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The Biological and Toxin Weapons Convention

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Summary

The Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction prohibits the development, production, acquisition, transfer, stockpiling and use of microbial or other biological agents, or toxins in a manner which has no justification for prophylactic, protective or other peaceful purposes. It also bans weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. It covers biological and toxin weapons against humans, animals and plants. This article provides a brief history of the Convention and presents an overview of its five Review Conferences; the 'Ad Hoc Group of Governmental Experts, open to all States Parties, to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint' (usually referred to as VEREX); and efforts to develop a legally binding instrument to strengthen the Convention, as well as the annual meetings of experts and States Parties which have taken place over the last three years. Issues of particular relevance to the World Organisation for Animal Health (OIE) are highlighted throughout, demonstrating their longstanding and fruitful contributions to ensuring that veterinary science is used only for the benefit of mankind.

Keywords

Biological weapon – Bioterrorism – Deliberate disease – Disarmament – Geneva Protocol – International law – Non-proliferation – Poisoning – United Nations.

Introduction

The Convention on the Prohibition of the Development, Production, and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (the Biological and Toxin Weapons Convention – BTWC), despite being the primary multilateral forum embodying the norm against biological and toxin weapons, was not the first international instrument to tackle the weaponisation of poisons and disease. The potential for the intentional use of such agents for non-peaceful purposes has prompted revulsion throughout human history and efforts to prohibit such activities can be traced back to antiquity. The first instrument to address this issue was the 1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (the Geneva Protocol). This prohibits the use in war of biological and chemical weapons. It does not prohibit their development, production, acquisition, transfer or stockpiling. The absence of international measures proscribing these preparatory steps became more apparent as scientific and technological developments made biological and toxin weapons more feasible.

As man prepared to take his first steps on the moon, States began to consider supplementing the 1925 Geneva Protocol. The first draft of a convention to prohibit activities which would provide a capability to use poisons and disease as a weapon was submitted, by the United Kingdom (UK), to the Eighteen Nation Committee on Disarmament on 6 August 1968. The proposal to develop

a convention to prohibit the research, development, production, transfer, acquisition and stockpiling of biological and toxin weapons garnered support and additional revisions to the original draft text were tabled in July 1969. Progress towards the BTWC received a considerable boost on the 5 August 1971, when the United States of America (USA) and the Soviet Union (USSR) proposed identical versions of a draft convention. After further negotiations, the final draft was presented at the Conference of the Committee on Disarmament on 28 September 1971. The BTWC emerged in its existing form on 16 December 1971, when the text was endorsed by the United Nations (UN) General Assembly (23). The Convention had three Depositaries: the governments of the USA, the UK and the USSR (now the Russian Federation). The BTWC opened for signature on 10 April 1972 and entered into force on 26 March 1975 with 46 States Parties. The numbers of States Parties rose steadily and as of July 2005 the BTWC had 155 States Parties and 16 Signatories.

This work provides a brief overview of the history of this important international instrument, spanning the thirty years since its entry into force in 1975 to the end of the follow-up process in 2005. It focuses, in particular, on those elements of most relevance to the activities of the World Organisation for Animal Health (OIE). The article begins by examining the Convention itself and discussing its key provisions. It then describes the additional understandings of the BTWC which have evolved through a series of five-yearly Review Conferences and outlines the current understanding of the Convention. Efforts to strengthen the BTWC and develop a supplementary legally-binding instrument are also considered. The author then examines the 'Ad Hoc Group of Governmental Experts, open to all States Parties, to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint' (known as VEREX). The successful conclusion of this process prompted States Parties to call a Special Conference in 1994 to discuss further action based upon the findings of the VEREX report. The Special Conference mandated a further set of meetings to translate the scientific and technological findings of VEREX into a workable legally-binding instrument. An Ad Hoc Group of States Parties to the Convention (AHG) was established for this purpose and its activities are reviewed.

Unfortunately, efforts to develop a legally-binding instrument were unsuccessful and the events of 2001 marked a significant change of course for efforts to strengthen the BTWC. The article discusses the events which took place at the Fifth Review Conference, which saw these efforts evolve from the AHG to a new set of annual meetings of experts and States Parties, which have collectively become known as the follow-up process. The meetings, which took place in 2003, 2004 and 2005 are discussed in some depth, providing an overview of the current situation of the BTWC. The history detailed in this paper is then reviewed in order to draw from it some final conclusions.

The prohibition of the development, production, stockpiling and use of biological and toxin weapons

Despite being only four pages long, the BTWC contains a broad spectrum of obligations and prohibitions which bind its States Parties (the key articles are summarised in Table I). The continuing relevance of the BTWC to current

Table I
Key obligations on States Parties and signatories to the Biological and Toxin Weapons Convention (BTWC) (22)

Article	Obligation
Article I	Never in any circumstance to develop, produce, stockpile or otherwise acquire or retain biological and toxin weapons
Article III	Not to transfer biological and toxin weapons to any recipient whatsoever and not in any way to assist, encourage or induce anyone else to acquire them
Article IV	To take any necessary measures to implement nationally the obligations under the BTWC
Article V	To consult bilaterally and multilaterally to solve any problems which might arise with the implementation of the BTWC
Article VI	To request the United Nations Security Council to investigate alleged breaches of the obligations of the BTWC and to cooperate with any such investigation
Article VII	To assist States Parties which have been exposed to a danger as a result of a violation of the BTWC
Article X	To enhance international cooperation for the peaceful use of biology and to implement the BTWC in such a manner as to avoid hampering the peaceful use of such science and technology

events is apparent from the contemporary debate over the need to balance freedom of science with security measures designed to protect humans, animals, plants and the environment. This very concept lies at the heart of the BTWC, with Articles I and III prohibiting activities which would lead to the capability to use biological and toxin weapons, whilst Article X obliges States Parties to enhance international cooperation for the peaceful use of biology and specifies that the Convention is not to be implemented in a manner such as to hamper scientific, technological and economic advancement.

The differentiation between peaceful and prohibited activities is also encapsulated within the definition for biological and toxin weapons used in the Convention – there is an attempt to control intent, as opposed to tangible resources, avenues of research, or specific processes. The BTWC prohibits the application of the biological sciences for hostile or non-peaceful purposes.

In the Convention, biological and toxin weapons are described as:

a) microbial or other biological agents, or toxins, whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes

b) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

This definition has become known as the general-purpose criterion, for its all encompassing, catch-all approach.

Prior to the BTWC's existence States bound by the 1925 Geneva Protocol had the right to research, develop, produce, stockpile and deploy (all of the steps up until the actual use of) biological and toxin weapons. Additionally, States bound by the 1925 Geneva Protocol were only prohibited from using these weapons against other States which had signed the instrument – all of the other States were 'fair game'. Furthermore, a number of States indicated that they would respond in kind with these weapons, even against other States which had signed the protocol, in cases where they had been attacked with them first. Other reservations permitted the use of such weapons against the allies (even if they were parties to the 1925 Geneva Protocol) of a State with which they were at war in cases where the primary enemy had not signed the instrument. This led to a significant erosion of the norm against the use of biological and toxin weapons and in retrospect may have been manifest in the large-scale offensive weapons programmes of a number of States during this period. Fears over the potential use of these weapons, based upon the concept that 'such use would be repugnant to the conscience of mankind' led to a belief 'that no effort should be spared to minimise this risk' (23). The apparent solution was to reduce the chance that these weapons would be used. This was attempted by prohibiting the processes necessary to develop a capability to use them in the first place. In effect, the norm against the use of biological and toxin weapons had expanded to encompass their development or possession. Through the BTWC, States Parties undertake 'never in any circumstances to develop, produce, stockpile or otherwise acquire or retain' biological and toxin weapons. Thus, it is argued, it is impossible to use a weapon that you do not have access to.

The inclusion of the phrase '…whatever their origin or method of production' in the first section of the definition of a biological or toxin weapon has ensured that developments in genetic engineering, genomics, proteomics and molecular biology, which were little more than science fiction in the early 1970s have remained within the remit of the Convention. It embodies the prohibition against the malign use of the biological sciences. Agents produced through recent developments, such as the synthetic chemical generation of live viruses, might, it could have been argued, not have been prohibited under a Convention which only dealt with biological agents of natural origin. This phrase also covers the biochemical manipulation of biologically active compounds, such as toxins, to produce analogues without a natural origin.

The expansion of the prohibition from the use of these weapons in war to encompass 'hostile purposes or in armed conflict' has also proved important. The current security environment where military action more often takes the form of peace keeping, peace enforcement, preventative defensive actions or even regime change (often without a formal declaration of war) has ensured that the prohibitions of the BTWC have remained as valid today as when they were drafted. It has also helped to ensure that the Convention is playing its part in preventing non-State actors from acquiring biological and toxin weapons.

Finally, it is important to note that in contrast with other regimes, such as those relating to nuclear weapons, the BTWC considers delivery devices as a part of a biological and toxin weapon. Thus, even in the absence of an agent, it is prohibited to attempt to acquire a delivery device and conversely, it is also prohibited to possess agents, under certain conditions, even if there is an absence of a delivery device. The focus of this treaty on sub-weapon capability makes it particularly pertinent to those pursuing scientific and technological activities. Even if these actors are not producing a complete weapon, they will still have to consider whether their activities are in compliance with the BTWC. After all, the obligation of ensuring compliance lies with those pursuing legitimate activities and not with an international verification body.

The review conference process: additional understandings of the Convention

The text of the BTWC, as endorsed by the UN General Assembly and as ratified by States Parties remains unchanged but the understanding of its intricacies has developed considerably over the years. The BTWC was never intended to be a static text, to be filed away on a dusty shelf; it is an evolving regime moulded to best fit the changing environments within which it is framed. It is intrinsically tied to the latent capabilities of contemporary science and technology. In order to facilitate this process, the BTWC initiated a series of Review Conferences which were charged with a dual mandate: 'to review the operation of the Convention, with a view to assuring that the purposes of the preamble and the provisions of the Convention… are being realised' and to 'take into account any new scientific and technological developments relevant to the Convention'. Although the text of the BTWC only called for a single Review Conference five years after the entry into force of the Convention, the First Review Conference (1) mandated a second, and the Second Review Conference (2) a third, the Third Review Conference (3) a fourth, the Fourth Review Conference (5) a fifth, and the Fifth Review Conference (9) a sixth, due to take place in 2006 (Table II).

The full texts of the five Final Documents extend to some 853 pages. Of greatest interest to this present work are the Final Declarations found within these documents. These Final Declarations contain an article-by-article review of the Convention which highlights both the contemporaneous views of States Parties as to the functioning of the Convention and any additional understandings they have reached. It should be noted that the Fifth Review Conference adopted a different format and produced no Final Declaration (the output of this Review Conference is considered in more depth later in this article). In this section, particular focus will be placed on seven articles identified as core provisions (see list in Table I). The development of confidence-building measures (CBMs) is also dealt with in the final subsection.

Table II
Dates of the Review Conferences for the Biological and Toxin Weapons Convention

Review Conference	Dates
First Review Conference	3-21 March 1980
Second Review Conference	8-26 September 1986
Third Review Conference	9-27 September 1991
Fourth Review Conference	25 November-6 December 1996
Fifth Review Conference (original session)	19 November-7 December 2001
Fifth Review Conference (resumed session)	11-22 November 2002
Sixth Review Conference	Due to be held in 2006

Article I

The Final Declarations made it clear, through numerous specific references, that the Convention covers biological and toxin weapons against humans, animals and plants – clearly linking its interests with those of the OIE. For example, the Final Declaration of the Fourth Review Conference reaffirmed that 'the Convention prohibits the development, production, stockpiling, or other acquisition or retention of microbial or other biological agents or toxins harmful to plants and animals, as well as humans, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes'.

The Second Review Conference concluded that 'the scope of Article I covers scientific and technological developments relevant to the Convention'. The Second and Fourth Review Conferences expanded upon this and identified a number of scientific fields in which there was a particular potential for activities inconsistent with the BTWC. These included: microbiology, genetic engineering, biotechnology, molecular biology, and genome studies, all of which are connected to some degree with the activities undertaken by the OIE.

Additionally, the Second, Third and Fourth Review Conferences reaffirmed the Convention's coverage of analogues and 'artificially created microbial or other biological agents or toxins whatever their origin or method of production'.

Furthermore, the Third and Fourth Review Conferences expanded upon specific scientific activities which were inconsistent with the purposes of the Convention, most notably, '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'.

Article III

In a continuance of the process to balance the security and developmental aspects of the BTWC, the Second and Fourth Review Conferences noted that the provisions proscribing the transfer of, encouragement or assistance to acquire, prohibited capabilities should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and the provisions of the Convention of scientific knowledge, technology, equipment and materials to States Parties.

The Third and Fourth Review Conferences affirmed that whilst the contracting parties of the BTWC are States, their obligations to enact domestic measures to ensure internal compliance with its aims and provisions effectively covered the activities of non-State actors. Thus, States Parties confirmed that the BTWC not only addressed the issue of bioterrorism, but established the primacy of the Convention in this regard by asserting that it 'is sufficiently comprehensive to cover any recipient whatsoever at international, national or sub-national levels'.

Article IV

In regards to national implementation, in an effort to establish mechanisms through which States Parties were complying with the Convention, the First, Second, and Third Review Conferences invited States Parties to make texts of relevant legislation, regulations and guidelines available to the UN. The Fourth Review Conference indicated that States Parties should, as necessary, review these measures to ensure compliance with the Convention. The Second, Third, and Fourth Review Conferences built upon this initiative by highlighting the utility of certain specific measures including:

– legislative, administrative and other measures designed to enhance domestic compliance with the Convention

– legislation regarding the physical protection of laboratories and facilities to prevent unauthorised access to and removal of microbial or other biological agents, or toxins

– inclusion in textbooks and in medical, scientific and military education programmes of information dealing with the prohibitions and provisions contained in the BTWC and the Geneva Protocol of 1925.

The Fourth Review Conference also highlighted the fact that by prohibiting all the steps necessary to build a biological or toxin weapon, the use of such weapons is effectively prohibited by the Convention.

Article V

The review conference process has seen the development of a procedure for undertaking consultation and cooperation under this article. During the history of the BTWC, this procedure has only been used once, in 1997, and has not been updated since. The most significant mechanism for ensuring consultation and cooperation is a Formal Consultative Meeting, during which efforts are made to resolve 'any problem which may arise in relation to the objective of, or in the application of the provisions of, the BTWC' (3).

Article VI

The collective efforts of the Review Conferences have also added a number of details to the procedure for conducting an investigation, under the BTWC, into alleged breaches of the obligations of the Convention. Mention was also made at the Third and Fourth Review Conferences of an alternative mechanism for investigating the alleged use of biological and toxin weapons, namely UN Security Council resolution 620 of 1988, which encouraged the UN Secretary-General to carry out prompt 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. The Fourth Review Conference expanded upon this point by recalling the technical guidelines and procedures contained in Annex I of UN Document A/44/561 (24), which are designed to guide the UN Secretary-General on the timely and efficient investigation of reports of the possible use of such weapons.

Article VII

To date, no similarly detailed mechanism has been established for providing assistance to States Parties in the case of the alleged use of biological and toxin weapons, or for suspicious outbreaks of disease. Two clarifications were made at the Third and Fourth Review Conferences: firstly, that should a request for assistance be made, that 'it be promptly considered and an appropriate response provided' – and that there was to be a coordinating role in such an event for the UN, with the help of the appropriate intergovernmental organisations, such as the World Health Organization (WHO) (and although not specifically named presumably the OIE); and secondly, States Parties reserved the right to provide emergency assistance prior to a decision from the Security Council, should the need arise.

Article X

This article has the most additional understandings of all the articles included in the Final Declarations. Measures of particular note include:

– requesting States Parties to promote and enhance scientific and technological cooperation, including through the transfer and exchange of information, training of personnel and transfer of materials and equipment on a more systematic and long-term basis

– urging the UN to ensure that all of its means and institutional mechanisms were used to further the implementation of this article

– requesting the promotion of technology transfer, in particularly to developing countries

– stressing the need to ensure that the implementation of the article remains consistent with the aims and provisions of the BTWC

– States Parties providing information on how they are fulfilling their obligations under this article, as well as a subsequent request that all States Parties provide such information to the UN for collation and distribution on an annual basis

– calling for an enhancement to existing institutional means of ensuring multilateral cooperation, in such areas as medicine, public health and agriculture, and urging the UN to include the issue in the agendas of its relevant bodies

– the preparation by the UN of documents containing information and suggestions on the implementation of the article

– the establishment of a world data bank under the supervision of the UN for facilitating the flow of information in the field of genetic engineering, biotechnology and other scientific developments.

In addition, the Fourth Review Conference identified a number of specific activities which States Parties could undertake in respect to this article. These included:

a) transfer and exchange of information concerning research programmes in bio-sciences and greater cooperation in international public health and disease control

b) wider transfer and exchange of information, materials and equipment among States on a systematic and long-term basis, in relevant fields

c) active promotion of contacts between scientists and technical personnel on a reciprocal basis, in relevant fields

d) increased technical cooperation, including training developing countries in the use of bio-sciences and genetic engineering for peaceful purposes through active association with UN institutions, including the International Center for Genetic Engineering and Biotechnology

e) facilitating the conclusion of bilateral, regional and multiregional agreements that provide, on a mutually advantageous, equal and non-discriminatory basis, for their participation in the development and application of biotechnology

f) encouraging the coordination of national and regional programmes and working out, in an appropriate manner, the means of co-operation in this field

g) cooperation in providing information on their national epidemiological surveillance and data-reporting systems, and in providing assistance, on a bilateral level and/or in conjunction with the WHO, Food and Agriculture Organization (FAO) and OIE, regarding epidemiological and epizootical surveillance, with a view to improvements in the identification and timely reporting of significant outbreaks of human and animal diseases

h) the promotion of programmes for the exchange and training of scientists and experts, and the exchange of scientific and technical information in the biological field between developed and developing countries.

Confidence-building measures

Contained mostly within the consideration of Article V in the Final Declarations, there has emerged from the review conference process, a politically-binding mechanism to prevent or reduce the occurrence of ambiguities, doubts and suspicions, in order to improve international cooperation in the field of peaceful biological activities. This mechanism consists of a series of seven confidence-building measures (CBMs) (Table III), each of which requests that States Parties share certain types of information on an annual basis. The relevant details are submitted by States Parties to the UN Department for Disarmament Affairs by 15 April each year and are then distributed to other countries.

Table III
Confidence-building measures for the Biological and Toxin Weapons Convention

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

Of the seven CBMs (A to G), measure B, the 'Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins' may be of the most relevance to the OIE, and is designed to focus on 'all such events that seem to deviate from the normal pattern as regards type, development, place, or time of occurrence'. Some indicators as to what constitutes a deviation from a normal disease pattern are provided in the CBMs. These include:

– when the cause of the outbreak cannot be readily determined or the causative agent is difficult to diagnose

– when the disease may be caused by organisms which meet the criteria for risk groups III or IV, according to the classification in the 1983 WHO Laboratory Biosafety Manual

– when the causative agent is exotic to a given region

– when the disease follows an unusual pattern of development

– when the disease occurs in the vicinity of research centres and laboratories subject to exchange of data under measure A

– when suspicions arise of the possible occurrence of a new disease.

It is interesting to note that although the WHO classification of higher risk pathogens is utilised for human diseases, no similar mention is made of the OIE or the FAO classification mechanisms for plant and animal pathogens. As there is no internationally agreed definition of what would constitute an unusual event, States Parties agreed 'to utilise fully existing national reporting systems on human diseases as well as animal and plant diseases, where possible'. Although specific mention is made to the work of the WHO in relation to human diseases in this measure, no similar details are provided for the OIE.

VEREX and the 1994 Special Conference

Supplementary to the additional understandings discussed above, there have been other, more formal, efforts to strengthen the Convention. As discussed previously, since the early stages of the negotiations to develop the Convention, there have been discussions as to the feasibility and merits of developing a verification mechanism. States Parties reached consensus on the value of assessing the technical feasibility of verification at the Third Review Conference, when it agreed to establish VEREX. VEREX held four meetings during 1992 and 1993, all of which were chaired by Tibor Toth, Hungarian Ambassador to the UN in Geneva, who was to play a central role in efforts to strengthen the BTWC for the next decade.

VEREX identified twelve off-site and nine on-site potential verification measures (Table IV) and the final report evaluated each of these (4). The conclusions reached by VEREX prompted the States Parties to assert that '…from the scientific and technical standpoint… some of the potential verification measures would contribute to strengthening the effectiveness and improve the implementation of the Convention, also recognising that appropriate and effective verification could reinforce the Convention'.

This assertion motivated the majority of States Parties to request the Depositary Governments to take the necessary steps to convene a Special Conference of States Parties to decide upon further action. This Special Conference, 19 to 30 September 1994, was once more chaired by Ambassador Toth, and came to the conclusion that there was indeed scope to strengthen the Convention but that '…the complex nature of the issues pertaining to the strengthening of the BTWC 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'.

To accomplish this task, the Special Conference established the Ad Hoc Group of States Parties to the Convention (AHG), which 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. In this context, the AHG shall, *inter alia*, consider:

– definitions of terms and objective criteria such as lists of bacteriological (biological) agents and toxins, their threshold quantities, as well as equipment and types of activities where relevant for specific measures designed to strengthen the Convention

– the incorporation of existing and further enhanced confidence-building and transparency measures as appropriate into the regime

– a system of measures to promote compliance with the Convention including, as appropriate, measures identified, examined and evaluated in the VEREX Report. Such measures should apply to all relevant facilities and activities, be reliable, cost-effective, non-discriminatory and as non-intrusive as possible, consistent with the effective implementation of the system and should not lead to abuse

– specific measures designed to ensure effective and full implementation of Article X, which also avoid any restrictions incompatible with the obligations undertaken under the Convention, noting that the provisions of the Convention should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the objectives and provisions of the Convention of

scientific knowledge, technology, equipment and materials.'

The Ad Hoc Group of States Parties to the Convention

The AHG interpreted this mandate as an effort to develop a Protocol to strengthen the Convention. By the end of its deliberations, the AHG was developing a nascent regime comprised of a range of elements, including the following:

– legally-binding declarations to replace the CBMs

– detailed national implementation measures to support Article IV of the Convention

– more comprehensive clarification and investigation mechanisms to supplement Articles V and VI of the BTWC

– additional measures for assistance and protection against biological and toxin weapons, developing Article VII of the Convention

– additional developments for Article X of the BTWC in the form of technical cooperation and scientific and technological exchange for peaceful purposes

– an international organisation for implementing, as well as supporting and assisting States Parties in ensuring the efficiency of the Protocol.

During the course of the negotiations, which ran from 4 January 1995 to 17 August 2001, a text for a proposed Protocol was compiled from proposals made by States Parties. This document, entitled 'A Rolling Text of a Protocol to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction' (referred to hereafter as the Rolling Text), was to become the basis of future negotiations and was to be much amended, updated and altered throughout the AHG process. As the Fifth Review Conference drew closer, it became apparent that consensus on the Rolling Text would not be forthcoming. As a result, the Chairman took the step of releasing a 'clean' text of a possible Protocol, 'containing his compromise suggestions on all outstanding issues' (6). This document became known as the Composite (or Chairman's) Text, the contents of which are summarised in Table V. Despite reservations as to the precise content of some of the text, there were indications from a range of States Parties that it would be possible to work with this new text.

At the final session of the AHG, however, it was still not entirely clear that all States Parties had agreed upon the Composite Text as the basis of a future Protocol, with a number of States indicating a preference for continuing efforts with the Rolling Text. With States Parties being encouraged to provide any alterations they wished to see made to the Composite Text in writing, the records show

Table IV
Potential on-site and off-site verification measures identified by the VEREX process to strengthen the Biological and Toxin Weapons Convention

Off-site measures	On-site measures
Information monitoring	Exchange visits
Surveillance of publications	International arrangements
Surveillance of legislation	Continuous monitoring
Data on transfers and transfer requests and on production	By instruments (including ground-based surveillance)
Multilateral information sharing	By personnel
Exchange visits	Inspections
Declarations	Interviewing
Declarations (including notifications, data on transfers and transfer requests and on production)	Visual inspections (including observation and surveillance by aircraft)
	Identification of key equipment
Remote sensing	Auditing
Surveillance by satellite	Sampling and identification
Surveillance by aircraft	Medical examination
Ground-based surveillance	
Inspections	
Sampling and identification	
Observation	
Auditing	

VEREX: Ad hoc Group of Governmental Experts, open to all States Parties, to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint

Table V
Elements of the draft Protocol to the Biological and Toxin Weapons Convention (agreement was not reached among States Parties and the Protocol was not adopted)

Element	Title
Article 7	Measures to strengthen the implementation of Article III of the Convention
Article 8	Consultation, clarification and cooperation
Article 9	Investigations
Article 10	Additional provisions on declarations, visits and investigations
Article 11	Confidentiality provisions
Article 12	Measures to redress a situation and to ensure compliance
Article 13	Assistance and protection against bacteriological (biological) and toxin weapons
Article 14	Scientific and technological exchange for peaceful purposes and technical cooperation
Article 15	Confidence-building measures
Article 16	The organisation
Article 17	National implementation measures

that even those States Parties which were happy to work with it realised there was still some distance to go before a text of a Protocol would exist, a challenge compounded by the mandate which specified that the output of the AHG had to be agreed by consensus – disagreement by a single State Party would be sufficient to prevent the creation of a Protocol.

On 25 July 2001 a State Party, the USA, indicated it would not be able to support the proposed text and added that it could envisage no changes or alterations which would alter this position. This declaration effectively precluded consensus and prevented the AHG from completing its mandate. As the number of outstanding issues on the table (and the still debatable acceptance of the Composite Text as the basis of negotiations) indicates, it is not clear that consensus could have been reached, even if the USA had supported the text. Following the US statement, efforts turned to the report the AHG was due to make to the Fifth Review Conference. During discussions on the content of this report, it was proposed that this document should be based around an unambiguous statement that the AHG had been unable to fulfil its mandate. Disagreements emerged as to whether this statement should specifically name the State Party involved. It proved impossible to resolve this issue during the remaining time and the AHG closed without a final report, marking the end of almost a decade of activities to develop a Protocol for the BTWC (21).

The nascent regime being developed by the AHG (as represented both in the Rolling Text and Chairman's Text), in line with the additional understandings discussed above, was to cover humans, animals and plants. Of particular note regarding animal diseases, was the inclusion within the lists of relevant agents and toxins of a section devoted to animal disease pathogens, including (7):

– African swine fever virus
– African horse sickness virus
– bluetongue virus
– foot and mouth disease virus
– Newcastle disease virus
– rinderpest virus.

It was also asserted that pathogens causing zoonotic diseases appearing in the section on human and zoonotic pathogens should also appear in the section on animal pathogens, and vice versa. Thus the list of animal disease pathogens also included such microbes as *Bacillus anthracis, Brucella* sp., *Burkholderia* sp., monkeypox virus, equine encephalomyelitis viruses (both Venezuelan and Western), *Yersinia pestis* and *Coxiella burnetii*.

The inclusion of animal diseases on this list would have had profound implications had the Protocol entered into force, as it would have necessitated annual declarations of any facility which had produced large quantities of; genetically manipulated; inserted into another organism genetic material from; or aerosolised any of these agents. In addition, annual declarations would also have been required detailing production facilities for animal vaccines. The Protocol organisation would also have been mandated to investigate suspicious outbreaks of disease – those which fell outside expected disease events but for which there was no obvious deliberate origin, as well as alleged attacks with such agents.

The Protocol specifically mentioned the OIE. Had it entered into force, the implementing organisation would have established a formal relationship with the OIE. To date, no formal memorandum of understanding has been developed (mainly due to the institutional shortcomings of the BTWC regime), however, the OIE has a long history of making constructive contributions to the various processes initiated by the Convention (see next section). In addition, the Executive Council of the organisation to support the Protocol, when taking a decision to investigate suspicious outbreaks of disease reserved the right to seek information about these outbreaks from the relevant intergovernmental organisations; the indicative list of which specifically mentions the OIE.

The Fifth Review Conference and the follow-up process

The Fifth Review Conference of the Convention took place in two stages: 19 November to 7 December 2001 and 11 to 22 November 2002. It marked a change of direction in efforts to strengthen its efficiency in preventing the weaponisation of disease. It marked a shift away from the formal Cold-War era arms control treaties towards a more holistic, synergistic approach for the contemporary security environment. This section examines the series of meetings mandated, in 2002, to address specific elements in the period leading up to the Sixth Review Conference in 2006. These meetings became known as the follow-up process.

The Fifth Review Conference

The failure of the AHG to produce a report produced several procedural complications for the Fifth Review Conference and resulted in the emergence of divergent views as how best to proceed with the review of the elements within the Convention under which efforts to strengthen it are pursued. Whilst significant progress was made in other areas, such as the review of relevant scientific and technological developments, it became clear towards the end of the allotted three weeks that no agreement on the outstanding issues would be forthcoming and as a result there was a strong possibility that it would not be possible to adopt a Final Declaration. To facilitate further discussions on the possible outcome of the Review Conference, its President, Ambassador Tibor Toth, suspended the meeting until November 2002.

During the course of numerous bilateral, plurilateral and informal preparatory meetings in anticipation of the resumed Review Conference, it became clear that consensus on the content of a Final Declaration would still not be forthcoming. During this process, there emerged out of necessity a radical proposal for an outcome different in format and substance to those previously adopted. The President eventually tabled a draft decision document at the start of the resumed session (8). This draft, according to analysts, 'was not a document to be discussed, debated, revised and negotiated' (19). With no other alternatives on the table, it was eventually adopted as the substantive outcome of the Fifth Review Conference, but opinions as to its comprehensivity were mixed. The Western Group (WG) (a regional group of States Parties to the BTWC, largely comprised of developed States) issued a statement welcoming its adoption (11). The Group of the Non-Aligned Movement and Other States (NAM) (a regional group largely comprised of developing States) issued a statement to the effect that whilst they had 'gone along with' the decision, they felt it possessed 'limited goals' (10).

The decision, as included in the Final Document of the Fifth Review Conference, mandated a series of annual Meetings of States Parties from 2003 until 2005 (9). It established that each Meeting of States Parties would be of one week's duration and be preceded by a two week Meeting of Experts. Furthermore, the decision stated that these meetings were 'to discuss, and promote common understanding and effective action on' specific topics. The 2003 meetings were to address 'the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation and national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins'. The 2004 meetings were to address '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 and strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants'. The 2005 meetings were to address the sole topic of 'the content, promulgation, and adoption of codes of conduct for scientists'. It was also decided that these meetings would operate on the principle of consensus, that they would prepare factual reports describing their work and that their work would be considered by the Sixth Review Conference.

The 2003 Meetings

It had been established at the Fifth Review Conference that each of the meetings would be chaired in turn by representatives of the Eastern Group, the NAM and the WG respectively, this first set of meetings was chaired by Ambassador Tibor Toth. At the Meeting of Experts, from 18 to 29 August 2003, the topics under discussion were dealt with one after the other – with national implementation being dealt with in the first week and the security and oversight of pathogens and toxins in the second. The Secretariat of the meeting compiled a large quantity of data on the two topics under consideration. This was distributed to States Parties electronically in the form of an Information Repository. The information repository included useful background information, such as the OIE *Terrestrial Animal Health Code, Manual of Diagnostic Tests and Vaccines for Terrestrial Animals, Aquatic Animal Health Code* and *Manual of Diagnostic Tests for Aquatic Animals.*

The two topics under consideration were broken down into a number of issues. Each issue was the focus of a working session. The meeting heard a large number of statements, presentations and contributions on these issues, which were collected and collated by the Secretariat and made available to those participating in the meeting on

a daily basis. The results of the meeting, in the form of these daily collations, were transmitted to the Meeting of States Parties by being annexed to the Report of the meeting (12). The OIE contributed a detailed paper to this meeting, entitled 'The Role of the OIE in the Fight Against Bioterrorism'. This paper laid out the principle missions of the OIE and explained how theses aims related to the topics under discussion. It went on to outline the structure of the OIE and the roles of the various constituent bodies. Finally, the OIE recommended to the meeting that:

– effective planning for responses to an exotic disease incursion should accord wildlife the same degree of attention that is now given solely to domestic livestock

– interdisciplinary and international efforts to increase the surveillance and identification of disease pathogens and to improve mechanisms for interagency and intergovernmental cooperation and collaboration would be necessary to combat the threat of disease agents likely to be used as bioweapons

– national preparedness for the possible incursion of exotic diseases must include the assembly of up-to-date information on the population size, demography and susceptibility of indigenous wild animal species and should include the development of feasible procedures for the early recognition and diagnosis of a disease outbreak, the subsequent prevention of disease transmission between wildlife and domestic livestock and the spread of disease within wild animal populations

– a national consultative network of wildlife expertise should be created and deployed in order to develop a range of techniques that could be used to reduce the risk of the transmission of disease from livestock to wildlife (or vice-versa) in the event of an exotic disease outbreak.

The Meeting of States Parties, 10 to 14 November 2003, was structured slightly differently, as the topic of national implementation was broken down into issues of: 'Incorporation of the Prohibitions Contained in Article I of the Convention, including the Enactment of Penal Legislation; Licensing; and Enforcement'. The security topic was broken down into: 'Biosecurity Evaluation and Implementation of Biosecurity Procedures; Identification and Licensing/ Registration'; and 'Efforts by Relevant International Bodies'. In a similar format to the Meeting of Experts, however, statements, presentations and contributions were collected and collated, made available on a daily basis and were also annexed to the report of the meeting (13). After considering all of these issues, the States Parties agreed upon the value of:

– '…review[ing], and where necessary, enact[ing] or updat[ing] national legal, including regulatory and penal, measures which ensure effective implementation of the prohibition of the Convention, and which enhance effective security of pathogens and toxins.

– The positive effect of cooperation between States Parties with differing legal and constitutional arrangements. States Parties in a position to do so may wish to provide legal and technical assistance to others who request it in framing and/or expanding their own legislation and controls in the areas of national implementation and biosecurity.

– The need for comprehensive and concrete national measures to secure pathogen collections and the control of their use for peaceful purposes. There was a general recognition of the value of biosecurity measures and procedures, which will ensure that such dangerous materials are not accessible to persons who might or could misuse them for purposes contrary to the Convention'.

The 2004 Meetings

The 2004 meetings were chaired by Peter Goosen from South Africa, who was appointed by the NAM. The Meeting of Experts was held from 19 to 30 July 2004, but before it even began, the Chairman 'encourage[d] States Parties to… focus their preparations for the meeting of experts on… what the States Parties can agree to do' (20).

The Secretariat produced three background papers for the meeting covering:

– mechanisms being implemented for disease surveillance by intergovernmental organisations and significant mechanisms being implemented for disease surveillance by non-governmental organisations (NGOs) (15)

– mechanisms being implemented for response to outbreaks of disease by intergovernmental organisations (16)

– mechanisms available to States Parties to investigate the alleged use of biological or toxin weapons and to provide assistance in such cases (14).

Unsurprisingly, the first two papers covering intergovernmental disease surveillance and response mechanisms were developed in close concert with the WHO, the OIE and the FAO, who provided a great deal of the information and were active in ensuring that these papers best represented their activities. In addition to contributing to these papers, all three organisations were active during the meeting: the WHO made a presentation entitled 'Epidemic alert and response', the International Plant Protection Convention (IPPC) presented a paper entitled 'Current mechanisms for pest surveillance, monitoring and outbreak response under the IPPC', the FAO gave a presentation on the 'Emergency prevention system for transboundary animal and plant pests and diseases' and the OIE presented a paper entitled 'The challenge of international biosecurity: the OIE standards and FAO/OIE actions'.

Tasking the Secretariat to develop substantive papers in this manner was one of the new developments that evolved from these meetings. The approach provided delegations with a great deal of descriptive information, designed specifically to facilitate their discussions. The papers proved to be a success and a number of States Parties expressed their appreciation.

In a similar style to that adopted in 2003, the topics were broken down into a number of issues (Table VI) and working sessions were set aside to specifically address them. During these sessions States Parties and invited organisations made presentations and statements on these issues. Other sessions were set aside for general statements, briefings from international organisations (made by the WHO, FAO and OIE), and a discussion of the report of the meeting.

The deliberations of the meeting were summarised in a listing of the considerations, lessons, perspectives, recommendations, conclusions and proposals developed by the Chairman. This document was annexed to the report of the meeting (17). It contained ten recommendations by the WHO, OIE and FAO (Table VII).

The Chairman opted to begin his preparation for the Meeting of States Parties early in the interim period. On 23 September 2004, he wrote to States Parties highlighting seven areas for each of the two topics (i.e. strengthening institutional mechanisms to detect infectious diseases and enhancing capabilities for responding to the alleged use of biological and toxin weapons), under which the statements, proposals and interventions from his list could be grouped.

Table VI
Numbers of statements, presentations and interventions made under different issues considered at the 2004 Meeting of Experts of the Biological and Toxin Weapons Convention

Issue	Number
General surveillance, detection, diagnosis and combating of infectious diseases	15
Surveillance, detection, diagnosis and combating of infectious diseases affecting humans	47
Surveillance, detection, diagnosis and combating of infectious diseases affecting animals	28
Surveillance, detection, diagnosis and combating of infectious diseases affecting plants	9
Outbreak response in/for humans	57
Outbreak response in/for animals	16
Outbreak response in/for plants	5
Investigations	36

In a further letter to States Parties, dated 30 October 2004, the Chairman provided a synthesised version of the lists of statements, proposals and interventions which he stressed '…continue[d] to be based on the presentations, statements, working papers and interventions made by delegations, and does not include any new ideas. All that has been done is to remove repetitions and merge similar concepts'.

This cut the document from 35 pages down to 6. In this document, the two topics were each broken down into the seven areas identified in the Chairman's letter of 23 September 2004. The consideration of each of these areas contained a general paragraph followed by three or four specific actions drawn from the annex to the 'Report of the Meeting of Experts'. This document was successful in prompting discussion during the Meeting of States Parties, 6 to 10 December 2004.

Once again, intergovernmental organisations made valued contributions to the meeting. The FAO presented a paper entitled 'Food and Agriculture Organization of the United Nations', the OIE presented 'The challenge of international biosecurity and the OIE standards and actions', and the WHO presented 'Preparedness for deliberate epidemics – WHO Approach'.

The outcome of the meeting was to provide a number of common understandings, as well as agreeing upon the value of a number of effective actions for the two topics under consideration. In regard to the strengthening and broadening of national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants, the States Parties recognised that:

a) infectious disease outbreaks can be contained and suppressed through early-detection, immediate response and cooperation and support at the national and international level

b) strengthening and broadening national and international mechanisms for the surveillance, detection, diagnosis and combating of infectious disease could support the object and purpose of the Convention

c) the primary responsibility for the surveillance, detection, diagnosis and combating of infectious diseases rests with States Parties, while the WHO, FAO and OIE have global responsibilities, within their mandates, in this regard. The respective structures, planning and activities of States Parties and the WHO, FAO and OIE should be co-ordinated with, and complement, one another

d) scientific and technological developments have the potential to significantly improve disease surveillance and response.

Table VII
Recommendations made by the Food and Agriculture Organization (FAO), World Organisation for Animal Health (OIE) and World Health Organization (WHO) at the 2004 Meeting of Experts of the Biological Weapons Convention

Recommendations
Effective global biosecurity can only be achieved if all OIE and FAO Member Countries conscientiously comply with the standards and guidelines of the OIE, effectively train stakeholders and ensure the availability of adequate human and material veterinary resources
An improvement in the quality and efficiency of Member Countries' Veterinary Services will guarantee vigilance in disease monitoring, surveillance, detection and early warning, and will ensure a timely and rapid response to any emergency
The WHO's surveys of military health programmes should be enhanced for use as potential public health resources
Enhanced harmonisation with other global players is needed (including the World Trade Organization, the United Nations High-Commissioner for Refugees, the International Civil Aviation Organization, the European Union, the Group of 7, Médecins Sans Frontières, the International Federation of the Red Cross and Red Crescent Societies, the International Air Transport Association, the International Maritime Organization, the World Trade Association, the International Federation of Pharmaceutical Manufacturers and Associations, etc.)
Global alert and response operations (are) required
The importance of healthy animals for food production and public health needs to be brought to the attention of relevant ministries and prioritised so that a long term commitment to this public good is achieved
The OIE standards designed to control disease and to prevent the introduction of pathogens should be used as a basis for the harmonisation of legislation
With regard to surveillance and the prompt notification of diseases (including zoonoses) of domestic livestock and wild animals, OIE and FAO Member Countries should comply with OIE guidelines, standards and recommendations and with the principles of the FAO 'Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases'
Many countries share a common concern about the natural occurrence or deliberate misuse of biological pathogens that could affect public health, food and animal production. Existing methods of disease prevention and containment, regulations, international guidelines and standards should be further extended at both national and international levels to improve the ability of countries to prevent, manage and recover from natural, accidental or deliberate introduction of animal diseases. In this regard there are, at present, substantial differences amongst countries in the perception of the national threat from the deliberate use of pathogenic biological agents. These differences should be addressed
The OIE guidelines relating to the biosecurity of laboratories (which are based on expertise provided from researchers in human and animal health) are recommended for the safe management of biological agents used in those laboratories

States Parties consequently agreed on the value of:

a) supporting the existing networks of relevant international organisations for the surveillance, detection, diagnosis and combating of infectious diseases and acting to strengthen the WHO, FAO and OIE programmes, within their mandates, for the continued development and strengthening of, and research into, rapid, effective and reliable activities for the surveillance, detection, diagnosis and combating of infectious diseases, including in cases of emergencies of international concern

b) improving, wherever possible, national and regional disease surveillance capabilities, and, if in a position to do so, assisting and encouraging, with the necessary agreement, other States Parties to do the same

c) working to improve communication on disease surveillance, including with the WHO, FAO and OIE and among States Parties.

In regards to 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, the States Parties recognised that:

a) capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease promote the object and purpose of the Convention

b) the national preparedness of States Parties substantially contributes to 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

c) the Secretary-General's investigation mechanism (set out in a report by the Secretary-General to the 1989 General Assembly [A/44/561] and endorsed the following year by resolution A/Res/45/57 [25]) is an international institutional mechanism for investigating cases of alleged use of biological or toxin weapons.

States Parties consequently 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.

Both the full list of statements, proposals and interventions from the Meeting of Experts and the synthesised list were annexed to the Report of the Meeting of States Parties (18).

The 2005 Meetings

The Chairman for the 2005 meetings, Ambassador John Freeman from the UK, appointed by the WG, wrote to States Parties on 24 March 2005 highlighting that due to the nature of the topic under discussion (codes of conduct for scientists), it would be necessary '…to hear from all those considering the issue of codes of conduct… States Parties; International Organisations; NGOs; and other organisations outside government (be it in academia, industry or science's professional bodies) whose work or interest is relevant, or could be impacted, by our discussions'. To this end, the Chairman invited States Parties to inform him of organisations which were felt to be relevant to their deliberations. In total, the Chairman invited around 50 organisations to participate, 23 of which attended.

The Meeting of Experts, 13 to 24 June 2005, once again benefited from substantive documents prepared by the Secretariat. The meeting included presentations by States Parties, international organisations, and government scientists and expert contributions from universities, donors, industry, research institutions and professional bodies. Following on from the previous years meeting and at the request of the Chairman, the Secretariat collated the considerations, lessons, perspectives, recommendations, conclusions and proposals drawn from the presentations, statements, working papers and interventions. These were annexed to the report of the Meeting of Experts.

The OIE provided a substantive presentation on its relevant activities. This detailed the mission of the OIE and its international relationships, and outlined a variety of its standards in the light of codes of conduct, including: disease reporting; preventing disease transmission through trade; security and biosafety of pathogens; and reference laboratories and collaborating centres. The OIE also provided details of a proposed new initiative entitled 'Technical standards for regulation of biotechnology-derived animals or animal products'.

The Meeting of States Parties will take place in the Palais des Nations in Geneva from 5 to 9 December 2005. Although it is unlikely this meeting will attempt to develop either a framework for, or the content of, a code of conduct, it is hoped that in a format similar to previous years, it will highlight common elements of understanding and the value of future activities on the content, promulgation and adoption of codes of conduct for scientists.

Conclusions

The BTWC dates back to the middle years of the twentieth century; it is the original disarmament treaty banning an entire class of weapons and from the outset was intended to ensure the biological sciences are utilised solely for the benefit of mankind. It expands upon long-standing norms against the weaponisation of disease and embodies the abhorrence felt over the malign use of biological and toxin agents. The Convention encapsulates the long-running debate over the correct balance between scientific freedom and security concerns and has successfully ensured that such a balance has been maintained to date. It relies not only on the continued dedication of States Parties but also on the commitment shown by intergovernmental organisations, specialised agencies, NGOs, industry and the general public. It remains, ultimately an instrument constructed for the benefit of all, designed for the sake of all mankind, to exclude completely the possibility of bacteriological (biological) agents and toxins being used as weapons. It is based upon the conviction that such use would be repugnant to the conscience of mankind and that no effort should be spared to minimise this risk.

The history of the BTWC, as summarised in this work, highlights a number of issues of which we need to be aware and to be able to pass on to others, including that:

– the BTWC prohibits the development, production, stockpiling, acquisition or retention of microbial or other biological agents or toxins harmful to plants and animals, as well as humans, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes

– the provisions of the BTWC regulate intent and do not proscribe specific resources, research, activities or processes

– the terms of the BTWC cover all actors whatsoever at the international, national and sub-national levels

– the obligation of complying with the provisions of the BTWC lies ultimately with the individual

– the CBMs are important as annual declarations facilitating transparency and trust amongst States Parties, especially through the exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins

– there are benefits to ensuring the existence of effective measures to implement the BTWC, to protect laboratories and facilities handling agents or toxins covered by the Convention, and educating health professionals, scientists and the military about the prohibitions and provisions of the 1925 Geneva protocol and the BTWC

– the OIE could play a coordinating role in any response to the alleged use of such agents or toxins or suspicious outbreaks of disease.

It is clear that States Parties must continue to work together to:

– support the efforts of international organisations (including the OIE) in the surveillance, detection, diagnosis and combating of infectious disease

– strengthen WHO, FAO and OIE programmes

– improve, wherever possible, national and regional disease surveillance capabilities

– improve communication on disease surveillance, including communication with the OIE.

The history discussed here illustrates that the objectives and provisions of the BTWC remain as valid today as when they were drafted over thirty years ago. There has been a long and enthusiastic record of efforts to strengthen the Convention. Some of these labours have proven fruitful whilst others have been useful in highlighting alternative paths to development. It is clear that the BTWC underwent a profound conceptual shift in 2001, but the process of metamorphosis is coming to an end; having shed, caterpillar-like, its Cold War history and undergone a lengthy and difficult pupation, it is emerging butterfly-like to address the security concerns of the twenty-first century.

■

La Convention sur l'interdiction des armes biologiques et à toxines

P.D. Millett

Résumé

La Convention sur l'interdiction de la mise au point, de la fabrication et du stockage des armes bactériologiques (biologiques) ou à toxines et sur leur destruction interdit la mise au point, la production, l'achat, le transfert, le stockage et l'utilisation d'agents microbiens ou autres agents biologiques ou toxiniques non justifiés par des visées prophylactiques, protectrices ou toute autre visée pacifique. Elle interdit également les armes, le matériel ou les dispositifs destinés à utiliser ces agents ou toxines à des fins hostiles ou dans le cadre de conflits armés. Elle porte sur les armes biologiques et à base de toxines dirigées contre l'homme, les animaux et les végétaux. L'article brosse un court historique de la Convention et décrit succinctement ses cinq Conférences d'examen, le « Groupe spécial d'experts gouvernementaux, ouvert à tous les États Parties, chargé de définir et d'étudier du point de vue scientifique et technique les mesures de vérification éventuelles » (généralement appelé VEREX), enfin, les activités du groupe spécial visant à élaborer un instrument

juridiquement contraignant pour renforcer la Convention, ainsi que les réunions annuelles des experts et des États Parties qui ont eu lieu ces trois dernières années. Les questions qui présentent un intérêt particulier pour l'Organisation mondiale de la santé animale (OIE) sont soulignées, témoignant de son action prolongée et fructueuse en faveur d'une utilisation de la science vétérinaire au service des intérêts de l'humanité.

Mots-clés
Arme biologique – Bioterrorisme – Désarmement – Intoxication – Loi internationale – Maladie résultant d'un acte délibéré – Nations unies – Non prolifération – Protocole de Genève.

La Convención sobre armas biológicas y toxínicas

P.D. Millett

Resumen
La "Convención sobre la prohibición del desarrollo, la producción y el almacenamiento de armas bacteriológicas (biológicas) y toxínicas y sobre su destrucción" prohíbe concebir, fabricar, adquirir, transferir, almacenar y utilizar agentes microbianos o biológicos en general, así como toxinas, sin que esté justificado por motivos de profilaxis, protección u otros fines pacíficos. También prohíbe las armas, el material o los medios destinados a liberar tales agentes o toxinas con fines hostiles o en el curso de un conflicto armado. Ese instrumento normativo se aplica a todo tipo de armas biológicas o toxínicas contra el ser humano, los animales y los vegetales. Tras repasar brevemente la historia de la Convención y sus cinco conferencias encargadas del examen del texto, el autor describe también el 'Grupo Ad Hoc de expertos gubernamentales, abierto a todos los Estados Partes, para definir y estudiar posibles medidas de verificación desde un punto de vista científico y técnico' (conocido habitualmente como el VEREX) y los esfuerzos de este grupo por elaborar un instrumento jurídicamente vinculante que refuerce la Convención, así como las reuniones anuales de expertos y Estados Partes que se han venido celebrando en los últimos tres años. A lo largo del artículo el autor va indicando los temas que revisten especial interés para la Organización Mundial de Sanidad Animal (OIE) y poniendo de relieve su dilatada y fructífera contribución para intentar que la ciencia veterinaria sea utilizada exclusivamente en beneficio de la humanidad.

Palabras clave
Arma biológica – Bioterrorismo – Derecho internacional – Desarme – Enfermedad de origen intencionado – Envenenamiento – Naciones Unidas – No proliferación – Protocolo de Ginebra.

References

1. Biological and Toxin Weapons Convention (1980). – Final document of the First Review Conference. BWC/CONF.I/10, 3-21 March, Geneva. United Nations, Geneva.

2. Biological and Toxin Weapons Convention (1986). – Final document of the Second Review Conference. BWC/CONF.II/13, 8-26 September, Geneva. United Nations, Geneva.

3. Biological and Toxin Weapons Convention (1991). – Final document of the Third Review Conference. BWC/CONF.III/23, 9-27 September, Geneva. United Nations, Geneva.

4. Biological and Toxin Weapons Convention (1993). – Report of the Ad Hoc Group of governmental experts to identify and examine potential verification measures from a scientific and technical standpoint. BWC/CONF.III/VEREX/9, 13-24 September, Geneva. United Nations, Geneva.

5. Biological and Toxin Weapons Convention (1996). – Final document of the Fourth Review Conference. BWC/CONF.IV/9, 25 November-26 December, Geneva. United Nations, Geneva.

6. Biological and Toxin Weapons Convention (2001). – Procedural report of the 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. BWC/AHG/56-1, 23rd Session, 23 April-11 May, Geneva. United Nations, Geneva.

7. Biological and Toxin Weapons Convention (2001). – Protocol to the Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction. BWC/AHG/CRP.8, 23rd Session, 23 April-11 May, Geneva. United Nations, Geneva.

8. Biological and Toxin Weapons Convention (2002). – Draft decision of the Fifth Review Conference. BWC/CONF.V/CRP.3, 19 November-7 December 2001 and 11-22 November 2002, Geneva. United Nations, Geneva.

9. Biological and Toxin Weapons Convention (2002). – Final document of the Fifth Review Conference. BWC/CONF.V/17, 19 November-7 December 2001 and 11-22 November 2002, Geneva. United Nations, Geneva.

10. Biological and Toxin Weapons Convention (2002). – Statement on behalf of the non-aligned movement and other states. BWC/CONF.V/15, 19 November-7 December 2001 and 11-22 November 2002, Geneva. United Nations, Geneva.

11. Biological and Toxin Weapons Convention (2002). – Statement on behalf of the western European and other group of states. BWC/CONF.V/16, 19 November-7 December 2001 and 11-22 November 2002, Geneva. United Nations, Geneva.

12. Biological and Toxin Weapons Convention (2003). – Report of the meeting of experts. BWC/MSP.2003/MX/4, 18-29 August, Geneva. United Nations, Geneva.

13. Biological and Toxin Weapons Convention (2003). – Report of the meeting of States Parties. BWC/MSP/2003/MX/4, 10-14 November, Geneva. United Nations, Geneva.

14. Biological and Toxin Weapons Convention (2004). – Mechanisms available to States Parties to investigate the alleged use of biological or toxin weapons and to provide assistance in such cases. BWC/MSP/2004/MX/INF.3, 19-30 July, Geneva. United Nations, Geneva.

15. Biological and Toxin Weapons Convention (2004). – Mechanisms being implemented for disease surveillance by intergovernmental organisations (World Health Organization, Food and Agriculture Organization, World Organisation for Animal Health) and significant mechanisms being implemented for disease surveillance by non-governmental organizations. BWC/MSP/2004/MX/INF.1, 19-30 July, Geneva. United Nations, Geneva.

16. Biological and Toxin Weapons Convention (2004). – Mechanisms being implemented for response to outbreaks of disease by intergovernmental organizations (World Health Organization, Food and Agriculture Organization, World Organization for Animal Health). BWC/MSP/2004/MX/INF.2, 19-30 July, Geneva. United Nations, Geneva.

17. Biological and Toxin Weapons Convention (2004). – Report of the meeting of experts. BWC/MSP/2004/MX/3, 19-30 July. United Nations, Geneva.

18. Biological and Toxin Weapons Convention (2004). – Report of the meeting of States Parties. BWC/MSP/2004/3, 6-10 December, Geneva. United Nations, Geneva.

19. Chevrier M. (2002). – Waiting for Godot or saving the show? The BWC Review Conference Reaches Modest Agreement. *Disarm. dipl.*, **68**, December/January.

20. Goosen P. (2004). – Letter to permanent representatives in Geneva 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. United Nations, Geneva.

21. Littlewood J. (2005). – The Biological Weapons Convention: a failed revolution. Ashgate Publishing, Aldershot.

22. Sims N.A. (2001). – The evolution of biological disarmament. SIPRI Chemical and Biological Warfare Studies No. 19. Stockholm International Peace Research Institute /Oxford University Press.

23. United Nations General Assembly (1971). – Convention on the prohibition of the development, production and stockpiling of bacteriological (biological) and toxin weapons and on their destruction. Resolution 2826 (XXVI). United Nations, New York.

24. United Nations General Assembly (1989). – Document A/44/561: General Assembly Forty-forth session, Agenda item 62: Chemical and Bacteriological (Biological) Weapons. Report of the Secretary General. United Nations, New York.

25. United Nations General Assembly (1990). – Chemical and bacteriological (biological) weapons. Resolution A/RES/45/57. United Nations, New York.