parties should agree to hold an annual meeting of experts and then of states parties during 2007–2010 to finalize the modalities for the timely and

effective investigation of the alleged use of biological or toxin weapons. It should be clearly understood that the meeting of states parties will have the authority to adopt the procedures agreed.

### *Further annual meetings in 2007–2010*

Key to providing impetus to the CWC action plans and continued pressure on CWC states parties have been the annual sessions of the Conference of the States Parties. They offer an opportunity to take stock, as well as to identify states parties requiring assistance and provide deadlines within which remedial action should be taken. An essential prerequisite for the most effective implementation of the proposals above is therefore a further series of annual meetings of BTWC states parties in the years prior to the Seventh Review Conference.

*An essential prerequisite for the most effective implementation of the proposals above is therefore a further series of annual meetings of BTWC states parties.*

The annual meetings of states parties prepared by separate two-week meetings of experts held in 2003, 2004 and 2005 have been effective; there has been much sharing of information about different national approaches and common understandings have been identified. However, there has been no agreement or implementation of any effective action as the states parties have deferred such consideration to the Sixth Review Conference.

The states parties at the Sixth Review Conference should agree to hold further annual meetings of states parties in 2007–2010, but this time ensure that decisions can be taken at these meetings. The meetings should consider topics arising from the Final Declaration of the Sixth Review Conference. Thus, as proposed above, the meeting of states parties in 2007 could agree and adopt the modalities for improved confidence-building measures and a subsequent meeting of states parties could agree and adopt procedures for the timely and effective investigation of alleged use of biological or toxin weapons.

The annual meetings of states parties could also consider progress reports and take action on the achievement of universal adherence to the BTWC, and the status of national implementation measures. There would be benefit in using the annual meetings to consider the progress made on two of the topics addressed in 2003–2005: the national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins; and the content, promulgation and adoption of codes of conduct for scientists.

Insofar as new topics, similar to those considered in 2003–2005, are concerned, it is suggested that these could usefully include the development of procedures for the provision of timely emergency assistance to states parties on request and procedures to facilitate international cooperation between states parties—this might include the development and adoption of a confidence-building measure to enhance the transparency of cooperation between states parties under Article X of the convention (on the use of biological agents and toxins for peaceful purposes). The experience gained in the annual series of meetings of 2003–2005 indicates that all of the above is feasible for a series of four annual meetings in 2007–2010.

### *Conclusions*

The Sixth Review Conference of the BTWC is just a starting point for much concerted action by the states parties to carry forward the agreements reached at the conference so that they are implemented effectively and efficiently to yield concrete results.

Although relevant experience from similar activities under the Chemical Weapons Convention or the Comprehensive Nuclear-Test-Ban Treaty can be usefully drawn upon, the steps taken to achieve the commitments made at the Sixth Review Conference need to be tailored to the particular circumstances of the BTWC. This article shows that, by taking certain decisions at the Sixth Review Conference, significant benefits to all states parties can be achieved: universal adherence to the convention, improved national implementation of the convention, enhanced quality of and participation in CBMs, a strengthened mechanism for investigating the alleged use of biological or toxin weapons, and a further programme of annual meetings during the intersessional period leading up to the Seventh Review Conference. The outcomes addressed in this article are all achievable at the Sixth Review Conference as they are already attracting wide support among states parties. It is evident that achieving them would provide an effective strengthening of the BTWC regime to completely prohibit the use of disease to attack humans, animals or plants.

### Notes

1. See for example, Australian Safeguards and Non-Proliferation Office, 2005, *Annual Report 2004–2005*, at <[www.asno.dfat.gov.au/annual\\_report\\_0405/ASNO\\_2005\\_AR.pdf](http://www.asno.dfat.gov.au/annual_report_0405/ASNO_2005_AR.pdf)>; *Towards the Sixth BTWC Review Conference: An Accountability Framework. Discussion Paper Prepared by Canada*, UN document BWC/CONF.VI/PC/INF.1, 10 April 2006; Council Joint Action 2006/184/CFSP of 27 February 2006 in support of the Biological and Toxin Weapons Convention, in the Framework of the EU Strategy against the Proliferation of Weapons of Mass Destruction, *Official Journal of the European Union*, L 65/51, 7 March 2006; and Council Common Position 2006/242/CFSP of 20 March 2006 relating to the 2006 Review Conference of the Biological and Toxin Weapons Convention (BTWC), *Official Journal of the European Union*, L 88/65, 25 March 2006, available at <[eur-lex.europa.eu](http://eur-lex.europa.eu)>.
2. See, for example, Final Document, Fourth Review Conference, 25 November – 6 December 1996, UN document BWC/CONF.IV/9, under “Article XIV”, at <[www.opbw.org/rev\\_cons/4rc/docs/rev\\_con\\_docs/i\\_docs/IV-09.pdf](http://www.opbw.org/rev_cons/4rc/docs/rev_con_docs/i_docs/IV-09.pdf)>.
3. UN document A/RES/60/96, 5 January 2006.
4. Full title: Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, at <[www.opcw.org](http://www.opcw.org)>.
5. Report of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (First Review Conference), document RC-1/5, 9 May 2003, paragraph 7.18, at <[www.opcw.org/docs/rc105.pdf](http://www.opcw.org/docs/rc105.pdf)>.
6. The action plan is reproduced in Annex II of Scott Spence, 2005, *Achieving Effective Action on Universality and National Implementation: The CWC Experience*, Review Conference Paper no. 13, University of Bradford, at <[www.brad.ac.uk/acad/sbtwc/briefing/RCP\\_13.pdf](http://www.brad.ac.uk/acad/sbtwc/briefing/RCP_13.pdf)>.
7. Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, Activities Undertaken by Signatory and Ratifying States Under Measure (k) of the Final Declaration of the 2003 Conference on Facilitating the Entry into Force of the CTBT in the Period September 2003–September 2005, document CTBT–Art.XIV/2005/4, 16 September 2005, p. 18. For more details of the CWC and CTBT experiences, see Daniel Feakes, 2006, “Practical Steps for Accelerating BWC Universality”, *Disarmament Diplomacy* 82, Spring, at <[www.acronym.org.uk/dd/dd82/82df.htm](http://www.acronym.org.uk/dd/dd82/82df.htm)>.
8. Council Joint Action 2006/184/CFSP of 27 February 2006, see note 1.
9. See, for example, Final Document, Fourth Review Conference, 25 November–6 December 1996, UN document BWC/CONF.IV/9, available at <[www.opbw.org](http://www.opbw.org)>.
10. See, for example, VERTIC, 2003, *Time to Lay Down the Law: National Legislation to Enforce the BWC*, London, at <[www.vertic.org/assets/Time%20to%20lay%20down%20the%20law%20-%20final%20report.PDF](http://www.vertic.org/assets/Time%20to%20lay%20down%20the%20law%20-%20final%20report.PDF)>.
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12. Decision: Plan of Action Regarding the Implementation of Article VII Obligations, Eighth Session of the Conference of the States Parties, document C-8/DEC.16, 24 October 2003, at <[www.opcw.org/docs/csp8/en/c8dec16.pdf](http://www.opcw.org/docs/csp8/en/c8dec16.pdf)>.
13. Decision: Follow-up to the Plan of Action Regarding the Implementation of Article VII Obligations, Tenth Session of the Conference of the States Parties, document C-10/DEC.16, 11 November 2005, at <[www.opcw.org/docs/csp10/en/c10dec16.pdf](http://www.opcw.org/docs/csp10/en/c10dec16.pdf)>.
14. United Nations Security Council resolution 1540 (2004) of 28 April 2004, UN document S/RES/1540(2004), 28 April 2004. On 27 April 2006, the Security Council adopted resolution 1673 (2006), which renewed the

- mandate of the committee established by resolution 1540 for a further two years and decided that the committee should intensify its efforts to promote the full implementation of resolution 1540.
15. *Report of the Committee Established Pursuant to Resolution 1540 (2004)*, in UN document S/2006/257, 25 April 2006, paragraph 136.
  16. Council Joint Action 2006/419/CFSP of 12 June 2006, *Official Journal of the European Union*, L 165/30, 17 June 2006, at <[eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l\\_165/l\\_16520060617en00300034.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_165/l_16520060617en00300034.pdf)>.
  17. Final Document, Third Review Conference, 9–27 September 1991, UN document BWC/CONF.III/23, Part II, at <[www.opbw.org/rev\\_cons/3rc/docs/final\\_dec/3RC\\_final\\_dec\\_E.pdf](http://www.opbw.org/rev_cons/3rc/docs/final_dec/3RC_final_dec_E.pdf)>.
  18. François Rivasseau, Speaking notes, QUNO/University of Bradford Seminar, Geneva, 26 April 2006; see also the article by Iris Hunger and Nicolas Isla in this issue of *Disarmament Forum*.
  19. EU Action Plan on Biological and Toxin Weapons, Complementary to the EU Joint Action in Support of the BTWC, 2006/C 57/01, *Official Journal of the European Union*, C 57/1, 9 March 2006, at <[eur-lex.europa.eu/LexUriServ/site/en/oj/2006/c\\_057/c\\_05720060309en00010002.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/c_057/c_05720060309en00010002.pdf)>.
  20. *Strengthening Confidence-Building Measures: Working Paper by South Africa*, UN document BWC/CONF.V/COW/WP.1, 16 November 2001, at <[www.opbw.org/rev\\_cons/5rc/docs/rev\\_con\\_docs/cow/COW-WP.01.pdf](http://www.opbw.org/rev_cons/5rc/docs/rev_con_docs/cow/COW-WP.01.pdf)>; *Towards the Sixth BTWC Review Conference: An Accountability Framework. Discussion Paper Prepared by Canada*, see note 1.
  21. Final Document, Fourth Review Conference, op. cit.; United Nations Security Council resolution 620 (1988) of 26 August 1988, UN document S/RES/620(1988), 26 August 1988.
  22. *Report of the Meeting of States Parties*, UN document BWC/MSP/2004/3, 14 December 2004, paragraph 21, at <[www.opbw.org/new\\_process/msp2004/BWC\\_MSP\\_2004\\_3\\_E.pdf](http://www.opbw.org/new_process/msp2004/BWC_MSP_2004_3_E.pdf)>.
  23. Graham S. Pearson, 2004, “The Biological Weapons Convention Meeting of States Parties”, *The CBW Conventions Bulletin*, no. 66, December, pp. 21–34, at <[www.sussex.ac.uk/Units/spru/hsp/CBWC66.pdf](http://www.sussex.ac.uk/Units/spru/hsp/CBWC66.pdf)>.
  24. EU Action Plan on Biological and Toxin Weapons, op. cit.





# The Biological and Toxin Weapons Convention in context: from monolith to keystone

Piers D. MILLETT

“What we need now is ... [to] bring together the various stakeholders—Governments, industry, science, public health, security, the public writ large—into a common programme, built from the bottom up, to ensure that biotechnology’s advances are used for the public good and that the benefits are shared equitably around the world.”

United Nations Secretary-General Kofi Annan<sup>1</sup>

When it entered into force on 26 March 1975, the Biological and Toxin Weapons Convention (BTWC)<sup>2</sup> was the first international instrument to ban an entire class of weapons. At a time when nuclear weapons topped the security debate, it might have been a “small step” toward ensuring international peace and security but it was a “giant leap” toward the complete prohibition of biological weapons.<sup>3</sup> The BTWC coalesced efforts to strengthen earlier prohibitions of the use of biological weapons in war and represents a considerable expansion of the international norm—from the norm against use enshrined in the 1925 Geneva Protocol to a norm against their very existence (or even efforts to bring them into existence).<sup>4</sup>

As the head of the United States delegation, Don Mahley, noted at the closing session of the Preparatory Committee for the Sixth Review Conference of the BTWC in April 2006:

I think we have reached the point with biological weapons where it is almost the case that civilization ... will actually create a massive reaction if any State or non-State actor were to use biological weapons.<sup>5</sup>

When the BTWC entered into force, it was virtually a lone bastion addressing biological weapons. By the time of its Sixth Review Conference in 2006, there will be a plethora of parallel national, regional, plurilateral, international and multilateral initiatives. The BTWC is the international legal regime at the heart of efforts against biological weapons, but for each of the convention’s active obligations the international community is pursuing complementary aims elsewhere. This article offers a “bird’s-eye view” of these initiatives. It is hoped that drawing a picture of this wider environment will help identify areas in which greater interaction, symbiosis and coordination could strengthen collective efforts against biological weapons.

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## *BTWC obligations*

States parties are bound to a number of obligations under the BTWC and the additional understandings reached at subsequent review conferences. The BTWC's primary obligation is not to develop, stockpile or otherwise acquire or retain biological weapons and associated resources.

### **Box 1. Selected obligations of the Biological and Toxin Weapons Convention**

- To provide and support assistance in suspicious outbreaks of disease and cases of use of biological weapons
- To cooperate, if in a position to do so, in efforts to prevent disease
- To take biosafety precautions for permitted activities
- To cooperate, if in a position to do so, in the further development and application of the biological sciences for peaceful purposes
- To cooperate, if in a position to do so, to promote and finance the establishment of vaccine production facilities
- To remove reservations to the 1925 Geneva Protocol which are incompatible with the aims of the BTWC
- To continue negotiations relating to the Chemical Weapons Convention<sup>a</sup>
- To exchange information and data (the confidence-building measures) on an annual basis
- To review and adopt national measures (including legal measures, biosecurity measures as well as education and awareness raising measures) to implement the prohibitions of the BTWC
- To keep abreast of relevant scientific and technological developments
- To take measures to prevent the transfer of biological weapons or associated resources to anyone
- To destroy or divert to peaceful purposes all biological weapons or associated resources

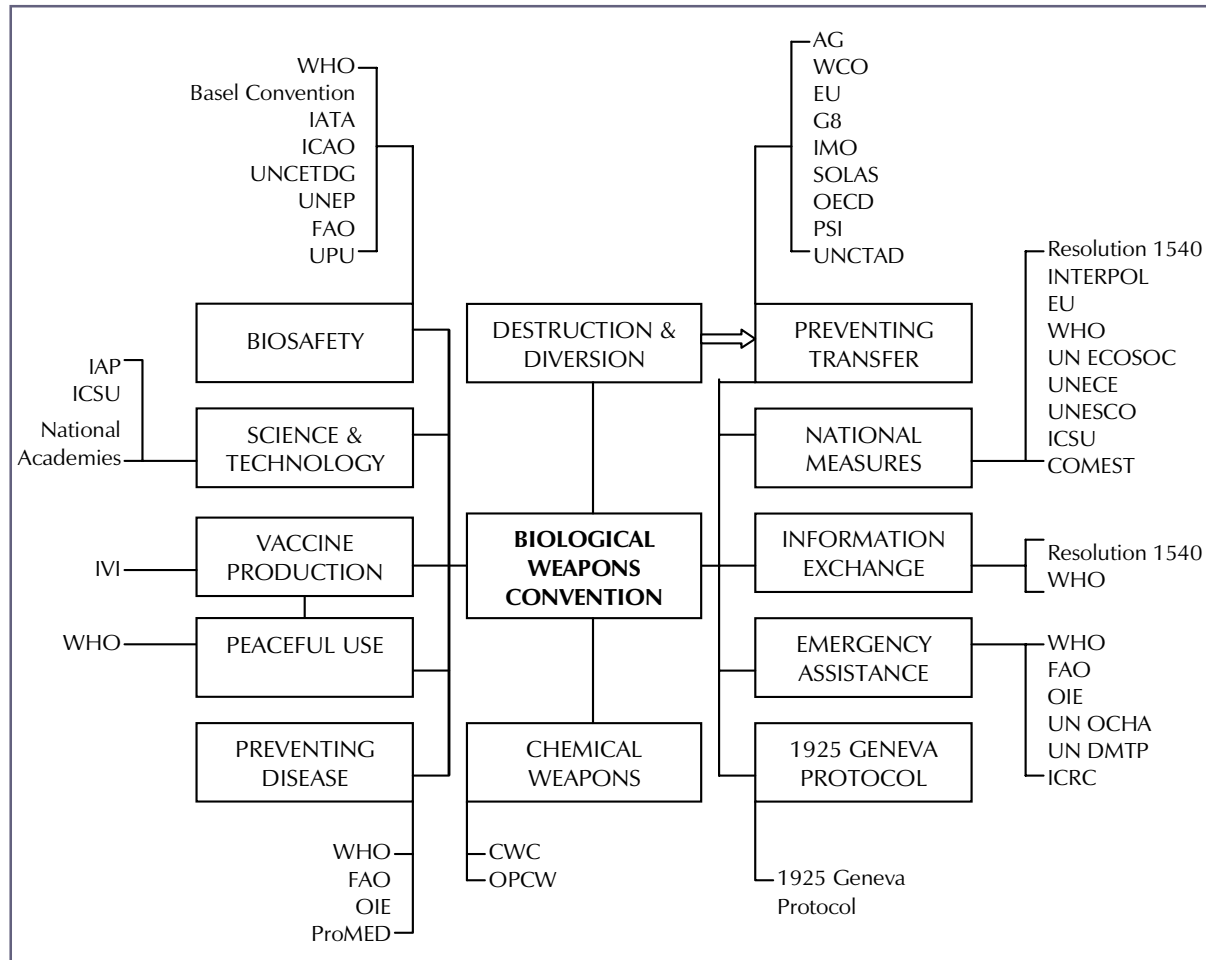
<sup>a</sup> The entry into force of the Chemical Weapons Convention raises the continued relevance of this obligation, and this will be considered later in the article.

In addition, there are obligations that may require direct action (see Box 1). Certain obligations can be fulfilled within the framework of the BTWC—for example, the 2003 BTWC meetings focused on strengthening national prohibition regimes. At the same time, obligations can be addressed in different forums—the World Health Organization (WHO) is the largest intergovernmental organization with an explicit mandate to deal with incidents involving the deliberate spreading of disease and it undertakes a range of activities relevant to the active obligations of the BTWC.<sup>6</sup> This article examines each of the active obligations of the BTWC as outlined above and considers the relevant initiatives. Figure 1 summarizes these data and Box 5, at the end of the article, provides details on how to obtain further information on all of these initiatives.

#### PROVIDING AND SUPPORTING ASSISTANCE IN SUSPICIOUS OUTBREAKS OF DISEASE AND CASES OF THE USE OF BIOLOGICAL WEAPONS

There are well-established mechanisms for dealing with outbreaks of disease that overwhelm the host nation's ability to cope: for example, WHO, the Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (or OIE) have emergency response capabilities. WHO also has a unit dedicated to addressing the threat posed by biological weapons. In addition, the international

**Figure 1. Organizations and initiatives relevant to active obligations of the Biological and Toxin Weapons Convention**



community has a standing capacity to respond to natural and man-made disasters. The United Nations has an Office for the Coordination of Humanitarian Affairs (OCHA). Other organizations specialize in humanitarian responses to acts of war, such as the International Committee of the Red Cross (ICRC). The international community has also addressed capacity building on this issue and the United Nations has a dedicated Disaster Management Training Programme (DMTP).

*WHO Global Outbreak Alert and Response Network*

In 2000, WHO established its Global Outbreak Alert and Response Network (GOARN). GOARN is “an operational framework to link ... expertise and skill to keep the international community constantly alert to the threat of outbreaks and ready to respond”.<sup>7</sup> GOARN coordinates assistance using resources from a network of partners based throughout the world. It has thus developed protocols for network structure, operations and communications that improve the coordination of international support for local efforts. GOARN has responded to over 50 events worldwide and has deployed over 400 experts in more than 40 countries.

### *WHO Preparedness for Deliberate Epidemics*

The Preparedness for Deliberate Epidemics (PDE) group within WHO came about in response to the World Health Assembly resolution on the Global Public Health Response to Natural Occurrence, Accidental Release or Deliberate Use of Biological and Chemical Agents or Radionuclear Material that Affect Health. PDE focuses on four areas.

- International preparedness—including updating WHO guidance with the release in 2004 of the *Public Health Response to Biological and Chemical Weapons*,<sup>8</sup> and establishing a Chemical and Biological Weapons Scientific Advisory Group.
- Global alert and response—redeploying resources developed to deal with natural outbreaks to the public health implications of a deliberate event.
- National preparedness—including developing and testing guidelines for the assessment of national chemical and biological weapons health preparedness and response plans, consulting with DMTP to develop a training module on the management of preparedness and response programmes to chemical, biological and radionuclear incidents, and contributing to national biosafety and biosecurity capacity building.<sup>9</sup>
- Preparedness for selected diseases or intoxications through establishing global networks of experts and laboratories, standards and procedures, disseminating information and setting up and implementing training.

### *Food and Agriculture Organization emergency response*

FAO focuses primarily on prevention of, early warning of and long-term rehabilitation from emergencies that affect food security. It acknowledges that it has a role to play in natural and man-made disasters as well as complex emergencies.<sup>10</sup> FAO has an Emergency Coordination Group, which reports directly to the Deputy Director-General. In cases where it is deemed necessary, the organization fields an Emergency Coordinator to harmonize different elements of the response. It also has a Technical Cooperation Department for Emergency Relief and Rehabilitation, which aims to restore rural livelihoods, especially in the developing world, following emergencies, be they natural or human-induced. The FAO is also developing an emergency preparedness and response manual.

### *World Organisation for Animal Health*

When OIE member states face exceptional epidemiological situations the organization releases emergency funds. These funds are usually used to send experts from the OIE Reference Laboratories or Collaborating Centres to assess the epidemiological situation and assist responses by national authorities or other international organizations.<sup>11</sup>

### *UN Office for the Coordination of Humanitarian Affairs*

In 1991 the United Nations General Assembly passed resolution 46/182 to strengthen its response to complex emergencies and natural disasters. It created the post of Emergency Relief Coordinator to

oversee its efforts in this field. After a number of reforms and reshuffles, OCHA was created to coordinate the work of operational agencies that deliver humanitarian assistance to populations and communities in need. To this end, OCHA maintains an in-house emergency response capacity, supported by a 24-hour monitoring and alert system, to deploy staff at short notice to rapidly evolving catastrophic events. In addition, OCHA supports several “surge capacity” mechanisms and networks that enable the humanitarian community as a whole to respond quickly to emergencies and disasters. In 2006, OCHA is present in 44 countries, including 23 field offices, two Regional Disaster Response Advisors and six Regional Offices. It currently has over 1,100 staff and an annual budget of over US\$ 150 million.

Mechanisms employed by OCHA include:

- United Nations Disaster Assessment and Coordination (UNDAC), which can dispatch teams to gather information, assess needs and coordinate international assistance within 12 to 24 hours of an emergency;
- On-site Operations Coordination Centre, which assists local authorities with coordinating international response teams during disasters;
- Environmental Standby Experts, a joint venture with the UN Environment Programme (UNEP), which functions as UNDAC does, but in relation to environmental disasters; and
- Military and Civil Defence Assets (MCDA) programme, which ensures military resources, when available and appropriate, are effectively used to respond to humanitarian emergencies.

Although it appears not to be a priority area for OCHA, these tools already include elements related to unconventional weapons and events that involve them. For example, the MCDA database includes detection technologies, personal protective equipment and decontamination resources for working in areas that have been attacked with biological weapons.

### *International Committee of the Red Cross*

In 2004, the International Committee of the Red Cross (ICRC) maintained permanent offices in 79 countries, 53 of which conducted assistance efforts. The organization also had just over 13,000 staff, of which over 12,500 were in the field. The assistance programme of the ICRC for victims of war was initiated “to protect the victims’ lives and health, to ease their plight and to ensure that the consequences of conflict - disease, injury, hunger, displacement or exposure to the elements - do not jeopardize their future”.<sup>12</sup>

***The ICRC could be called upon to respond to, or already engaged in a response that becomes complicated by the use of biological weapons.***

The ICRC’s general introduction to its assistance activities indicates:

In certain conflicts, unlawful tactics may be used by either side... . Before providing assistance, the ICRC here attempts to gain acceptance of responsibility from the parties concerned to prevent or end violations of international humanitarian law.<sup>13</sup>

As a result, the ICRC could be called upon to respond to, or already engaged in a response that becomes complicated by the use of biological weapons. However, the safety and security of ICRC staff is of primary concern to the organization, and beyond those covering natural disease events, the ICRC has no published materials indicating that it is prepared or able to provide assistance to those suffering as a result of the use of a biological weapon.

## *UN Disaster Management Training Programme*

The UN Development Programme and the Office of the UN Disaster Relief Co-ordinator, in cooperation with other UN agencies, launched the DMTP in 1990. Its objectives are to reduce the incidence and impact of crisis and disaster occurrences in programme countries; to eliminate the risks and vulnerability relating to such events; to promote effective national and regional strategies in crisis and disaster prevention, preparedness, mitigation, response and recovery, and to encourage efficient coordination and collaboration. The DMTP holds workshops worldwide to implement these objectives, and encourages follow-up activities such as education programmes and technical projects at regional, national and community levels. Discussions have taken place on developing a module specifically tailored to events involving biological weapons.

### COOPERATION TO PREVENT DISEASE

In drawing up the programme of work for the 2003–2005 intersessional process of the BTWC, states parties identified two aspects of cooperation to prevent disease—disease surveillance and disease response.<sup>14</sup> Background documents for the 2004 Meeting of Experts contained information on existing mechanisms for disease surveillance and disease response.<sup>15</sup> Box 2 lists the initiatives examined by the papers. In addressing the two areas of disease surveillance and response, the process implicitly covered other areas, such as disease detection and prophylaxis, as the various aspects of disease prevention are so interrelated.

### **Box 2. Key international initiatives to prevent disease**

FAO Emergency Prevention System – Livestock  
 FAO Good Emergency Management Practice programme  
 FAO Transboundary Animal Disease Information System  
 FAO/OIE/WHO Global Information and Early Warning System  
 International Plant Protection Convention and its web site, the International Phytosanitary Portal  
 OIE Aquatic Animal Health Code  
 OIE Early Warning System  
 OIE network of 170 Collaborating Centres and Reference Laboratories  
 OIE Quality Standard and Guidelines for Veterinary Laboratories  
 OIE Terrestrial Animal Health Code  
 OIE World Animal Health Information System  
 ProMED Mail (Program for Monitoring Emerging Diseases)  
 WHO Collaborating Centres  
 WHO Epidemic and Pandemic Alert and Response  
 WHO Global Outbreak Alert and Response Network  
 WHO Health Action in Crises  
 WHO International Health Regulations

## BIOSAFETY

Technical elements, such as biosafety, are receiving attention just as the more political obligations are being addressed. WHO's Biosafety Programme aims to prevent the spread of disease caused by accidents with, or inappropriate handling or usage of, pathogenic microorganisms, through:

- the development of norms, standards and model regulations;
- the development of biosafety publications, including the WHO *Laboratory Biosafety Manual*;
- the publication of biosafety information;
- the provision of technical assistance to member states; and
- advocacy, including actively promoting biosafety activities in WHO programmes and representing WHO at international and national biosafety organizations.

A number of other organizations are active on biosafety at the international level, including the International Air Transport Association (IATA), the International Civil Aviation Organization (ICAO), the UN Committee of Experts on the Transport of Dangerous Goods (UNCETDG), the Universal Postal Union (UPU) and the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal, and considerable coordination exists between the various programmes. (See the WHO Biosafety Programme web site, listed in Box 5, for a complete list of organizations involved.)

## COOPERATION TO FURTHER THE BIOLOGICAL SCIENCES FOR PEACEFUL PURPOSES

Obligations to ensure that the biological sciences are used for the benefit of humankind go further than simply preventing disease. Any collaborative activity that touches on the biological sciences and is connected with development, trade, agriculture, the environment, health, transport, industry or education could be considered relevant to furthering the biological sciences for peaceful purposes, and they are too numerous to catalogue here. For indicative purposes, three specific WHO initiatives are considered.

### *Revised International Health Regulations*

In 2005 WHO adopted a revised set of International Health Regulations to "...prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade".<sup>16</sup>

Article 44 of the regulations relates directly to furthering the biological sciences for peaceful purposes, as it details undertakings for collaboration and assistance. It specifies that states collaborate in response to events, in maintaining and building public health capacity and legislation, and in mobilizing financial resources.



### *Draft Global Framework on Essential Health Research and Development*

The WHO Executive Board has been working on developing a Global Framework for Essential Health Research and Development. Such a framework would represent a comparatively rare formal agreement to implement undertakings, such as those found in the BTWC, to ensure the benefits of developments in the biological sciences are enjoyed by all on an equitable and fair basis. An open-ended working group was established on the topic, and it has produced a draft resolution.<sup>17</sup> This is a draft framework that urges WHO member states to take action to emphasize priorities in research and development, especially in resource-poor settings; to harness collaborative research and development initiatives; to ensure that progress in basic science and biomedicine is translated into improved, safe and affordable health products; and to ensure that capacity is strengthened to support rapid delivery of essential medicines.

The Executive Board was unable to reach consensus on a number of phrases in the text but nevertheless submitted it to the Fifty-ninth World Health Assembly, which decided:

...to establish ... an intergovernmental working group ... to draw up a global strategy and plan of action in order to provide a medium-term framework ... [aiming] at, inter alia, securing an enhanced and sustainable basis for needs-driven, essential health research and development relevant to diseases that disproportionately affect developing countries.<sup>18</sup>

### *Enhancing national epidemic preparedness and response capabilities*

The WHO Office for National Epidemic Preparedness and Response in Lyon, France, was created to “contribute to global health security by strengthening national capacities for the early detection, rapid verification and appropriate response to epidemics, be they of natural, accidental or deliberate origin”.<sup>19</sup> The report of the office for 2005 indicated that it had conducted:

- in-country activities to build and support capacity;
- networking enhancement;
- training; and
- efforts to develop global reference tools, for example regarding improving epidemiological surveillance or reducing risks of infection in health-care facilities.

Staff from the office can also be deployed to states in urgent need of technical assistance as a result of epidemics or other emergencies.

### COOPERATION TO ESTABLISH VACCINE PRODUCTION FACILITIES

Vaccine production has been identified as an area for particular focus among efforts to promote the peaceful use of the biological sciences. Perhaps the most pertinent developments can be found in the work of the International Vaccine Institute (IVI), established at the initiative of the United Nations Development Programme. It has 35 member states plus WHO. Its mission is to “...contribute to the reduction of vaccine preventable diseases in developing countries by collaborative research that generates the evidence needed for rational introduction of new vaccines, supported by programs of basic and applied laboratory research, product development, training, and technical assistance”.<sup>20</sup>

Recent achievements include developing a programme for Japanese encephalitis, measuring the disease burden in Asian children, the formation of specialist teams and networks for studies of vaccines and the provision of training and technical assistance.

#### REMOVING INCOMPATIBLE RESERVATIONS FROM THE 1925 GENEVA PROTOCOL

The 1925 Geneva Protocol prohibits the use of biological weapons in war. It does not cover their use in other types of hostile action, nor does it prevent the development, production and stockpiling of these weapons.

Reservations to the protocol even permitted certain states bound by its terms to use biological weapons in war under specific circumstances. Many such reservations, and others that were also in direct contravention of the BTWC, have now been removed. At a meeting co-hosted by France (the depositary) and Switzerland to mark the eightieth anniversary of the signing of the protocol, participants were informed that the vast majority of substantive reservations had been removed—the only remaining reservations do not affect obligations under the BTWC.<sup>21</sup>

#### THE CHEMICAL WEAPONS CONVENTION

The Chemical Weapons Convention (CWC) entered into force on 29 April 1997.<sup>22</sup> It is deposited with the UN Secretary-General and prohibits the development, production, acquisition, transfer, stockpiling and use of chemical weapons.

Since the entry into force of the CWC, no BTWC review conference has addressed how the successful conclusion of the CWC negotiations affects the BTWC obligation to continue negotiation of a chemical weapons convention. It might be presumed that these provisions are now translated into a mandate to establish an effective working relationship. As both conventions address the hostile use of toxins, the BTWC and CWC overlap, and this ensures that there is no gap between the two regimes. Therefore the conventions provide a firm foundation for coordinated, collaborative activities—although some disparity continues to exist between the membership of the CWC and that of the BTWC.

#### EXCHANGE OF INFORMATION AND DATA

The BTWC has no central organizational structure of its own, but it uses its confidence-building measures (CBMs) to reduce ambiguities, doubts and suspicions among member states. Member states are asked annually to submit information on the following: research and development programmes; outbreaks of infectious diseases caused by toxins; publications of results and use of knowledge; promotion of contacts; legislation and regulation; past offensive or defensive biological research programmes; and vaccine production. Since the CBMs were instituted, exchanges of additional related information have begun in other forums. For example, the updated International Health Regulations will require reporting of a variety of different disease events—some of which may be relevant to the BTWC. Equally, states are now required to report relevant legislation, regulations and other measures under UN Security Council resolution 1540 on the non-proliferation of weapons of mass destruction. Nonetheless, much of the information made available under the CBMs is available nowhere else and as such they are an invaluable resource. The possibility of improving the CBMs, perhaps by addressing duplication in reporting, is likely to be one of the topics discussed at the Sixth Review Conference.<sup>23</sup>

## NATIONAL MEASURES TO IMPLEMENT PROHIBITIONS AGAINST BIOLOGICAL WEAPONS

The BTWC has obligations for implementing its terms domestically, but states parties have asserted that there cannot be one universal model for implementation: effective national prohibitions must be tailored to the specific requirements of individual states. States have, however, identified a number of areas that should be addressed by all when reviewing and adopting national measures: legislative, administrative and other measures; biosecurity; and education and awareness raising. Some work has been carried out at the international level to aid national implementation in all these areas.

### *Legislative, administrative and other measures*

In April 2004, the United Nations Security Council passed resolution 1540, which made the BTWC prohibitions against the acquisition and use of biological weapons by non-state actors binding in all states, and mandated that all states have national measures to implement these prohibitions.<sup>24</sup> The Security Council established a dedicated committee to monitor the implementation of the resolution; conduct outreach activities; coordinate requests for assistance and offers to provide assistance; and help states draw up plans for the full implementation of the resolution. The committee's mandate was renewed in April 2006: it calls for ongoing dialogue with instruments such as the BTWC and looks toward coordinated action to facilitate implementation.<sup>25</sup>

But just having measures on the books is insufficient to protect against biological weapons. It is necessary that they be effectively operationalized. Interpol's bioterrorism programme is working to raise awareness of the threat, develop police training programmes, strengthen enforcement, promote new legislation and encourage inter-agency cooperation. Action is also being undertaken at the regional level. In 2006, the European Union adopted a Joint Action in support of the BTWC. This provides resources for up to 12 national assistance visits to help prepare and adopt national measures. These visits are available to all non-EU states party to the BTWC.

### *Biosecurity*

As with biosafety, WHO is probably the most active international organization on biosecurity. Although WHO has no dedicated biosecurity programme, it is dealt with under biosafety. For example, the last edition of the *Laboratory Biosafety Manual* contained a section on biosecurity. It is likely that the next version will contain more biosecurity information. On a practical level, the Office for National Epidemic Preparedness and Response (mentioned above) has been building national capacity for biosecurity.

Connected to biosecurity is the transport of dangerous goods. Efforts to ensure the safety of dangerous goods during transport have been expanded to examine elements of biosecurity. There are a number of relevant international legal instruments and recommendations (see Box 3). The United Nations Economic and Social Council (ECOSOC) and the United Nations Economic Commission for Europe (UNECE) provide support for these efforts. ECOSOC has a Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals. UNECE has a Working Party on the Transport of Dangerous Goods and a number of ad hoc committees and meetings of experts to service other instruments.

### Box 3. International legal instruments on the transport of dangerous goods

Convention on Civil Liabilities for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels  
 Globally Harmonized System of Classification and Labelling of Chemicals  
 International Carriage of Dangerous Goods by Inland Waterways and its attendant regulation  
 International Carriage of Dangerous Goods by Road and its supplementary Protocol United Nations *Manual of Tests and Criteria* (classification of dangerous goods)  
 United Nations Recommendations on the Transport of Dangerous Goods and Its Model Regulations

#### *Education and awareness raising*

Efforts to legislate, regulate and oversee access to and the use of biological sciences and technology can only have a limited impact if they are not widely known about, understood and adhered to. It is necessary, therefore, to actively pursue awareness-raising activities about the 1925 Geneva Protocol and the BTWC, as well as attendant national implementation and biosecurity legislation and regulations.

Some limited progress has been made. For example, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has undertaken to develop codes of conduct governing the ethical responsibilities of scientists. The 1999 World Conference on Science asked UNESCO's World Commission on the Ethics of Scientific Knowledge and Technology (COMEST), in collaboration with the International Council for Science (ICSU), to strengthen ethics in science education and practice. COMEST agreed to prepare a feasibility study, but at UNESCO's General Conference in 2005, member states were unable to agree on the necessity of developing a normative instrument in this area and therefore decided that conducting a feasibility study was premature. As a result, it tasked COMEST with pursuing reflection on the question of scientific ethics. COMEST is now holding a series of regional consultations and seeking input. The 2005 meetings of the BTWC and any relevant follow-up activities have ensured that the views and opinions expressed by states parties will have been incorporated into this process.

#### RELEVANT SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS

Another activity where the scientific community has an important role to play is in keeping abreast of relevant scientific and technological developments. Scientific academies and professional societies represent a much underused resource in remaining up to date with developments that may impinge upon the BTWC. At the international level, the InterAcademy Panel on International Issues has addressed the topic and on 7 November 2005 released a Statement on Biosecurity. Equally, ICSU has a long history of engaging in the science policy debate. National academies have also produced works of relevance. The United States National Academies have published a series of reports examining these issues, and the Royal Society in the United Kingdom also works to reduce the threat of biological weapons.

#### PREVENTING THE TRANSFER OF BIOLOGICAL WEAPONS AND ASSOCIATED RESOURCES

Here we return to the BTWC's primary obligation: prohibiting the acquisition and retention of biological weapons.

### *International transfer control efforts*

A number of states have adopted an informal, collaborative approach to the potential transfer of biological weapons. This initiative, known as the Australia Group (AG), meets annually to discuss ways of increasing the effectiveness of participating countries' national export licensing. The AG has developed common control lists of materials requiring licenses for exports, which include plant pathogens, animal pathogens, biological agents and dual-use biological resources, but it stresses that applications for licenses "are denied only if there is a well founded concern about potential diversion for CBW [Chemical and Biological Weapons] purposes".<sup>26</sup>

### *Strengthening national transfer control regimes*

Almost every state in the world attempts to control what can and cannot cross its borders through national customs agencies. The World Customs Organization (WCO) brings national customs administrations together to improve cooperation and promote effective customs systems, offering a wide range of technical assistance and training. In June 2005, the WCO adopted the *Framework of Standards to Secure and Facilitate Global Trade* to protect world trade from threats (such as the transfer of biological weapons and associated resources) while providing a platform to facilitate the movement of legitimate goods being traded internationally.

### *Other non-proliferation activities*

Non-proliferation of unconventional weapons and related resources has received considerable attention from the international community in the last few years. As a result a large number of relevant international initiatives have been launched or expanded (see Box 4). National approaches and viewpoints on the best way to tackle proliferation differ and there is some disparity in the memberships of the various initiatives. The approaches, proceedings and organizational structure of the different activities also vary. (Some even insist on being "initiatives" rather than organizations.) On the other hand, a high degree of collaboration and interoperability between initiatives is evident, with measures agreed upon in one forum being implemented through another, all serving to support the BTWC.

#### **Box 4. Selected international non-proliferation initiatives**

Container Security Initiative  
 European Union Cooperation Programme for Non-proliferation and Disarmament in the Russian Federation  
 G8 Action Plan on Non-Proliferation  
 G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction  
 International Maritime Organization's (IMO) maritime security regime  
 International Ship and Port Facility Code of the 1974 International Convention for the Safety of Life at Sea (SOLAS)  
 OECD Maritime Transport Committee  
 Proliferation Security Initiative (PSI)  
 United Nations Conference on Trade and Development (UNCTAD) Transport and Trade Logistics programme

## DESTRUCTION AND DIVERSION TO PEACEFUL PURPOSES OF BIOLOGICAL WEAPONS OR ASSOCIATED RESOURCES

Recent initiatives to convert facilities or retrain personnel possessing capacities that could be used by those seeking to acquire biological weapons are often carried out under the banner of non-proliferation, i.e. the obligation to prevent transfer. It is possible, should a state wish to dismantle an offensive programme, that resources could be made available to it under various cooperative threat reduction and non-proliferation initiatives such as those in Box 4. There is, however, currently no internationally agreed standing capacity, guidelines or lead institution for destruction and diversion activities under the BTWC.

### *Conclusions*

Since its negotiation both the BTWC and the landscape surrounding it have changed considerably. In the early 1970s the convention stood as a lone monolith confronting the biological-weapon threat. Today, the BTWC is a crucial keystone among numerous instruments and initiatives in our collective defences against poisoning and deliberate disease.

The aims and objectives being pursued elsewhere all relate differently to the BTWC:<sup>27</sup> a number relate directly to the convention's primary aim of prohibiting the development, production, acquisition, transfer, stockpiling and use of biological weapons; others contribute to collective action on the convention's many other provisions, such as the capacity to mitigate or respond to the use of biological weapons; and several activities described here are development tools, ensuring that the benefits of biological science and technology can be shared by all.

But all support the BTWC: the convention can no longer be viewed in a vacuum. Its work is influenced by—and in turn influences—a number of other organizations and initiatives. This suggests a twofold imperative: to embrace external resources and capacity that can further the collective efforts of states parties under the BTWC; and to ensure that the BTWC contributes to the fullest extent possible to efforts in fields that match its aims and objectives. This message has not been lost on states parties. An unprecedented range of organizations participated in recent annual BTWC meetings, which were generally considered to have succeeded beyond expectations.<sup>28</sup> Many of these organizations had never previously been present at a BTWC meeting. Equally, BTWC meetings have contributed to efforts in these other forums by providing a more global perspective, additional information, or by prompting further activity. It is to be hoped that this foundation will be consolidated and that the coming years will see closer working relationships between the various efforts.

Considering our shared challenges in today's interdependent society, it is particularly important to certify that we use every tool at our disposal to its full potential to prevent disease ever being used as a weapon. Such an approach will require efficient networking so that duplications are minimized and effective channels of communication are opened and used regularly. Therefore every attempt should be made to harmonize, coordinate and synchronize all activities by the various stakeholders into a comprehensive international network dedicated to ensuring that all achievements in the biological sciences are used exclusively for the benefit of humankind.

**Box 5. Tools available to support the BTWC**

- Australia Group  
[www.australiagroup.net](http://www.australiagroup.net)
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal  
[www.basel.int/index.html](http://www.basel.int/index.html)
- Chemical Weapons Convention  
 see OPCW
- Container Security Initiative  
[www.cbp.gov/xp/cgov/border\\_security/international\\_activities/csi/](http://www.cbp.gov/xp/cgov/border_security/international_activities/csi/)
- Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels  
[www.unece.org/trans/danger/publi/crtcd/crtcd\\_e.html](http://www.unece.org/trans/danger/publi/crtcd/crtcd_e.html)
- ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals  
[www.unece.org/trans/danger/danger.htm](http://www.unece.org/trans/danger/danger.htm)
- EU Council Joint Action in support of the Biological and Toxin Weapons Convention (2006/184/CFSP of 27 February 2006)  
[eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l\\_065/l\\_06520060307en00510055.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_065/l_06520060307en00510055.pdf)
- EU Council Joint Action on a Cooperation Programme for Non-proliferation and Disarmament in the Russian Federation (2003/472/CFSP of 24 June 2003 and 1999/878/CFSP of 17 December 1999)  
[eur-lex.europa.eu/LexUriServ/site/en/oj/2003/l\\_157/l\\_15720030626en00690071.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/oj/2003/l_157/l_15720030626en00690071.pdf)
- FAO Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES)  
[www.fao.org/ag/AGA/AGAH/EMPRES/index.htm](http://www.fao.org/ag/AGA/AGAH/EMPRES/index.htm)
- FAO Emergency Relief and Rehabilitation  
[www.fao.org/reliefoperations/index\\_en.asp](http://www.fao.org/reliefoperations/index_en.asp)
- FAO Good Emergency Management Practice programme  
[www.fao.org/ag/AGa/Agah/empres/e\\_gemp.htm](http://www.fao.org/ag/AGa/Agah/empres/e_gemp.htm)
- FAO Transboundary Animal Disease Information System  
[www.fao.org/ag/aga/agah/empres/tadinfo2/e\\_tadinf.htm](http://www.fao.org/ag/aga/agah/empres/tadinfo2/e_tadinf.htm)
- FAO/OIE/WHO Global Information and Early Warning System  
[www.fao.org/gIEWS/english/index.htm](http://www.fao.org/gIEWS/english/index.htm)
- G8 Action Plan on Non-Proliferation  
[www.whitehouse.gov/news/releases/2004/06/20040609-28.html](http://www.whitehouse.gov/news/releases/2004/06/20040609-28.html)
- G8 Global Partnership against the Spread of Weapons and Materials of Mass Destruction  
[www.g8.gc.ca/2002Kananaskis/globpart-en.asp](http://www.g8.gc.ca/2002Kananaskis/globpart-en.asp)
- Geneva Protocol  
[www.opbw.org/int\\_inst/sec\\_docs/1925GP-TEXT.pdf](http://www.opbw.org/int_inst/sec_docs/1925GP-TEXT.pdf)
- Globally Harmonized System of Classification and Labelling of Chemicals  
[www.unece.org/trans/danger/publi/ghs/ghs\\_welcome\\_e.html](http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html)
- ICRC Assistance Programme  
[www.icrc.org/web/eng/siteeng0.nsf/iwplList2/ICRC\\_Activities:Assistance?OpenDocument](http://www.icrc.org/web/eng/siteeng0.nsf/iwplList2/ICRC_Activities:Assistance?OpenDocument)
- InterAcademy Panel on International Issues, Statement on Biosecurity  
[www.interacademies.net/Object.File/Master/5/399/Biosecurity%20St..pdf](http://www.interacademies.net/Object.File/Master/5/399/Biosecurity%20St..pdf)
- International Carriage of Dangerous Goods by Inland Waterways  
[www.unece.org/trans/danger/adn-agree.html](http://www.unece.org/trans/danger/adn-agree.html)
- International Carriage of Dangerous Goods by Road  
[www.unece.org/trans/danger/publi/adr/adr\\_e.html](http://www.unece.org/trans/danger/publi/adr/adr_e.html)
- International Council for Science, Standards for Ethics and Responsibility in Science  
[www.icsu.org/2\\_resourcecentre/Resource.php4?rub=7&id=78](http://www.icsu.org/2_resourcecentre/Resource.php4?rub=7&id=78)
- International Maritime Organization's maritime security regime  
[www.imo.org/Newsroom/mainframe.asp?topic\\_id=861](http://www.imo.org/Newsroom/mainframe.asp?topic_id=861)

International Plant Protection Convention and the International Phytosanitary Portal  
[www.ippc.int](http://www.ippc.int)

International Ship and Port Facility Security Code  
[www.imo.org/About/mainframe.asp?topic\\_id=583&doc\\_id=2689](http://www.imo.org/About/mainframe.asp?topic_id=583&doc_id=2689)

International Vaccine Institute  
[www.ivi.int](http://www.ivi.int)

Interpol Bioterrorism Programme  
[www.interpol.int/Public/BioTerrorism/default.asp](http://www.interpol.int/Public/BioTerrorism/default.asp)

National Academies Press, Microbial Threats and Emerging Infections  
[www.nap.edu/collections/terror/index.html#373](http://www.nap.edu/collections/terror/index.html#373)

OECD Maritime Transport Committee  
[www.oecd.org/document/53/0,2340,en\\_2649\\_34367\\_2088757\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/53/0,2340,en_2649_34367_2088757_1_1_1_1,00.html)

OIE Aquatic Animal Health Code  
[www.oie.int/eng/normes/en\\_acode.htm](http://www.oie.int/eng/normes/en_acode.htm)

OIE Collaborating Centres  
[www.oie.int/eng/OIE/organisation/en\\_CC.htm](http://www.oie.int/eng/OIE/organisation/en_CC.htm)

OIE Early Warning System  
[www.oie.int/eng/info/images/A\\_alert.gif](http://www.oie.int/eng/info/images/A_alert.gif)

OIE Quality Standard and Guidelines for Veterinary Laboratories  
[www.oie.int/eng/publicat/ouvrages/A\\_112.htm](http://www.oie.int/eng/publicat/ouvrages/A_112.htm)

OIE Reference Laboratories  
[www.oie.int/eng/OIE/organisation/en\\_LR.htm](http://www.oie.int/eng/OIE/organisation/en_LR.htm)

OIE Terrestrial Animal Health Code  
[www.oie.int/eng/normes/en\\_mcode.htm](http://www.oie.int/eng/normes/en_mcode.htm)

OIE World Animal Health Information System  
[www.oie.int/eng/info/images/A\\_NewSystem\\_web\\_2.gif](http://www.oie.int/eng/info/images/A_NewSystem_web_2.gif)

OPCW  
[www.opcw.org](http://www.opcw.org)

Proliferation Security Initiative  
[www.proliferationsecurity.info](http://www.proliferationsecurity.info)

ProMED Mail  
[www.promedmail.org](http://www.promedmail.org)

Royal Society on biological weapons  
[www.royalsoc.ac.uk/landing.asp?id=1230](http://www.royalsoc.ac.uk/landing.asp?id=1230)

UN Disaster Management Training Programme  
[www.undmtp.org](http://www.undmtp.org)

UN *Manual of Tests and Criteria* (classification of dangerous goods)  
[www.unece.org/trans/danger/publi/manual/manual\\_e.html](http://www.unece.org/trans/danger/publi/manual/manual_e.html)

UN Office for the Coordination of Humanitarian Affairs  
[ochaonline.un.org/webpage.asp?Site=facts](http://ochaonline.un.org/webpage.asp?Site=facts)

UN Recommendations on the Transport of Dangerous Goods. Model Regulations  
[www.unece.org/trans/danger/publi/unrec/rev13/13nature\\_e.html](http://www.unece.org/trans/danger/publi/unrec/rev13/13nature_e.html)

UN Security Council resolution 1540 (2004) and Committee  
[disarmament2.un.org/Committee1540/index.html](http://disarmament2.un.org/Committee1540/index.html)

UNCTAD Transport and Trade Logistics, container security study  
[www.unctad.org/en/docs/sdtetlb20041\\_en.pdf](http://www.unctad.org/en/docs/sdtetlb20041_en.pdf)

UNECE Working Party on the Transport of Dangerous Goods  
[www.unece.org/trans/main/dgdb/wp15/wp15age.html](http://www.unece.org/trans/main/dgdb/wp15/wp15age.html)

UNESCO Scientific Ethics Programme  
[portal.unesco.org/shs/en/ev.php-URL\\_ID=1837&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.php-URL_ID=1837&URL_DO=DO_TOPIC&URL_SECTION=201.html)

UNESCO World Commission on the Ethics of Scientific Knowledge and Technology  
[portal.unesco.org/shs/en/ev.php-URL\\_ID=6193&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.php-URL_ID=6193&URL_DO=DO_TOPIC&URL_SECTION=201.html)



WHO Biosafety Programme  
[www.who.int/csr/labepidemiology/projects/biosafety/en/](http://www.who.int/csr/labepidemiology/projects/biosafety/en/)

WHO Collaborating Centres  
[whqlily.who.int/](http://whqlily.who.int/)

WHO Draft Global Framework on Essential Health Research and Development  
[www.who.int/gb/ebwha/pdf\\_files/WHA59/A59\\_17-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA59/A59_17-en.pdf)

WHO Epidemic and Pandemic Alert and Response  
[www.who.int/csr/en/](http://www.who.int/csr/en/)

WHO Global Outbreak Alert and Response Network  
[www.who.int/csr/outbreaknetwork/en/](http://www.who.int/csr/outbreaknetwork/en/)

WHO Health Action in Crises  
[www.who.int/hac/about/en/](http://www.who.int/hac/about/en/)

WHO International Health Regulations  
[www.who.int/gb/ebwha/pdf\\_files/WHA58/A58\\_55-en.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA58/A58_55-en.pdf)

WHO *Laboratory Biosafety Manual*  
[www.who.int/csr/resources/publications/biosafety/WHO\\_CDS\\_CSR\\_LYO\\_2004\\_11/en](http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_CSR_LYO_2004_11/en)

WHO Office for National Epidemic Preparedness and Response, Lyon  
[www.who.int/csr/labepidemiology/en/](http://www.who.int/csr/labepidemiology/en/)

WHO Preparedness for Deliberate Epidemics  
[www.who.int/csr/delibepidemics/en/](http://www.who.int/csr/delibepidemics/en/)

World Customs Organization, *Framework of Standards to Secure and Facilitate Global Trade*  
[www.wcoomd.org/ie/En/Press/WCO%20-%20FRAMEWORK%20OF%20STANDARDS%20June%202021%20Final.pdf](http://www.wcoomd.org/ie/En/Press/WCO%20-%20FRAMEWORK%20OF%20STANDARDS%20June%202021%20Final.pdf)

## Notes

1. *Uniting against Terrorism: Recommendations for a Global Counter-Terrorism Strategy. Report of the Secretary-General*, UN document A/60/825, 27 April 2006.
2. Full title: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, at <[www.unog.ch/bwc](http://www.unog.ch/bwc)>.
3. For the purposes of this article the phrase “biological weapons” is taken as encompassing: microbial or other biological agents or toxins, naturally or artificially created as well as their constituent parts, which are harmful to humans, animals or plants, whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; and weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.
4. Full title: Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, and other Gases, and of Bacteriological Methods of Warfare, opened for signature 17 June 1925, entry into force in 1929, at <[www.opbw.org/int\\_inst/sec\\_docs/1925GP-TEXT.pdf](http://www.opbw.org/int_inst/sec_docs/1925GP-TEXT.pdf)>.
5. D. Mahley, speaking at the Closing Plenary of the Preparatory Committee for the Sixth Review Conference of the Biological Weapons Convention, Geneva, 28 April 2006.
6. Global Public Health Response to Natural Occurrence, Accidental Release or Deliberate Use of Biological and Chemical Agents or Radionuclear Material that Affect Health, World Health Assembly resolution WHA55.16, 18 May 2002, at <[www.who.int/gb/ebwha/pdf\\_files/WHA55/ewha5516.pdf](http://www.who.int/gb/ebwha/pdf_files/WHA55/ewha5516.pdf)>.
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11. Secretariat, *The World Organization for Animal Health*, UN document BWC/MSP/2004/INF.1, 1 November 2004, at <[www.opbw.org/new\\_process/msp2004/BWC\\_MSP\\_2004\\_Inf.1\\_E.pdf](http://www.opbw.org/new_process/msp2004/BWC_MSP_2004_Inf.1_E.pdf)>.
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13. Ibid.
14. For more on the 2003–2005 BTWC intersessional process, see the article by Richard Lennane in this issue of *Disarmament Forum*.
15. See: Secretariat, *Mechanisms Being Implemented for Disease Surveillance by Intergovernmental Organizations (World Health Organization (WHO), Food and Agriculture Organization (FAO), World Organization for Animal Health / Office International des Epizooties (OIE) and Significant Mechanisms being Implemented for Disease Surveillance by Non-Governmental Organizations*, UN document BWC/MSP/2004/MX/INF.1, 1 July 2004, at <[www.opbw.org/new\\_process/mx2004/bwc\\_msp.2004\\_mx\\_inf.1\\_E.pdf](http://www.opbw.org/new_process/mx2004/bwc_msp.2004_mx_inf.1_E.pdf)> and Secretariat, *Mechanisms being Implemented for Response to Outbreaks of Disease by Intergovernmental Organizations (World Health Organization (WHO), Food and Agriculture Organization (FAO), World Organization for Animal Health / Office International des Epizooties (OIE))*, UN document BWC/MSP/2004/MX/INF.2, 1 July 2004, at <[www.opbw.org/new\\_process/mx2004/bwc\\_msp.2004\\_mx\\_inf.2\\_E.pdf](http://www.opbw.org/new_process/mx2004/bwc_msp.2004_mx_inf.2_E.pdf)>.
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20. International Vaccine Institute, *Mission*, at <[www.ivi.int](http://www.ivi.int)>.
21. The United States government web site has a copy of the protocol with details of the reservations removed at <[www.state.gov/t/ac/trt/4784.htm](http://www.state.gov/t/ac/trt/4784.htm)>.
22. Full title: Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction.
23. For more on the confidence-building measures of the BTWC, see the article by Iris Hunger and Nicolas Isla in this issue of *Disarmament Forum*.
24. UN Security Council resolution 1540 (2004), UN document S/RES/1540(2004), 28 April 2004.
25. UN Security Council resolution 1673 (2006), UN document S/RES/1673(2006), 27 April 2006.
26. Australia Group, *Activities*, at <[www.australiagroup.net/en/agact.htm](http://www.australiagroup.net/en/agact.htm)>.
27. Some work toward benefits beyond the scope of the BTWC, for example developing measures to respond to an attack with a biological weapon could also be deployed in the case of a natural disease event.
28. See the article by Richard Lennane in this issue of *Disarmament Forum*.



### NEW PUBLICATION

#### *Costs of Disarmament: Cost Benefit Analysis of SALW Destruction Versus Storage*

The Cost Benefit Analysis Model was developed in order to allow states to estimate the real costs involved in ammunition and weapon storage. It allows each storage depot to calculate its full running costs, and how much time it would take to break even in terms of the alternative costs of destruction. It also allows a comparison of the potential benefits from sale versus the costs of storage. The financial accounting systems of many states are often not sophisticated enough to identify these true costs. This model will help them to do this. The model is in the form of an Excel spreadsheet, which comes on the accompanying CD-ROM.

The model was developed with assistance from SEESAC and the UK Ministry of Defence. It was tested in Bosnia and Herzegovina (BiH). As BiH is currently undergoing major demilitarization and armed forces restructuring, this study is timely, particularly because BiH is one of the states in the region that has expressed a desire to sell its surplus weapons and ammunition rather than destroy it. The initial investment costs of bringing BiH storage depots up to NATO standards are high. In addition, the level of investment required each year to maintain these standards is high. While this model was originally commissioned to help states in South-Eastern Europe make decisions about the future of their surplus stocks, the model is applicable to all other regions. It is hoped that it will be a useful tool for all ministries of defence wishing to compare the costs of storage versus destruction, and the potential benefits from sale versus the costs of storage.

#### *Costs of Disarmament: Cost Benefit Analysis of SALW Destruction Versus Storage*

Mandy Turner

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In each issue of *Disarmament Forum*, UNIDIR Focus highlights one activity of the Institute, outlining the project's methodology, recent research developments or its outcomes. UNIDIR Focus also describes a new UNIDIR publication. You can find summaries and contact information for all of the Institute's present and past activities, as well as sample chapters of publications and ordering information, online at <[www.unidir.org](http://www.unidir.org)>.

## NEW ACTIVITY

### *The Humanitarian Impact of Cluster Munitions*

Cluster munitions and other explosive remnants of war (ERW) affect the lives and livelihoods of individuals and communities living in contaminated areas. They are also a risk to aid workers, peacekeepers and military personnel, and their presence hampers humanitarian, peacebuilding and development efforts.

A growing body of literature identifies the humanitarian and development impact of cluster munitions. However, work in this area is often limited to examples of use by a few countries or coalitions, and only a small number of countries where information is easily obtainable.

UNIDIR has undertaken an eight-month project to expand the data available on cluster munitions by looking at use by other actors and in countries where little information is currently available. Through questionnaires, interviews and fieldwork, a broad group of people will be consulted—those working in affected areas as well as the victims and families directly affected. Additionally, the impressions of deminers, emergency medical staff, those working in prosthetics and longer term rehabilitation as well as those working in development will be gathered in order to provide a more comprehensive global view of the humanitarian impact of cluster munitions.

The experiences of Afghanistan and Cambodia will be examined in detail. These case studies will provide examples of the humanitarian impact of cluster munitions in the short, medium and long term. The specific impact on gender and on vulnerable groups such as children and youth will be investigated. Additional data such as incident numbers, casualty rates and economic indicators will also be gathered.

The project, supported by the Governments of Canada, New Zealand and Norway, will ultimately produce a report documenting the findings, providing details of the two case studies and offering policy recommendations.

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