

Strengthening the Biological Weapons Convention

Review Conference Paper No 6

Return to Geneva: The United Kingdom Green Paper

June 2002

Series Editors

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by Graham S. Pearson

Introduction

1. The Fifth Review Conference of the Biological and Toxin Weapons Convention opened in Geneva on 19 November 2001 and was adjourned on Friday 7 December until 11 November 2002. The Interim Report¹ records that:

33. At its sixth plenary meeting on 7 December 2001, the Conference decided by consensus to adjourn its proceedings and reconvene at Geneva from 11 to 22 November 2002.

2. The reason for the adjournment was the absence of agreement on how to take forward various proposals to strengthen the Biological and Toxin Weapons Convention regime. Although proposals were made by the European Union, the United States and other States Parties for measures to strengthen the regime there was no agreement as to how best to give further consideration to these proposals. It was also evident that almost all the States Parties continued to support the mandate for the Ad Hoc Group to consider measures *"to strengthen the effectiveness and improve the implementation"* of the Convention whilst, in contrast, the United States had proposed language *"that the Ad Hoc Group and its mandate are hereby terminated...."*

3. It is important that the Fifth Review Conference when it resumes in November 2002 does successfully conclude with a Final Declaration that reaffirms the norms and extended understandings that have been developed during the previous Review Conferences. It is therefore timely that States Parties should, as Nicholas Sims has argued in Review Conference Paper No. 5², be considering now how to achieve a successful outcome from the resumed Fifth Review Conference.

4. The recent launch on 29 April 2002 by the United Kingdom Foreign Secretary of a Green Paper which *"discusses UK priorities and the next steps ahead of the reconvened BTWC Fifth Review Conference and invites comments on the proposals outlined here and on any other ideas for strengthening the Convention"* is therefore to be welcomed as a valuable and timely contribution to the preparations by States Parties for the resumed Fifth Review Conference in November 2002. This paper examines the UK Green Paper and analyses the proposals identified in the paper with particular attention to the five specific areas identified by the UK for immediate action. It is concluded that the proposals included in the UK Green Paper provide a possible basis that could attract consensus support at the resumed Fifth Review

¹United Nations, Fifth 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, *Interim Report*, BWC/CONF.V/12, 14 December 2001. Available at <http://www.opbw.org>

²Nicholas A. Sims, *Return to Geneva: The Next Stage of the BTWC Fifth Review Conference*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 5, April 2002. Available at <http://www.brad.ac.uk/acad/sbtwc>

Conference to form the basis for further consideration at subsequent meetings of the States Parties.

The United Kingdom Green Paper

5. The Green Paper³ entitled "*Strengthening The Biological And Toxin Weapons Convention: Countering The Threat From Biological Weapons*" states that:

6. The objective of this Green Paper is to outline the nature of the threat posed to international security by BW, review the arms control efforts to which the UK has contributed over the last decades to combat this threat, and to describe some possible measures that the UK might pursue to strengthen the BTWC and counter the threat from BW. [Emphasis in original]

It consists of six sections:

- I. *Introduction*
- II. *Key Aspects of the Problem*
- III. *Review of International Arms Control Efforts to Counter the Biological Weapons Threat*
- IV. *The Need for Renewed International Efforts to Counter the Threat and Strengthen the Convention*
- V. *Improvements to Export Controls, Deterrence and Defence Capabilities*
- VI. *The Way Forward*

Each of these is considered in turn.

I. Introduction

6. This section of some eleven paragraphs starts by noting that chemical and biological warfare became possible in the modern era and refers to the casualties from chemical warfare in World War I and, more recently, in the use of chemical weapons by Iraq against Iran as well as to the use of biological warfare by the Imperial Japanese Army in China in the 1930s and 1940s. The introduction accurately makes the point in its first paragraph that "*Every step change in science has opened up new and more terrifying methods of killing and incapacitating; and in turn **made more urgent that these methods be subject to internationally enforceable control.***" [Emphasis added]

7. A subsection sets out the UK's overall response to the CBW section noting that "*arms control is but one element*" in the UK's strategy which is set out as comprising four "*pillars*":

- ***Arms Control.*** The three principal international legally binding instruments are the "*1925 Geneva Protocol,... the 1972 BTWC and the 1993 Chemical Weapons Convention.*"

³United Kingdom, *Strengthening The Biological And Toxin Weapons Convention: Countering The Threat From Biological Weapon*, The Stationery Office, Cm 5484, April 2002. Available at <http://www.fco.gov>

- **Preventing Supply.** Export controls *"intended to prevent the supply of biological agents, chemicals and associated dual-use technologies and equipment which could be used in biological and chemical weapons programmes."*

- **Detering use** by assuring a potential aggressor of three related outcomes: *"CBW use will not be allowed to secure political or military advantage; it will, on the contrary, invite a proportionately serious response; and those at every level responsible for any breach of international law relating to the use of such weapons will be held personally accountable."*

- **Defending against use** through *"possession of an effective range of defensive capabilities (such as detection and identification, warning and reporting, physical protection, hazard management and medical counter-measures and support)."*

8. This concept is closely similar to the somewhat broader web of reassurance that has been advocated over the past decade⁴ for countering the dangers of chemical and biological weapons **both** from States **and** from non-State actors. This web of reassurance comprises:

- **Strong international and national prohibition** reinforcing the norm that chemical and biological weapons are totally prohibited;

- **Broad national and international controls** on handling, storage, use and transfer;

- **Preparedness** including both pre and post release protective measures and response plans that have been exercised; and

- **Determined national and international responses** to any use or threat of use.

The elements in the web of reassurance are mutually reinforcing and together reassure the public that appropriate measures have been adopted and deter the would-be possessor from considering acquisition and use of such weapons.

9. The introduction concludes by stating that the UK Government would welcome views in advance of the resumed Fifth Review Conference on 11 November 2002 on the potential measures identified by the UK, other States Parties to the BTWC and academics, itemized later in the Green Paper that might be pursued in subsequent international discussions.

II. Key Aspects of the Problem

10. Subsections address: offensive BW programmes – lessons from recent history; the terrorist threat; the potential for offensive use of microorganisms and toxins: an increasing problem; the advance of technology; and the “dual-use” problem.

11. In the first subsection it is stated that the lessons from recent history are unambiguous using both the former Soviet Union and Iraq offensive biological weapons as examples where major clandestine programmes were concealed both within government and ostensibly civil and academic facilities such as vaccine and other pharmaceutical plants. It is noted that such misuse of “dual-use” knowledge, facilities and technologies remains a risk.

⁴Graham S. Pearson, *Prospects for Chemical and Biological Arms Control: The Web of Deterrence*, The Washington Quarterly, Spring 1993, pp 145–162.

12. In regard to the continuing fact that many countries of concern have chemical and biological capabilities, the Green Paper correctly emphasizes that:

Compliance with the BTWC is an issue the international community cannot avoid; if the Convention is to remain credible, there needs to be concerted determination to deal with the problem of noncompliance in an effective and sustainable manner. The UK and other BTWC States Parties cannot shirk their responsibilities on this matter.

It follows that to do nothing is not a credible option. States Parties who express concern about the compliance of other States Parties to the Biological and Toxin Weapons Convention and **name** these States Parties should, **at the very least**, utilize the procedures elaborated at the Review Conferences for addressing such concerns.

13. The subsection on the terrorist threat in its single paragraph points out that the threat is no longer theoretical. Somewhat surprisingly, it does not, however, point out that the provisions of the BTWC – notably those of Article III relating to transfers and of Article IV relating to national implementation – have a significant contribution to make in countering the terrorist threat. Nor is there mention here, although there is later in the Green Paper, of the UK's new anti-terrorist legislation, "*The Anti-Terrorism, Crime and Security Act 2001*"⁵, which makes provisions to prevent the unauthorised acquisition of pathogens and toxins.

14. The next subsection on the potential for the offensive use of microorganisms and toxins; an increasing problem rightly points out that "classical" BW agents – microorganisms with well known properties – are the likely choice for a country starting to develop BW and points out that the risks and comparative ease of production of classical BW agents such as anthrax, plague and botulinum toxin must not be overlooked. It also goes on to point out that "*it may be possible*" to use the techniques of genetic modification "*to enhance properties such as survival, resistance to antibiotics, and ability to overcome particular prophylaxis or detection methods.*"

15. The next subsection on the advance of technology points out that "*the global spread of knowledge in science and technology has also increased the potential for state or non-state actors in a widening range of countries to attempt to produce and disseminate pathogens or toxins as weapons.*" but it correctly goes on to point out that "*the development of a sophisticated BW capability using genetic modification techniques requires a high level of expertise, experience and equipment – a level which has been attained by few countries.*" and concludes rightly that "*In practice, the deliberate release of "classical agents", possibly with some features enhanced by genetic modification, currently remains a more likely threat than novel agents or novel concepts of agent/host interaction.*"

16. The final subsection on the dual use problem notes that "*the dual-use nature of virtually all the know-how, materials and equipment used in biology means that identifying and agreeing workable and acceptable verification and compliance measures for biological arms control is fraught with formidable intellectual, scientific and political problems.*" and then goes on to conclude that "*Identifying and agreeing effective measures to strengthen the BTWC remains therefore one of the most demanding tasks in arms control and nonproliferation.*" No mention is made here of the parallel to the dual-use problem that is

⁵United Kingdom, *The Anti-Terrorism, Crime and Security Act 2001*. Available at <http://www.legislation.hmso.gov.uk/acts/acts2001/20010024.htm>

also central to the chemical weapons regime particularly in regard to the effective implementation of the general purpose criterion. A valid argument can be made that dual use materials underpin many areas of health and security -- narcotic drugs and psychotropic substances as well as chemicals and biological materials are all dual use materials and demand monitoring and control regimes to build confidence between States that such materials are not being misused.

III. Review of International Arms Control Efforts to Counter the Biological Weapons Threat

17. This section has subsections on *"The Biological and Toxin Weapons Convention; Efforts to strengthen the Convention; Confidence Building Measures (CBMs); Ad Hoc Group of Governmental Experts to identify and examine potential verification measures from a Scientific and Technical standpoint (VEREX); Work of the Ad Hoc Group (AHG); The "Composite text" (the Protocol); The "Composite text": contents; The Composite Text: UK Views; Reactions to the Composite Text"*; and the *"Fifth Review Conference."*

18. The first subsection outlines the process leading to the BTWC and records its present status -- although interestingly this shows 18 Signatories rather than the current 17 Signatories following the recent ratification of Morocco. It notes that the Review Conferences have also examined new scientific and technological developments relevant to the Convention which is a somewhat weak description of the requirement in Article XII of the Convention that such Review Conferences are *"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 realized."* and that *"Such review shall take into account any new scientific and technological developments relevant to the Convention."* which makes it clear that the consideration of relevant new scientific and technological developments is a key part of the review of the operation of the Convention.

19. The second subsection addresses the procedures developed at the Second and Third Review Conferences for a Consultative Meeting of States Parties to review and consider cases of non-compliance and notes that this procedure has been used only once by Cuba in 1997. The subsection does not make the point that this procedure could with advantage be invoked by the United States in respect of its declared concerns about compliance by other States Parties and thereby demonstrating that the United States has taken all possible steps under the Convention to resolve its concerns about non-compliance.

20. The third subsection addresses the confidence building measures (CBMs) agreed at the Second Review Conference and extended at the Third Review Conference. The Green Paper rightly points out that these CBMs are politically but not legally binding and that this has had an adverse effect on their success. It accurately summarises the situation by saying that *"since the first annual returns in 1987 the overall rate of response has been disappointing, both in quantitative and qualitative terms. Many have been incomplete or inaccurate."*

21. The fourth subsection addresses VEREX. Somewhat surprisingly it fails to mention that VEREX also gave some consideration to measures in combination and in its final report⁶ noted that *"Some measures in combination may enhance the capabilities and/or reduce the limitations of the individual measures."* as a system of measures in combination foreshadowed the subsequent work of the Ad Hoc Group (AHG).

⁶United Nations, *Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint*, Report BWC/CONF.III/VEREX/9, Geneva 1993.

22. The fifth subsection addresses the work of the Ad Hoc Group with the subsequent subsections addressing the composite Protocol text. The Green Paper notes that the UK delegation submitted 43 formal working papers to the Ad Hoc Group -- and, in so doing, was second only to South Africa in regard to the numbers of working papers submitted by States Parties. The point is rightly made in regard to the composite Protocol text presented on 30 March 2001 that *"Most of the text had already been seen as acceptable by delegations in earlier sessions."* The subsection on UK views on the composite Protocol text states that *"Overall the UK judged that the Chairman's draft Protocol's provisions, although not as extensive in some areas as we would have wished, nonetheless represented a substantive improvement on the status quo represented by the Convention."* It goes on to say that *"the Protocol would have delivered significant benefits for transparency, monitoring and deterrence in key dual-use areas capable of misuse. It would have provided a much more effective investigation mechanism than that available under the Convention's Article VI and the existing United Nations Secretary General system for dealing with cases of alleged use of CBW."*

23. It then makes it clear that the UK judged that the safeguards in the Protocol's on-site provisions provided *"effective protection for legitimate activities and for national security and commercial proprietary information."* noting that role play practice inspections had been carried out at four industrial facilities in the UK. Furthermore, it notes that a separate and continuing series of practice challenge inspections at military facilities in connection with the Chemical Weapons Convention *"also helped, and helps to give us confidence that national security information can be protected even at the most sensitive of establishments."*

24. In respect of declarations it was noted that *"The declarations and associated declaration formats of the draft Protocol would have required States Parties to submit detailed information on a range of particularly relevant facilities capable of misuse for BW purposes. Provision of such information, in the UK view, would help to build confidence over time that declared activities are as they are claimed."* The benefits from visits to declared facilities and the declaration clarification procedures are identified and the investigation package was judged to have been robust enough to provide a level of deterrence and improve the ability to investigate non-compliance concerns.

25. It is concluded that *"Overall therefore it was the UK view that implementation of the draft Protocol would represent a net gain."* and that *"Our judgement was that its package of compliance measures would represent an effective strengthening of the Convention."*

26. The next subsection addresses reactions to the composite Protocol text noting that *"When the composite text was debated in detail at the 24th AHG session in July 2001, some fifty States Parties indicated that, on balance, they were prepared to accept the text or see it as a basis for the final compromise."* This needs to be considered in the context that only some 55 States Parties or so participated in the sessions of the Ad Hoc Group and consequently the support by some 50 States Parties for the composite Protocol text indicated that it attracted very wide support.

27. The inability of the United States to accept the text is addressed on one paragraph (41). The Green Paper then goes on to note that in reaching such judgements on the composite Protocol text, *"a great deal depends on what one sets as the objectives for the Protocol and how one evaluates risks. If the objective is on greater levels of transparency, better tools for tackling non-compliance and focussed scientific and technological co-operation measures,*

then a useful role can be demonstrated for the draft Protocol as an adjunct to other measures."

28. This subsection concludes by noting that *"there was a widespread view amongst delegations at the 24th AHG session that, without US participation, it was not worth pursuing a Protocol."* It is not, however, apparent how much consideration was given to pursuing a Protocol in the expectation that over time the US might decide to participate as it was clear that with a requirement for 65 States to ratify the Protocol before it entered into force that this was likely to take at least 4 years. It is also far from clear to what extent the States Parties engaged in the 24th session of the Ad Hoc Group had addressed a contingency plan as to what to do in the event of the US declining to support the composite Protocol.

29. The final subsection addresses the Fifth Review Conference noting that the United States *"had undertaken to develop new ideas for presentation to the Fifth Review Conference"* and that the European Union also developed proposals for presentation at the Review Conference.

30. Somewhat surprisingly, this subsection makes no allusion to or mention of other proposals made to the Fifth Review Conference. In particular, South Africa made specific proposals⁷ for amendments to the existing CBMs "A" -- the declaration of maximum containment facilities -- and CBM "G" -- the declaration of vaccine production facilities -- extending coverage to animal and plant pathogen facilities as well as for a new CBM "H" for declaration of plant inoculant and biocontrol agent production facilities. New Zealand made proposals⁸ that the Review Conference should establish an enhanced process of accountability through annual meetings of States Parties and identify other means by which we might work further on compliance options, including the possibility of subsidiary bodies or an Oversight Committee. Japan⁹ proposed that the States Parties should meet frequently during the intersessional period and supported the idea of a strong follow-up mechanism in whatever format ... or an annual meeting of the States Parties. Both South Africa¹⁰ and Brazil¹¹ noted that Article 14 of the draft Protocol contained provisions that could guide States Parties in future actions regarding the full operation of Article X whilst Pakistan¹² stressed the importance of full implementation of Article X. China¹³ said that *"the*

⁷South Africa, *Strengthening Confidence-Building Measures*, BWC/CONF.V/COW/WP.1, 16 November 2001. Available at <http://www.opbw.org>

⁸Clive Pearson, *Statement by the New Zealand Ambassador for Disarmament Mr Clive Pearson before the Review Conference of States Parties to the Biological Weapons Convention*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

⁹Toshio Sano, *Statement by Mr. Toshio Sano, Representative of the Delegation of Japan at the Fifth Review Conference 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*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹⁰Peter Goosen, *Statement by Peter Goosen, Chief Director: Peace and Security, Department of Foreign Affairs, Pretoria*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹¹Celina M. Assumpcao de Valle Pereira, *Statement Ambassador Celina M. Assumpcao de Valle Pereira, Fifth Review Conference 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*, Geneva, 19 November to 7 December 2001. Available at <http://www.opbw.org>

¹²Abdul Basit, *Statement by Mr. Abdul Basit, Acting Permanent Representative at the Fifth Review Conference 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*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹³China, *Statement by Ambassador Sha Zukang Head of Chinese Delegation at the 5th Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of*

enhancement of international cooperation is the only way to effectively meet the challenges of global security and to realize comprehensive and lasting security." The omission from the Green Paper of a specific measure addressing *"technical assistance and technical cooperation"* is surprising as this was identified by the EU in its statement¹⁴ as being one of the measures that will need to be detailed further in work after the Review Conference. It is, however, noted in the Green Paper in the context of investigations into non-compliance that a free-standing agreement on such investigations would not be easily negotiated *"unless it also contained some scientific and technological assistance elements."* Canada¹⁵ proposed a regular forum that would at least provide an annual opportunity for States Parties to convene, with oversight supplemented by scientific and legal expert study groups, as appropriate. India¹⁶ proposed that transfer of dual-use materials for medical, diagnostic and treatment purposes should be regulated on the basis of guidelines to be negotiated and accepted by all States Parties and that these guidelines should prohibit transfer transfers to non-State actors. Norway¹⁷ proposed that there was a clear need to strengthen the support functions of the Convention with the aim of ensuring more regular meetings of the States Parties and other intersessional work. Norway also supported the proposal to include terrorism and public health in a future legally binding mechanism. This additional list of proposals could thus be summarised as follows:

Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹⁴Belgium, *Statement by Belgium on behalf of the European Union*, 19 November 2001. Available at <http://www.opbw.org>

¹⁵Christopher Westdal, *Statement by His Excellency Christopher Westdal, Ambassador and Permanent Representative to the Conference on Disarmament, The Fifth Review Conference 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*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹⁶Rakesh Sood, *Statement by Ambassador Rakesh Sood, Head of Delegation to the Fifth Review Conference 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*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

¹⁷Sverre Bergh Johansen, *Statement by H.E. Sverre Bergh Johansen, Ambassador, Permanent Representative of Norway to the United Nations Office in Geneva*, Geneva, 20 November 2001. Available at <http://www.opbw.org>

Proposed Measure	State Party
Specific extensions to CBMs A & G and new CBM H	South Africa
Enhanced accountability through annual meetings	New Zealand
Regular annual meetings of subsidiary bodies and/or an Oversight Committee	Canada Japan New Zealand Norway
Article X implementation	Brazil China EU Pakistan South Africa
Guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors	India
Inclusion of terrorism and public health in a future legally-binding mechanism	Norway

There would have been benefit in the Green Paper in referring, at least in general terms, to the other proposals made by several other States Parties at the Fifth Review Conference rather than limiting reference in this subsection to the US and EU proposals.

31. In addition, this subsection makes no allusion to the fact that the UN Secretary-General and a number of other States Parties in their statements¹⁸ made in the General Debate of the Fifth Review Conference spoke in support of proposals that are essentially similar to those put forward by the US and the EU. These included the following:

¹⁸These statements are available at <http://www.opbw.org>

Supported Measure	State Party
National legislation needs to be tightened	UN S-G
Acquisition or use of biological weapons needs to be criminalized	UN S-G
Provision of assistance should prevention fail	UN S-G
Strengthen existing international disease control and response	Japan
Universality needs to be encouraged	Canada Iran New Zealand Norway Pakistan Russia Switzerland
Enhanced confidence-building measures	New Zealand
Effective compliance machinery to make it much harder to cheat	New Zealand
Strengthened legally-binding confidence-building measures	Canada
Timely and complete submission of confidence-building measures	Russia
International cooperation in the provision of assistance	India Ukraine
Institutional arrangements to combat bioterrorism	Ukraine
Strengthened moral and legal norms	India
Enhanced national controls on dangerous pathogens	India
Withdrawal of Geneva Protocol reservations	Mexico
An international legal instrument to criminalize activities prohibited by the Convention	Switzerland

There would have been benefit in the Green Paper alluding, at least in general terms, to the fact that similar proposals to several proposed by the US and the EU were also proposed by other States Parties in their statements in the General Debate of the Fifth Review Conference. Furthermore, it is evident that if the proposals put forward by individual States Parties in Working Papers to the Committee of the Whole are examined then there is further clear evidence of support for many of the proposals listed in the Green Paper from other States Parties. Thus, for example, China in its proposal¹⁹ for language for the Article IV section of the Final Declaration included the following *"The Conference notes that some States Parties have put forward new viewpoints and proposals on the strengthening of domestic legislation and considers that those viewpoints and proposals merit further exploration and research."* and in its language²⁰ for the Article V section included: *"The Conference notes that at the present Review Conference some States parties have put forward new ideas and proposals concerning the question of confidence-building measures; it regards those proposals as constructive and meriting further research and exploration."* China was thus supportive of the proposals for strengthened national legislation and for improved confidence-building measures.

IV. The Need for Renewed International Efforts to Counter the Threat and Strengthen the Convention

¹⁹China, *Article IV Working paper submitted by China*, BWC/CONF.V/COW/WP.4, 23 November 2001. Available at <http://www.opbw.org>

²⁰China, *Article IV Working paper submitted by China*, BWC/CONF.V/COW/WP.5, 23 November 2001. Available at <http://www.opbw.org>

32. This section has two subsections: the first on why international co-operative efforts remain important and the second on identification of possible international and national measures.

33. The first subsection notes that the consequences of violations of the BTWC could be worldwide and rightly points out that *"Global problems ideally require global cooperative solutions; individual efforts taken at a national level, although useful and, in some cases, essential, can have a truly global impact only if they are implemented by states in concert and to a uniform standard."* It goes on in a key paragraph to stress that:

The United Kingdom believes that the international community still needs to tackle the issue collectively and that we must continue where possible and appropriate to seek measures that can be agreed and implemented on the widest international basis, with the objective of including both all States Parties to the BTWC and those states that have not yet joined the Convention. We need to develop collectively the tools to identify and expose non-compliance with the Convention. We also need to impose the will of the international community on cheats and proliferators. The fact that we have concerns that the Convention is being flouted is a reason for redoubling our efforts, not abandoning them. In an imperfect world, we can never expect complete assurance, and international agreements should never be allowed to create a false sense of security. But we must always strive to sustain an international society based on the rule of law.

34. The next subsection identifies possible international and national measures which could be deployed to strengthen the Convention that have been identified by the *"UK, our EU partners, the US and academics in a number of countries"*. As noted above, the omission of other measures identified by other States Parties at the Fifth Review Conference is to be regretted as it diminishes somewhat the value of the Green Paper in providing a listing of potential measures that could be expected to attract wide support as forming the basis for further consideration. Likewise, the absence of any mention that a number of other States Parties had proposed similar measures is to be regretted as this indicates that there is actually a wider constituency of support for the measures listed in the Green Paper. The subsection then continues by considering in turn each of the identified measures.

35. (a) ***investigations into suspected non-compliance with the Convention (alleged use of BW, misuse of facilities and suspicious outbreaks of disease)***. The Green Paper notes that these could *"take the form of an expanded and revised version of the existing UN Secretary-General process for investigating alleged CBW use or be included in either a free-standing or combined international agreement that covered other topics such as assistance in the event or threat of BW attack."*[Emphasis added] It rightly points out that *"it is unlikely that a free standing agreement would be easily negotiable unless it also contained some scientific and technological assistance elements."* which is undoubtedly true. Whilst investigations into suspected non-compliance are indeed a key measure to strengthen the Convention -- and the Green Paper rightly includes misuse of facilities as well as alleged use and suspicious outbreaks -- it is unrealistic to expect States Parties to agree to an extension of the existing UN Secretary-General process in respect of both the scope -- to misused facilities -- and the circumstances -- to include cases where the State Party where the investigation would take place has withheld its consent. Given the background of the Ad Hoc Group negotiations -- which have elaborated in exhaustive detail procedures for both facility and field investigations -- the viable option would appear to be the negotiation of an international

agreement which should include other elements including scientific and technological assistance as indicated in the Green Paper..

36. (b) ***assistance in the event of, or threat of, use of BW.*** The Green Paper notes that "*States Parties could reiterate and reemphasise their existing obligation under the BTWC to provide various kinds of assistance in the event of a BW attack, or serious threat of attack, by any State or non-State actor against a State Party.*" At the Fourth Review Conference the Article VII section of the Final Declaration included the following language:

2. The Conference reaffirms the undertaking made by each State Party to provide or support assistance in accordance with the Charter of the United Nations to any Party to the Convention which so requests, if the Security Council decides that such Party has been exposed to danger as a result of violation of the Convention.

3. The Conference takes note of desires expressed that, should a request for assistance be made, it be promptly considered and an appropriate response provided. In this context, pending consideration of a decision by the Security Council, timely emergency assistance could be provided by States Parties if requested.

4. The Conference takes note of the proposal that the Ad Hoc Group might need to discuss the detailed procedure for assistance in order to ensure that timely emergency assistance would be provided by States Parties if requested.

5. The Conference considers that in the event that this Article might be invoked, the United Nations, with the help of appropriate intergovernmental organizations such as the World Health Organization (WHO), could play a coordinating role.

Whilst, as the Green Paper states, it is undoubtedly true that the States Parties could reaffirm and reemphasize their existing obligation under the Convention, the effective provision of such assistance could be greatly promoted by the creation of a small secretariat which would collate offers of assistance from States Parties and serve as a focal point to facilitate their provision in the event of attack or serious threat of attack against a State Party.

37. (c) ***national criminal legislation and extradition.*** This proposal needs to be assisted by including the collation and analysis by a small secretariat of the national criminal legislation enacted by States Parties. The experience with the Chemical Weapons Convention (CWC) in which the Secretariat of the OPCW has carried out such a collation and analysis of the legislation enacted by the States Parties to implement the CWC has clearly demonstrated the value of such a collation and analysis as an encouragement to all States Parties to not only implement their legislation but also to ensure that it is effective. There is likewise value in the small secretariat providing model legislation to assist States Parties.

38. (d) ***a Scientific Advisory Panel.*** This proposal is that "*an open ended body of government and non-government scientists should meet every one or two years to review the changes*" in the life sciences "*and assess their implications for the Convention and measures being taken to strengthen it.*" The proposed inclusion of the participation of non-government scientists is welcomed although it has to be doubted whether States Parties would agree to a truly open-ended body of non-government scientists assessing the implications of the changes in life sciences for the Convention and measures being taken to strengthen it. The statement in the Green Paper that "*The accelerating pace of scientific developments now makes it quite unsafe only to have five yearly technology reviews by the States Parties to support the five*

yearly Review Conferences." is much stronger than the language in the background paper²¹ on new scientific and technological developments submitted by the UK to the Fifth Review Conference which simply said that "Given the accelerating pace in science and technology, the UK wonders whether it is prudent to maintain a five year gap between such assessments under the BTWC." Both the Green Paper and the UK background paper fail to address the key issue -- which is how to ensure that all relevant scientific and technological developments as they occur are covered through the general purpose criterion of the prohibition of the BTWC. This is normally achieved through the reaffirmations in the Article I section of the Final Declarations agreed by Review Conferences which have, as in the language of the Fourth Review Conference Final Declaration, reaffirmed that all such developments are covered:

6. The Conference, conscious of apprehensions arising from relevant scientific and technological developments, inter alia, in the fields of microbiology, biotechnology, molecular biology, genetic engineering, and any applications resulting from genome studies, and the possibilities of their use for purposes inconsistent with the objectives and the provisions of the Convention, reaffirms that the undertaking given by the States Parties in Article I applies to all such developments.

Provision needs to be made for a similar reaffirmation to be agreed by States Parties following the meetings of the proposed Scientific Advisory Panel. Meetings without any follow through to a reaffirmation by the States Parties would not be effective.

39. This proposal for a Scientific Advisory Panel was made in the proposals²² submitted by the EU at the Fifth Review Conference for language to be incorporated into the Article I section of the Final Declaration. However, the absence in the European Union proposals of any language regarding the apprehensions arising from relevant scientific and technological developments is surprising given that the United States proposal²³ in this regard was for identical language to that agreed at the Fourth Review Conference in 1996 as the use of identical language hardly suggests, as the Green Paper does, that "The accelerating pace of scientific developments now makes it quite unsafe only to have five yearly technology reviews by the States Parties..." The University of Bradford "Key Points for the Fifth Review Conference"²⁴ in regard to Article I had recommended that:

"Three particular issues should be considered important enough to be addressed through the addition of new language. *First*, it is clear that the scientific and technological developments that could be of concern apply to **animals and plants as well as to human beings**. *Second*, as the genomics revolution is impacting on **all** aspects of biology and medicine, the process of adding discrete new topics that are

²¹United Nations, *Background Paper on New Scientific and Technological Developments Relevant to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, BWC/CONF.V/4/Add.1, 26 October 2001. Available at <http://www.opbw.org>.

²²European Union, *Proposals Working Paper submitted by the European Union*, BWC/CONF.V/COW/WP.23, 27 November 2001. Available at <http://www.opbw.org>

²³United States, *Proposals Working Paper submitted by the United States*, BWC/CONF.V/COW/WP.17, 26 November 2001. Available at <http://www.opbw.org>

²⁴Malcolm R. Dando & Simon M. Whitby, *Article I: Scope* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

causing apprehension could be misleading. It would be clearer and better to use language making it clear that developments throughout the **whole** of the life sciences could potentially be of concern. This could then be complemented with an explanatory sentence mentioning some of the specific recent areas in which significant advances have occurred along the lines of "*Consequently, genomics, proteomics and bioinformatics are covered.*" These first two issues could be addressed by amending the sixth paragraph from the Fourth Review Conference so that it reads:

*6. The Conference, conscious of apprehensions arising from relevant scientific and technological developments, inter alia, **in the life sciences in animals and plants as well as in humans**, and the possibilities of their use for purposes inconsistent with the objectives and the provisions of the Convention, reaffirms that the undertakings given by the States Parties in Article I applies to all such developments. Consequently, genomics, proteomics and bioinformatics are covered."*

It is considered that the proposed additions highlighted above would make it clear that humans, animals and plants were all protected by the prohibition and remove any uncertainty as to the relative importance of different aspects of the life sciences for the prohibition.

40. (e) revised CBMs. The Green Paper proposes that "*the existing set of CBMs could be revisited to see whether there is room for improving their scope or level of detail to ensure more useful annual returns by States Parties.*" This is an area where specific consideration should have been included in the Green Paper in regard to the South African proposals which were set out in a Working Paper submitted to the Fifth Review Conference. The South African proposals put forward useful specific language to amend the modalities of CBM "A" -- the declaration of maximum containment facilities -- and CBM "G" -- the declaration of vaccine production facilities -- so as to include animal and plant pathogen facilities as well as human pathogen facilities and also propose a new CBM "H" requiring the declaration of plant inoculant and biocontrol agent production facilities. It is evident from the UK background paper on new scientific and technological developments of relevance to the Convention submitted to the Fifth Review Conference that the UK is indeed concerned about animal and plant disease as well as pest control in agriculture -- and could therefore be expected to be supportive of the South African proposals.

41. The ideas mentioned in the Green Paper such as inclusion of an annex on the level of information exchanged voluntarily between states as well as possible voluntary visits between States Parties to facilities notified under the CBMs are also worthy of consideration. What is also needed to make any real progress is a small secretariat to collate and translate the CBMs returns and to issue these to all States Parties. Such a collation could usefully include regional comparative tabulations such as that for the EU circulated by the University of Bradford during the Fifth Review Conference and reproduced here for information:

EU COMPLIANCE WITH CBMs
(based on information contained in BWC/CONF.V/2, V/2/Corr.1, V/2/Corr.2 & V/2/Corr.3)

Country	1997	1998	1999	2000	2001
Austria	√	√	√	√	√
Belgium	Patchy	?	Patchy	Patchy	Patchy
Denmark	√	?	?	?	?
Finland	√	√	√	√	√
France	√	√	√	√	√
Germany	√	√	√	√	√
Greece	?	?	?	?	?
Ireland	√	?	?	?	?
Italy	√	√	√	√	√
Luxembourg	√	√	?	?	?
Netherlands	√	√	√	√	√
Portugal	?	?	?	?	?
Spain	√	√	√	√	√
Sweden	√	√	√	√	√
United Kingdom	√	√	√	√	?

There would be immense benefits from States Parties also agreeing that this small secretariat and any individual State Party could seek clarification from other States Parties of the information submitted in their CBM returns. Together, these two measures could transform the effectiveness of the CBMs.

42. It is interesting that Green Paper omits reference to two other aspects relating to revised CBMs which were made at the Fifth Review Conference in November 2001. First, the statement²⁵ made by the UK included "*A consultation process might be established whereby States Parties could engage in a dialogue on the annual returns submitted by others.*" and also noted that "*Making some of the existing measures mandatory might also be worth considering.*" The latter was a point also made by the EU in their statement²⁶ that "*the EU proposes that some of these confidence-building measures be made legally binding.*"

43. (f) ***a new Convention on Physical Protection of dangerous pathogens.*** This section actually addresses two proposals -- one is the idea of a new Convention whilst the other is the importance of tighter national controls. These both merit attention and tighter national controls should be addressed in its own right and not subsumed under the proposed new Convention. Tighter national controls will be addressed in its own right in this paper.

44. Insofar as **a new Convention** is concerned, the Green Paper says that "*there may be scope for exploring the feasibility and desirability of a new international agreement that*

²⁵David Broucher, *Statement by Ambassador David Broucher Permanent Representative of the United Kingdom to the Fifth Review Conference*, Geneva, 20 November 2001. Available at <http://www.opbw.org>

²⁶Belgium, *Statement by Belgium on behalf of the European Union*, 19 November 2001. Available at <http://www.opbw.org>

would set standards for physical protection, containment measures and operating procedures for dangerous pathogens held or worked upon in academic, government, industrial or research laboratories. The containment of genetic modification involving pathogens or genes coding for toxins should also be addressed." Even though the UK background paper on new scientific and technological developments relevant to the Convention submitted to the Fifth Review Conference makes it clear in a section entitled "*International cooperation and biosafety: activities under the Biodiversity Convention*" that the UK is well aware of both the Convention on Biological Diversity and the Cartagena Protocol on Biosafety to the Convention on Biological Diversity and their implications for both biosafety and genetic modification, there is surprisingly no mention of this in the Green Paper. In order to consider the feasibility and desirability of a new international agreement that sets standards for physical protection, containment measures and operating procedures, it is necessary to first consider what the existing requirements are nationally, regionally and internationally.²⁷

45. In the United Kingdom, there have been tight controls of human, animal and plant pathogens for a number of years which have stemmed from concerns about both the health and safety of workers exposed to such pathogens and to the dangers to human health and to the animal and plant environment that could arise should such pathogens be released into the environment. These national controls have in recent years been harmonized with those in Europe through Directives of the European Community. In the UK, the Advisory Committee on Dangerous Pathogens (ACDP) -- an advisory committee of the UK Health and Safety Commission which also advises Health and Agriculture Ministers -- in 1995²⁸ issued the Fourth Edition of its publication "*Categorisation of biological agents according to hazard and categories of containment*" which has subsequently been updated by the second supplement.²⁹ The 1995 edition reflected the need to implement two European Community Directives concerned with biological agents which had the effect of converting what had hitherto been guidance into law. This sets out the legal requirements as well as guidance that applies in the UK to selection of containment measures to be applied to the various specified categories of biological agents. These categories are:

Hazard Group 1: *A biological agent unlikely to cause human disease*

Hazard Group 2: *A biological agent that can cause human disease and may be a hazard to employees; it is unlikely to spread to the community and there is usually effective prophylaxis or effective treatment available;*

Hazard Group 3: *A biological agent that can cause severe human disease and presents a serious hazard to employees; it may present a risk of spreading to the community, but there is usually effective prophylaxis or treatment available.*

²⁷A detailed survey of national, regional and international requirements is provided in Graham S. Pearson, *Article X: Some Building Blocks*, University of Bradford Department of Peace Studies Briefing Paper No. 6, March 1998 and Graham S. Pearson, *Article X: Some Building Blocks*, University of Bradford Department of Peace Studies Briefing Paper No. 7, March 1998. Available at <http://www.brad.ac.uk/acad/sbtwc>

²⁸Advisory Commission on Dangerous Pathogens, *Categorisation of biological agents according to hazard and categories of containment*, Fourth Edition 1995, Her Majesty's Stationery Office, London, 1995.

²⁹Advisory Commission on Dangerous Pathogens, *Second supplement to Categorisation of biological agents according to hazard and categories of containment*, Second edition, 2000, Her Majesty's Stationery Office, London. Available at <http://www.hse.gov.uk/hlthdir/noframes/biolhaz.htm>

Hazard Group 4: *A biological agent that causes severe human disease and is a serious hazard to employees; it is likely to spread to the community and there is usually no effective prophylaxis or treatment available.*

The containment levels 2, 3 and 4 which are to be used for work with biological agents in hazard groups 2, 3 and 4 respectively have legal requirements regarding their containment. For example, the requirements for containment level 2 include:

- 1 *Access to the laboratory is to be restricted to authorised persons* [Emphasis added]
- 3 *If the laboratory is mechanically ventilated, it must be maintained at an air pressure negative to atmosphere while work is in progress.*
- 5 *There must be safe storage of biological agents.*

For containment level 3 they include:

- 1 *Access to the laboratory is to be restricted to authorised persons* [Emphasis added]
- 3 *The laboratory must be maintained at an air pressure negative to atmosphere. Extracted air must be HEPA filtered or equivalent.*
- 5 *There must be safe storage of biological agents.*

whilst for containment level 4 they include:

- 1 *Access to the laboratory must be restricted to authorised personnel and a key procedure established so that entry is restricted at all times. Entry must be through an airlock.* [Emphasis added]
- 3 *The laboratory must be maintained at an air pressure negative to atmosphere. Input air must be HEPA filtered and extract air double HEPA filtered.*
- 5 *There must be safe storage of biological agents.*

46. When it is recognized that notification is required to HSE at least 30 days in advance of 'first use' of biological agents in Groups 2, 3 and 4, subsequent use of biological agents in Groups 2, 3 and 4, or intended consignment or receipt from abroad of Group 4 agents and that this notification must include the address where the biological agent(s) will be stored, used or consigned and also preventative and protective measures, it is evident that in the UK -- as well as in the European Union -- there is already considerable attention given to physical protection of dangerous pathogens. Insofar as genetic modification is concerned in the UK and in the European Union, there are legal requirements requiring both notification and containment.

47. At the international level, the UNEP International Technical Guidelines for Safety in Biotechnology³⁰ points out the importance of containment in the risk management of biological organisms and modified organisms noting that *"the degree of containment achieved depends primarily on the type of physical barriers and the application of appropriate work procedures."* It also includes *"any relevant requirements to ensure safe handling, storage, subsequent transport and use"* as being part of the information to be provided before such organisms are transferred from one country to another. More recently the Cartagena Protocol on Biosafety to the Convention on Biological Diversity³¹ includes requirements for the provision of information that *"specifies any requirements for the safe handling, storage, transport and use' of living modified organisms."* Although the Cartagena Protocol focusses on genetically-modified organisms, it is recognised that the provisions for safe handling, storage, transport and use of such organisms are based on and developed from those for unmodified organisms. In addition the Organization for Economic Cooperation and Development (OECD) has long been engaged in the harmonization of regulatory oversight in biotechnology with the aim of promoting international harmonization in biotechnology including health and safety aspects.

48. It is consequently apparent that there is already considerable attention being given to the containment of biological agents and of genetically modified organisms nationally (as in the UK) , regionally (as in the EU) and internationally. Any consideration of a new Convention on Physical Protection of dangerous pathogens needs to be carefully crafted so as to be complementary to the existing regulations. Indeed, consideration needs to be given whether the physical protection aspects are better addressed through the existing international fora under the Convention on Biological Diversity, thereby avoiding the risk of possible confusion and unnecessary duplication, rather than through a new security convention.

49. In regard to **tighter national controls**, the Green Paper notes that *"States Parties should in any case be encouraged to enact tighter domestic controls on the use, storage and transfer of pathogens."* and then goes on to mention that *"The UK's new anti-terrorist legislation (The Anti-Terrorism, Crime and Security Act 2001) provides a good example of legislation containing measures to prevent the unauthorised acquisition of pathogens and toxins."* There is indeed much to be said in support of tighter domestic controls on the use, storage and transfer of pathogens with the United States "select agent" programme³² as another example. Indeed, one of the benefits that was identified as arising from the composite Protocol text was that the provisions in Article 14 *Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation* in Section F *Cooperative Relationships with Other International Organizations and Among States Parties* included provision for agreements and arrangements in order to derive the greatest possible synergy in, and benefits from:

(vi) *Regulations governing the handling, transportation, use and release of microbial and other biological agents and toxins.*

³⁰United Nations Environment Programme, *UNEP International Technical Guidelines for Safety on Biotechnology*, UNEP, Nairobi, Kenya, December 1995. Available at <http://www.unep.org/unep/program/natres/biodiv/irb/unepgds.htm>

³¹Cartagena Protocol on Biosafety to the Convention on Biological Diversity. Available at <http://www.biodiv.org>

³²An account of the "select agent" programme is provided in Graham S. Pearson, *Article X: Some Building Blocks*, University of Bradford Department of Peace Studies Briefing Paper No. 7, March 1998, para 47-53. Available at <http://www.brad.ac.uk/acad/sbtwc>

It was apparent that over time the building of capacity in member States relating to the regulation and control of the handling, use, storage and transfer of biological agents will not only build confidence in compliance with the Convention but also bring benefits nationally in regard to public health and protection of the environment. This is, however, again an area that needs to be developed in conjunction with the ongoing international and regional efforts to harmonise biosafety standards and controls around the world.

50. (g) ***a new Convention on Criminalisation of CBW.*** The Green Paper notes that "*there are already proposals, developed initially in the academic community, for a new Convention that introduces criminal responsibility for any individual indicted for violating the prohibitions in the Biological and Toxin Weapons Convention or the Chemical Weapons Convention. and that States would be obliged to prosecute or extradite indicted individuals.*" but is somewhat ambivalent about what should be done about these proposals. It is clear from the proposals developed by the Harvard-Sussex programme for a Convention to Prohibit Biological and Chemical Weapons under International Criminal Law³³ that this would complement the prohibitions of the BTWC and the CWC as it would make it a crime under international law for any person knowingly to develop produce, acquire, retain, transfer or use biological or chemical weapons or knowingly to order, direct or render substantial assistance to those activities or to threat to use biological or chemical weapons. The proposed convention rightly defines chemical and biological weapons as they are defined in the BTWC and the CWC on the basis of the general purpose criterion in these conventions. Any person who commits any of the prohibited acts anywhere would face the risk of prosecution or extradition should that person be found in the territory of a state that supports the proposed convention.

51. The Green Paper goes on to note that "*existing UK legislation, the Biological Weapons Act 1974 and the Chemical Weapons Act 1996, already provides for penal legislation for violation of the BTWC and CWC by individuals in the UK and abroad.*" As was noted above in comments on the potential measure (c) *national criminal legislation and extradition*, this proposal would be greatly assisted by the collation and analysis by a small international secretariat of the national criminal legislation enacted by States Parties. The experience with the Chemical Weapons Convention (CWC) in which the Secretariat of the OPCW has carried out such a collation and analysis of the legislation enacted by the States Parties to implement the CWC has clearly demonstrated the value of such a collation and analysis as an encouragement to all States Parties to not only implement their legislation but also to ensure that it is effective. There is likewise value in the small secretariat providing model legislation to assist States Parties.

52. (h) ***increase efforts on disease surveillance, detection and diagnosis and countering infectious disease generally.*** The Green Paper rightly notes that "*this would be done through existing national and/or international efforts*" i.e. via the WHO, FAO and OIE. and furthermore emphasises that "*the overall framework within which any action plans were pursued would need to be clear.*" There is no doubt that improved national strategies for ensuring human, animal and plant health through disease surveillance and countering outbreaks of disease harmonized internationally through the WHO, FAO and OIE programmes will bring benefits to all States Parties. It is primarily through benefits to national infrastructure and increased transparency that there are potentially, over times,

³³The Harvard Sussex Program on CBW Armament and Arms Limitation, *The Draft Convention to Prohibit Biological and Chemical Weapons under International Criminal Law*, November 2001. Available at <http://fas-www.harvard.edu/~hsp/crim01.pdf>

benefits from building confidence in compliance. There are also potential benefits in reducing the chance that accidental releases or deliberate attacks will go unrecognized.

53. (i) **codes of conduct for professional bodies.** The Green Paper notes that *"such codes would be developed by academic and professional bodies to lay out standards internationally for work relevant to the prohibitions of the Convention.* Interestingly, it uses "would" rather than "could" although "could" must be more likely as there can be no certainty that academic and professional bodies will indeed lay out standards internationally. This would seem to be essentially an elaboration of the appeals that have long been made by the States Parties at the Review Conferences -- at the Fourth Review Conference in 1996, the Final Declaration³⁴ in the section on Article I stated that:

8. The Conference appeals through the States Parties to their scientific communities to lend their support only to activities that have justification for prophylactic, protective and other peaceful purposes, and refrain from undertaking or supporting activities which are in breach of the obligations deriving from provisions of the Convention.

In addition, an awareness of the prohibitions resulting from the BTWC has also long been encouraged by the States Parties at the Review Conferences -- at the Fourth Review Conference in 1996, the Final Declaration³⁵ in the section on Article IV stated that the Conference notes the importance of:

- Inclusion in textbooks and in medical, scientific and military education programmes of information dealing with the prohibitions and provisions contained in the Biological and Toxin Weapons Convention and the Geneva Protocol of 1925;

Whilst there would be benefits from such an international code of ethics, the Green Paper says nothing as to how such a code might be developed or implemented.

54. (j) **actively promoting universal membership of the BTWC.** The Green Paper noting that there are currently 145 States Parties states that *"further diplomatic efforts could be made to encourage full membership of the Convention and participation in Review Conferences."* This is a laudable goal which has been made at successive Review Conferences. For example at the Fourth Review Conference, the Article XIV section of the Final Declaration included the following:

2. The Convention calls upon States which have not yet ratified or acceded to the Convention to do so without delay and upon those States which have not signed the Convention to join the States Parties thereto, thus contributing to the achievement of universal adherence to the Convention.

3. In this connection, the Conference requests States Parties to encourage wider adherence to the Convention.

³⁴United Nations, Fourth 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, *Final Declaration*, BWC/CONF.IV/9, Geneva, 1996. Available at <http://www.opbw.org>

³⁵United Nations, Fourth 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, *Final Declaration*, BWC/CONF.IV/9, Geneva, 1996.

4. *The Conference particularly welcomes regional initiatives that would lead to wider accession to the Convention.*

No detail is provided in the Green Paper as to how such further diplomatic efforts might be effective. It is regretted that the Depositaries of the BTWC did not take advantage of the opportunity that arose at the Millennium Summit in 2000 when the UN Secretary-General wrote³⁶ to Heads of State and Government to advise them that special facilities would be provided for Heads of State or Government to add their signatures to any treaty or convention of which the Secretary-General is the depositary and to encourage them, in particular, to sign 25 core treaties³⁷ -- which included five disarmament treaties including the CWC and the CTBT. Some 85 States took advantage of the opportunity provided by the Millennium Summit.

55. (k) ***withdrawal of reservations to the 1925 Geneva Protocol.*** The Green Paper says that "*many States Parties to the BTWC retain their right through reservations to the Protocol to retaliate in kind if they are attacked with BW.*" and rightly goes on to point out that "*given the legal inconsistency with the obligations they have undertaken in the BTWC, those retaining rights of retaliation should be urged to lift them.*" As of 31 January 2001, some 23 States Parties out of the 133 States Parties to the Geneva Protocol still maintain reservations³⁸. The question is how many of these reservations are pertinent: as was noted in the Article VIII section³⁹ of the Key Points for the Fifth Review Conference document:

17. It is noteworthy that, of those States Parties which maintained pertinent reservations after the Fourth Review Conference, three years later only two States Parties had formally notified the withdrawal of their reservations, according to the Depositary's list. Belgium's withdrawal of its (1928) reservations took effect on 27 February 1997 and Estonia's withdrawal of its (1931) reservation on 29 July 1999. The Depositary still listed⁴⁰ 21 States Parties to the Protocol as maintaining pertinent reservations as at 31 December 1999.

18. Of the 21 States Parties to the Protocol maintaining a pertinent reservation on 31 December 1999, all but three (Algeria, Angola and Israel) were also States Parties to the BTWC. They were Bahrain, Bangladesh, China, Fiji, India, Iraq, Jordan, Korea (North), Korea (South), Kuwait, Libya, Nigeria, Papua New Guinea, Portugal, Russia, Solomon Islands, Viet Nam and Yugoslavia. A recent study⁴¹ comments on this group of 18 States Parties:

"It is possible that some reservations have been retained, unmodified, through inattention to Geneva Protocol status, but it seems unlikely that all have been

³⁶UN Secretary-General, *Letter to Heads of State or Government*, 15 May 2000. Available at <http://untreaty.un.org/English/millennium/law/sgletter.htm>

³⁷Available at <http://untreaty.un.org/English/millennium/law/treaties.htm>

³⁸France, *Protocole de Geneve 1925, Etat des Ratifications et des Reserves au 31 Janvier 2001*.

³⁹Nicholas A. Sims & Graham S. Pearson, *Article VIII: Geneva Protocol Obligations* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁴⁰Information supplied by the Embassy of France, Stockholm, 10 May 2000, to SIPRI for Nicholas A. Sims, *The Evolution of Biological Disarmament*, Oxford, OUP/SIPRI, 2001, p 161.

⁴¹Nicholas A. Sims, *The Evolution of Biological Disarmament*, Oxford, OUP/SIPRI, 2001, p 161.

retained by default. Although several of these states, parties both to the Geneva Protocol and to the BTWC, showed some interest in the 1990s in withdrawing or modifying their protocol reservations, or declared their intention to do so, none had officially notified the depositary by 31 December 1999. As of that date, their reservations accordingly remained in force."

The delegations of the States Parties listed are recommended to clarify the position of their government on the Geneva Protocol and if possible to announce the withdrawal of pertinent reservations before or during the Fifth Review Conference, as was done by Canada and the United Kingdom during the Third Review Conference, and by South Africa and France respectively before and during the Fourth Review Conference. Such announcements, by the eighteen States Parties listed, followed up by formal notification to the Depositary for the Protocol without delay, would contribute greatly to increasing confidence in the BTWC for the reasons stated in the seventh paragraph of the Fourth Review Conference Final Declaration. The importance of withdrawing reservations is recognised in the fifth paragraph and such actions are specifically welcomed in the sixth paragraph of the Article VIII section of the Final Declaration agreed by the Fourth Review Conference.

56. Successive Review Conferences of the BTWC have stressed the importance of the withdrawal of all reservations to the 1925 Geneva Protocol related to the Biological and Toxin Weapons Convention. The Article VIII section of the Final Declaration⁴² of the Fourth Review Conference repeated these points, but also noted in new language, that had not been in the Final Declaration of the Third Review Conference in 1991, that:

6. The Conference welcomes the actions which States Parties have taken to withdraw their reservations to the 1925 Geneva Protocol related to the Biological and Toxin Weapons Convention, and calls upon those States Parties that continue to maintain pertinent reservations to the 1925 Geneva Protocol to withdraw those reservations, and to notify the Depositary of the 1925 Geneva Protocol of their withdrawals without delay.

7. The Conference notes that reservations concerning retaliation, through the use of any of the objects prohibited by the Biological and Toxin Weapons Convention, even conditional, are totally incompatible with the absolute and universal prohibition of the development, production, stockpiling, acquisition and retention of bacteriological (biological) and toxin weapons, with the aim to exclude completely and forever the possibility of their use.

57. In the previous section on the promotion of the universality of the BTWC mention was made of a missed opportunity at the Millennium Summit in 2000. Likewise, the Depositary of the Geneva Protocol also did not take advantage of the opportunity raised by the Millennium Summit of the United Nations to encourage States to become party to the Geneva Protocol or to encourage withdrawal of any remaining reservations.

58. In considering how to encourage universality of the BTWC, the Geneva Protocol and the withdrawal of reservations to the Geneva Protocol, there is much to be said for the

⁴²United Nations, Fourth 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, *Final Declaration*, BWC/CONF.IV/9, Geneva, 1996.

preparation and publication of regional comparative tabulations showing signature and accessions to the BTWC, to the CWC and to the Geneva Protocol as well as the status of the outstanding reservations to the Geneva Protocol. This would require the co-Depositaries of the BTWC -- the Russian Federation, the United Kingdom and the United States -- to approach France as the Depositary of the Geneva Protocol and the Secretary-General of the United Nations as the Depositary of the CWC to propose that the Department of Disarmament Affairs in the UN should prepare and publish these regional comparative tables. As an example, such a tabulation for the countries of the ASEAN Regional Forum prepared for a seminar in Seoul, South Korea in December 2001 was as follows:

ASEAN Regional Forum (ARF) Membership of Geneva Protocol, BTWC And CWC

Country	Geneva Protocol	Reservation to Geneva Protocol	Biological and Toxin Weapons Convention	Chemical Weapons Convention
Australia	√		√	√
Brunei	?		√	√
Cambodia	√	Reservation	√	Signatory
Canada	√		√	√
China	√	Reservation	√	√
DPRK	√	Reservation	√	?
India	√	Reservation	√	√
Indonesia	√		√	√
Japan	√		√	√
Laos	√		√	√
Malaysia	√		√	√
Mongolia	√		√	√
Myanmar	?		Signatory	Signatory
New Zealand	√		√	√
Papua New Guinea	√	Reservation	√	√
Philippines	√		√	√
Republic of Korea	√	Reservation	√	√
Russia	√		√	√
Singapore	?		√	√
Thailand	√		√	Signatory
USA	√	Reservation	√	√
Vietnam	√	Reservation	√	√

Measures Identified at the Fifth Review Conference by Other States Parties to the BTWC

59. For completeness, the measures identified by other States Parties at the Fifth Review Conference which were summarized above in the table reproduced below for convenience are considered in turn.

Specific extensions to CBMs A & G and new CBM H	South Africa
Enhanced accountability through annual meetings	New Zealand
Regular annual meetings of subsidiary bodies and/or an Oversight Committee	Canada New Zealand Norway
Article X implementation	Brazil China EU Pakistan South Africa
Guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors	India
Inclusion of terrorism and public health in a future legally-binding mechanism	Norway

60. ***Specific extensions to CBMs A & G and new CBM H.*** The proposals made by South Africa are quite detailed⁴³. Amendments to the two of the existing CBMs "A" -- the declaration of maximum containment facilities -- and CBM "G" -- the declaration of vaccine production facilities -- so as to extend coverage to animal and plant pathogen facilities as well as proposal of a new CBM "H" for declaration of plant inoculant and biocontrol agent production facilities. These proposals are welcomed and supported as it is important to focus the CBMs on animal and plant pathogens as well as human pathogens and the dangers from plant inoculant and biocontrol agent production facilities.⁴⁴

61. ***Enhanced accountability by annual meetings and Regular annual meetings of subsidiary bodies and/or an Oversight Committee.*** These proposals made by New Zealand, Canada and Norway are considered together. There has long been a compelling argument for the States Parties to the BTWC to set up interim supportive institutions which will enable the BTWC treaty regime to flourish and achieve its true potential. The resources required for such an institution would indeed be modest. The arguments for such interim supportive institutions has been convincingly made by Nicholas Sims in the Bradford Review Conference Paper No. 2⁴⁵ distributed to States Parties in April 2001 and reiterated in the Article XII section of the Key Points for the Fifth Review Conference.⁴⁶ The omission of this measure from the Green Paper is also surprising given that the European Union in its

⁴³South Africa, *Strengthening Confidence-Building Measures*, BWC/CONF.V/COW/WP.1, 16 November 2001. Available at <http://www.opbw.org>

⁴⁴See the South African contribution to United Nations, *Background Paper on New Scientific and Technological Developments Relevant to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, BWC/CONF.V/4, 14 September 2001. Available at <http://www.opbw.org>. See also the discussion in para 37-39 of Graham S. Pearson, *New Scientific and Technological Developments of Relevance to the Fifth Review Conference*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 3, July 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁴⁵Nicholas A. Sims, *The Functions of the BTWC Review Conferences: Maximizing the Benefits from the Fifth Review Conference*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 2, April 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁴⁶Nicholas A. Sims & Graham S. Pearson, *Article XII: Review Conferences* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

statement⁴⁷ to the Fifth Review Conference said that *"It is essential that the Conference agree to a regular follow-up to the work to enable the States Parties to strengthen the Convention comprehensively. The EU will do its utmost to achieve that objective."*

62. **Article X implementation.** The proposals made by Brazil and South Africa noted that the language developed in Article 14 of the composite draft Protocol contained provisions that could guide States Parties in future actions regarding the full operation of Article X. It is evident that Article X has attracted increased attention in the Final Declarations of successive Review Conferences.⁴⁸ The development of national infrastructure in the context of measures for the implementation of Article X of the Convention is to be supported as such measures over time will increase transparency and thus contribute to building confidence in compliance with the Convention. The difficulty with simply agreeing language in the Article X section of the Final Declaration of the Review Conference is that there is little evident implementation during the years between the Review Conferences. Consequently, this is another area in which an interim supportive institution could make a valuable contribution by collecting, collecting and issuing to States Parties an annual report on the implementation of Article X.

63. **Guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors.** Previous Review Conferences have agreed language in the Article III section of the Final Declaration -- for example, at the Fourth Review Conference -- which stated that:

2. The Conference notes that a number of States Parties stated that they have already taken concrete measures to give effect to their undertakings under this Article and in this context also notes statements made by States Parties at the Conference about the legislative or administrative measures they have taken since the Third Review Conference. The Conference calls for appropriate measures by all States Parties.

and also stated that:

The Conference affirms that Article III is sufficiently comprehensive to cover any recipient whatsoever at international, national or subnational levels.

The Final Declaration of the Fourth Review Conference also noted that:

The Conference discussed the question whether multilaterally-agreed guidelines or multilateral guidelines negotiated by all States Parties to the Convention concerning the transfer of biological agents, materials and technology for peaceful purposes to any recipient whatsoever might strengthen the Convention.

without reaching any conclusion other than to note that these issues are being considered as part of the ongoing process to strengthen the Convention.

⁴⁷Belgium, *Statement by Belgium on behalf of the European Union*, 19 November 2001. Available at <http://www.opbw.org>

⁴⁸See Graham S. Pearson, *Article X: Exchange of Equipment, Materials and Scientific and Technological Information, International Cooperation and Development* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

64. It is noted that the onus in Article III of the Convention is clearly placed on the individual States Parties as Article III states that:

Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of this Convention.

The composite Protocol includes in Article 7 a Section B entitled "Transfer Guidelines". When it is recognized that the States Parties are concerned about the effective implementation of Article III and that this is primarily a national responsibility, there are potential benefits from considering guidelines to ensure the strengthening of Article III and to prohibit transfers to non-State actors as such guidelines should over time improve the implementation of Article III. It needs to be clear, however, that these would simply be guidelines and it would be a matter for individual States Parties to determine whether or not to adopt these guidelines -- or a lesser or higher standard -- nationally.

65. Inclusion of terrorism and public health in a future legally-binding mechanism. The proposal referred to by Norway is not immediately apparent. The Norwegian statement said that:

"With regard to more substantive work on strengthening the Convention, Norway has noted the proposals in this regard with interest. Without entering into any substantive discussion at this stage, we would like to express support for the proposal to include terrorism and public health in a future legally-binding instrument."

It is possible that the Norwegian statement was referring to the statement⁴⁹ by Canada which said that "*recent bioterrorism has underscored the vulnerabilities of basic infrastructure and the critical importance of public health capability...*" and then later towards the end of the statement it says "*we need binding law, compliance and enforcement.*" In the absence of further information, it is difficult to evaluate the proposal supported by Norway.

V. Improvements to Export Controls, Deterrence and Defence Capabilities

66. The next section of the Green Paper has one paragraph taking note of other measures, primarily at the national level, that are already being taken and could be expanded upon or revised to combat the BW threat by strengthening the other "*pillars*" of export controls, deterrence and defence, a paragraph addressing a possible UN Security Council Resolution and a subsection of three paragraphs on the role of biodefence. The paragraph on a UN Security Council Resolution states that a Resolution "*underlining the Council's determination to counter any BW use or threat of use could help deter non-compliance.*" Whilst such Security Council attention would be helpful, it has to be recognized that the Security Council meeting for the first time at the Heads of State or Government level on 31 January 1992 agreed the statement that:

⁴⁹Christopher Westdal, *Statement by His Excellency Christopher Westdal, Ambassador and Permanent Representative to the Conference on Disarmament, The Fifth Review Conference 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*, Geneva, 19 November 2001. Available at <http://www.opbw.org>

"The proliferation of all weapons of mass destruction constitute a threat to international peace and security. The members of the Council commit themselves to working to prevent the spread of technology related to the research for or production of such weapons and to take appropriate action to that end." [Emphasis added]

Despite this commitment, the unanimity of the Security Council in acting to counter the proliferation of weapons of mass destruction since that date has left much to be desired. It is equally clear that the resolve of the Security Council to deal with Iraq's flagrant disregard of the UN Security Council resolutions on Iraq is far from clear. Consequently, it is not immediately apparent what a UN Security Council resolution on its determination to counter any BW use or threat of use would actually achieve.

67. *The role of biodefence.* This subsection notes the ongoing UK biological defence programme and rightly states that *"the UK believes that measures are complementary to the disarmament obligations contained within the Convention and to measures that can and should be taken to strengthen it."*

VI. United Kingdom Priorities

68. This section of the Green Paper states that *"a range of measures must be deployed to combat the BW threat."* and goes on to emphasise that *"international co-operative efforts in the framework of the BTWC provide a key way of responding to the perversion of science that is biological warfare."* It then addresses the priorities for strengthening the BTWC and states that *"the UK sees five specific areas for immediate action:*

- *Establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention, to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the Convention, and alleged use of BW;*
- *Greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health;*
- *Criminalisation of violations of the Convention;*
- *The implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification; and*
- *Greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused.*

It then adds that the other options outlined earlier in the Green Paper are *possibilities* and that *"the UK is ready to examine these and any others that may serve to counter the threat."*

VII. The Way Forward

69. The final section of the Green Paper emphasises the importance of remaining flexible on *"how the international community might best tackle the pressing need to strengthen the effectiveness of the Convention in deterring the proliferation of BW."* It goes on to rightly stress that *"National, regional and international efforts will all have synergistic effects."* and that *"the UK favours a combination."*

70. It notes that one option at the international level might be to have annual reviews of the Convention to hear reports made by expert groups with time limited and focussed mandates which could be tasked to elaborate specific measures and/or to report on specific developments relevant to the Convention. There is merit in this proposal -- which clearly attracts international support as it was proposed by several of the States Parties in November 2001 -- as it would provide a way forward which could incrementally improve the Convention. It will, however, be important to ensure that such annual reviews can reach decisions in a comparable way to the five year Review Conferences.

71. The Green Paper notes that *"the health of the Convention is not just a matter for governments* and states that *the UK believes that there is a vital role to be played by academia, industry, the medical and veterinary communities."* Whilst this is undoubtedly true, it is equally evident that governments need to **lead** and to take a much more active role in sensitizing and making *"academia, industry, the medical and veterinary communities"* aware of the importance of the Convention. The Final Declarations of successive Review Conferences have seen inclusion in the Article IV section of language as at the Fourth Review Conference:

The Conference notes the importance of:

- Legislative, administrative and other measures designed to enhance domestic compliance with the Convention;*
- Legislation regarding the physical protection of laboratories and facilities to prevent unauthorized 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 Biological and Toxin Weapons Convention and the Geneva Protocol of 1925.*

There is little, if any, sign that States Parties have taken action to implement this language in such a way as to make *"academia, industry, the medical and veterinary communities"* aware. In the case of the United Kingdom, a co-depositary of BTWC, there has been no posting on the Foreign Office website of the Final Declarations of previous Review Conferences or of the UK contributions to the background papers on scientific and technological advances relevant to the Convention.

72. The Green Paper goes on to state that *"there may be considerable merit in convening annual meetings involving those in both the UK government and non-government communities with an interest in maintaining the health of the BTWC."* This proposal is strongly supported as hitherto nuclear issues have tended to predominate in such meetings in the UK although there are indications that the UK government now considers biological

weapons to pose a greater threat. For example, the UK Ministry of Defence paper⁵⁰ issued in July 1999 -- *"Defending Against the Threat from Biological and Chemical Weapons"* -- referred to more than once in the Green Paper states that *"The potential threat from biological and chemical agents is now greater than that from nuclear weapons."* There is little doubt that as the Green Paper notes such meetings would indeed help sustain visibility of the issues, provide an interdisciplinary forum for exchanging views on ways of strengthening the Convention and on relevant scientific and technological developments. More importantly, such meetings should engender a sense of partnership in addressing how to strengthen the regime for the total prohibition of biological weapons and the prevention of their proliferation both to States and to non-State actors. There would be advantage in holding the first such meeting in October 2002 -- after the Foreign Office has received the comments on the Green Paper due by 13 September 2002 and prior to the resumption of the Review Conference on 11 November 2002.

Analysis

73. The Green Paper has provided a valuable appreciation of the United Kingdom government's views on the strengthening of the Biological and Toxin Weapons Convention. This is especially useful given that the United Kingdom is one of the three co-depositaries of the Convention and was one of the principal instigators of the Convention when it was negotiated at the end of the 1960s and early 1970s.

74. The Green Paper makes it very clear that the strengthening of the Convention is a key element in the strategy to counter biological weapons. It rightly stresses that the recent events of September 2001 and the anthrax attacks in the United States have *"highlighted the seriousness of the potential threat to international security from biological weapons proliferation and the need for an urgent and focussed international response."* [Emphasis added] It is made clear that *"overall the UK judged that the Chairman's draft Protocol's provisions, although not as extensive in some areas as we would have wished, nonetheless represented a substantive improvement on the status quo represented by the Convention."* [Emphasis added]

75. The reality of the current situation is recognized and in considering how to counter the threat and strengthen the Convention, the Green Paper says that:

Global problems ideally require global cooperative solutions; individual efforts taken at a national level, although useful and, in some cases, essential, can have a truly global impact only if they are implemented by states in concert and to a uniform standard.

and goes on rightly to emphasise that *"the fact that we have concerns that the Convention is being flouted is a reason for redoubling our efforts, not abandoning them."*

76. The Green Paper then sets out a range of the measures that could be deployed to strengthen the Convention which have been identified by the UK, its EU partners, the US and academics in a number of countries. Regrettably, the Green Paper appears to ignore the fact that several of the measures listed were also supported by other States Parties in their statements at the Fifth Review Conference in November 2001. It also excludes mention of

⁵⁰Ministry of Defence, *Defending Against the Threat from Biological and Chemical Weapons*, July 1999. Available at <http://www.mod.uk/issues/cbw/index.htm>

other measures proposed by other States Parties at the Review Conference. There would be significant benefit to be gained from creating a really comprehensive list of the measures proposed to the Fifth Review Conference as this could then attract support from many States Parties as being a list that should be considered further at a meeting subsequent to the Review Conference.

77. For this analysis, it is useful to create a comprehensive list of the measures identified in the Green Paper or proposed by States Parties in their statements to the Fifth Review Conference in November 2001.

Proposed Measure	State Party
Investigations into non-compliance (alleged use, misuse of facilities, suspicious outbreaks)	Green Paper
Effective compliance machinery to make it much harder to cheat	New Zealand
Assistance in the event of, or threat of, use of BW	Green Paper + UN S-G India Ukraine
National criminal legislation and extradition	Green Paper + UN S-G
A Scientific Advisory Panel	Green Paper
Enhanced accountability through annual meetings	New Zealand
Regular annual meetings of subsidiary bodies and/or an Oversight Committee	Canada Japan New Zealand Norway
Revised CBMs	Green Paper + Canada New Zealand Russia
Specific extensions to CBMs A & G and new CBM H	South Africa
A new Convention on Physical Protection of dangerous pathogens	Green Paper
Enhanced national controls on dangerous pathogens	Green Paper + India
A new Convention on Criminalization of CBW	Green Paper + UN S-G Switzerland
Increase efforts on disease surveillance, detection and diagnosis and countering infectious disease generally	Green Paper + Japan
Codes of conduct for professional bodies	Green Paper

Proposed Measure	State Party
Actively promoting universal membership of the BTWC	Green Paper + Canada Iran New Zealand Norway Pakistan Russia Switzerland
Withdrawal of reservations to the 1925 Geneva Protocol	Green Paper + Mexico
Article X implementation	Brazil China EU Pakistan South Africa
Guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors	India
Inclusion of terrorism and public health in a future legally-binding mechanism	Norway
Institutional arrangements to combat bioterrorism	Ukraine
Strengthened moral and legal norms	India

78. Action on some of the above measures could be initiated immediately as they do not require negotiation -- and already attract international support as they have been the subject of language in previous Final Declarations. Examples are steps to promote universality of the BTWC and the removal of reservations to the 1925 Geneva Protocol. Other measures will require negotiation which is likely to be prolonged if the product is intended to be legally-binding.

Measures likely to require little or no negotiation

79. In considering the way forward, it is useful to first consider the measures that are likely to require little or no negotiation:

Actively promoting universal membership of the BTWC	Green Paper + Canada Iran New Zealand Norway Pakistan Russia Switzerland
Withdrawal of reservations to the 1925 Geneva Protocol	Green Paper + Mexico

It is considered that these could best be tackled together by a concerted effort involving the co-depositaries for the BTWC, the depositary for the 1925 Geneva Protocol and also the depositary for the CWC, as well as the OPCW. The objective should be to increase the

universality of the BTWC, the 1925 Geneva Protocol and the CWC together with the withdrawal of reservations from the 1925 Geneva Protocol. Awareness should first be raised by preparation of regional comparative tabulations showing which States have yet to accede or to withdraw their reservations. This should then be followed by a concerted effort to provide States not party with a model package of documentation providing examples of how accession to the relevant Convention or Protocol can be communicated and, likewise, withdrawal of reservations to the 1925 Geneva Protocol. This package should also be supplemented by model legislation that could be used by the State concerned in enacting its national implementing legislation. The initiative should also be backed by an offer of technical and financial assistance to enable the individual State concerned to take the necessary actions nationally and internationally to accede to the Convention or Protocol and to withdraw their reservations from the 1925 Geneva Protocol.

80. Two further measures are also likely to require little or no negotiation:

Increase efforts on disease surveillance, detection and diagnosis and countering infectious disease generally	Green Paper + Japan
Codes of conduct for professional bodies	Green Paper

The first of these -- to increase efforts on disease surveillance -- is stated by the Green Paper as being carried out through "*existing national an/or international efforts (i.e. via the WHO/UN FAO/OIE programmes).*" This should therefore not require negotiation -- at least, not in the BTWC forum -- to be taken forward. It is, however, worth recognising that there would be merit in action being taken internationally to promote the universality of adherence to the WHO (which has 191 Member States), to the UN FAO (which has 183 Member States but not Russia) and to the OIE (which has 157 Member States).

81. The second measure -- codes of conduct for professional bodies -- should require little negotiation as this requires States Parties to encourage their national professional bodies to adopt such codes of conduct. There would, however, be benefits from States Parties working together to compile some examples of best practice and then for a concerted international effort to be mounted by States Parties with their national professional bodies to encourage adoption of an appropriate code of conduct which should also be promoted internationally through international professional bodies.

82. Two further measures -- the national enactment of criminal legislation and of tighter controls on dangerous pathogens -- should also require little negotiation.

National criminal legislation and extradition	Green Paper + UN S-G
Enhanced national controls on dangerous pathogens	Green Paper + India

There would be benefits, as already noted in the context of the promotion of the universality of the BTWC, by compiling model legislation based on best practice that includes models for national implementing legislation and for enhanced national controls. It is also highly desirable that as agreed in the Article IV section of the Final Declaration of the Second Review Conference -- and repeated in subsequent Final Declarations -- States Parties do provide information on the texts of specific legislation enacted or other measures taken to

ensure domestic compliance. There would be benefit in this information being collated, translated and distributed on a regular basis to all States Parties.

Measures likely to require negotiation

83. The other measures are likely to require some negotiation. They can be grouped in order of likely increasing negotiation -- revised CBMs, annual meetings, assistance, criminalization Convention, physical protection Convention, Article X implementation and non-compliance investigations -- together with the other, currently more conceptual measures. These are each considered in turn following the tabulation.

Proposed Measure	State Party
Revised CBMs	Green Paper + Canada New Zealand Russia
Specific extensions to CBMs A & G and new CBM H	South Africa
Enhanced accountability through annual meetings	New Zealand
Regular annual meetings of subsidiary bodies and/or an Oversight Committee	Canada Japan New Zealand Norway
A Scientific Advisory Panel	Green Paper
Assistance in the event of, or threat of, use of BW	Green Paper + UN S-G India Ukraine
A new Convention on Criminalization of CBW	Green Paper + UN S-G Switzerland
A new Convention on Physical Protection of dangerous pathogens	Green Paper
Article X implementation	Brazil China EU Pakistan South Africa
Investigations into non-compliance (alleged use, misuse of facilities, suspicious outbreaks)	Green Paper
Effective compliance machinery to make it much harder to cheat	New Zealand
Guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors	India
Inclusion of terrorism and public health in a future legally-binding mechanism	Norway
Institutional arrangements to combat bioterrorism	Ukraine
Strengthened moral and legal norms	India

84. **Revised CBMs and specific extensions to CBMs A & G and new CBM H.** Some aspects -- such as the modalities for the improvement and extension of the CBMs -- should be

relatively easy to finalise by an ad hoc meeting of scientific and technical experts from States Parties as was done in a two week meeting in 1987 to finalise the modalities for the confidence-building measures agreed at the Second Review Conference in 1986. Other aspects relating to revised CBMs -- such as voluntary visits and a clarification mechanisms are likely to require more negotiation. There would be merit in agreeing that there should be an ad hoc meeting of scientific and technical experts from the States Parties to finalise the modalities as far as possible for the revised and extended CBMs and the new CBM H early in 2003. Any aspects that require further negotiation and consideration should be deferred to a subsequent meeting.

85. Annual meetings and subsidiary Panels. The concept of an interim supportive institution is not novel as it was considered at the Third Review Conference and narrowly missed being established then. The case for such an institution was set out clearly in the run up to the Fifth Review Conference in Bradford Review Conference Paper No. 2⁵¹ and again in the Article XII chapter of the Bradford Key Points for the Fifth Review Conference⁵². It should be possible to agree such an interim institution at the resumed Fifth Review Conference by adopting language in the Article XII section of the Final Declaration such as that proposed on pages 125 to 127 of the Key Points for the Fifth Review Conference.

86. Assistance in the event of, or threat of, use of BW. It was noted above that the effective provision of such assistance could be greatly promoted by the creation of a small secretariat which would collate offers of assistance from States Parties and serve as a focal point to facilitate their provision in the event of attack or serious threat of attack against a State Party. This could be incorporated into the remit for the proposed interim supportive institution at the outset or, alternatively, the interim supportive institution could establish a subsidiary body to consider the provision of assistance and discuss the detailed procedure for assistance so that this could be provided on a timely basis when required.

87. A new Convention on Criminalization of CBW. The draft Convention to Prohibit Biological and Chemical Weapons under International Criminal Law⁵³ developed by the Harvard-Sussex programme would complement the prohibitions of the BTWC and the CWC as it would make it a crime under international law for any person knowingly to develop produce, acquire, retain, transfer or use biological or chemical weapons or knowingly to order, direct or render substantial assistance to those activities or to threaten to use biological or chemical weapons. The draft convention rightly defines chemical and biological weapons as they are defined in the BTWC and the CWC on the basis of the general purpose criterion in these conventions. Any person who commits any of the prohibited acts anywhere would face the risk of prosecution or extradition should that person be found in the territory of a state that supports the proposed convention. This could be taken forward by one or more States Parties taking this draft new Convention to the Sixth Committee of the United Nations General Assembly.

⁵¹Nicholas A. Sims, *The Functions of the BTWC Review Conferences: Maximizing the Benefits from the Fifth Review Conference*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 2, April 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁵²Nicholas A. Sims & Graham S. Pearson, *Article XII: Review Conferences* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁵³The Harvard Sussex Program on CBW Armament and Arms Limitation, *The Draft Convention to Prohibit Biological and Chemical Weapons under International Criminal Law*, November 2001. Available at <http://fas-www.harvard.edu/~hsp/crim01.pdf>

88. **A new Convention on Physical Protection of dangerous pathogens.** It was noted above that considerable attention is already being given to the containment of biological agents and of genetically modified organisms nationally (as in the UK) , regionally (as in the EU) and internationally. Any consideration of a new Convention on Physical Protection of dangerous pathogens needs to be carefully crafted so as to be **complementary** to the existing regulations. Consideration needs to be given whether the physical protection aspects are better addressed through the existing international fora under the Convention on Biological Diversity, thereby avoiding the risk of possible confusion and unnecessary duplication, rather than through a new security convention. The idea of a new Convention addressing the physical protection of dangerous pathogens could be taken forward by one or more of the States Parties to the BTWC raising the subject at a Conference of the Parties to the Convention on Biological Diversity. The next Conference of the Parties will be held in Kuala Lumpur, Malaysia in the first quarter of 2004⁵⁴.

89. **Article X implementation.** As a further step forward, it is suggested that the Article X section of the Final Declaration of the Fifth Review Conference should be extended to include additional concepts for the implementation of Article X as proposed in subparagraphs 9 to 12 on page 113 of the Bradford Key Points for the Fifth Review Conference.⁵⁵ It was noted above that the difficulty with simply agreeing language in the Article X section of the Final Declaration of the Review Conference is that there is little evident implementation during the years between the Review Conferences. Consequently, this is another area in which an interim supportive institution could make a valuable contribution by collecting, collecting and issuing to States Parties an annual report on the implementation of Article X.

90. **Investigations into non-compliance (alleged use, misuse of facilities, suspicious outbreaks).** Investigations into suspected non-compliance are a key measure to strengthen the Convention -- and the Green Paper rightly includes misuse of facilities as well as alleged use and suspicious outbreaks. An extension of the existing UN Secretary-General process -- which is limited to instances where the State on whose territory the alleged use has taken place -- in respect of both the scope -- to misused facilities -- and the circumstances -- to include cases where the State Party where the investigation would take place has withheld its consent -- is unrealistic. Given the background of the Ad Hoc Group negotiations -- which have elaborated in exhaustive detail procedures for both facility and field investigations -- the viable option would appear to be the negotiation of an international agreement which, as the Green Paper rightly notes, should include other elements including scientific and technological assistance. The negotiation of such an international agreement should be able to benefit from the previous work carried out by the Ad Hoc Group.

91. **Other, more conceptual measures.** The other four measures identified from the statements made at the Review Conference are guidelines to ensure strengthening of Article III and to prohibit transfers of dual-use materials to non-State actors; inclusion of terrorism and public health in a future legally-binding mechanism; institutional arrangements to combat bioterrorism; and strengthened moral and legal norms. There is merit in exploring

⁵⁴Press Release, <http://www.biodiv.org/doc/meetings/cop/cop-06/other/cop-06-pr-end-en.pdf>

⁵⁵Graham S. Pearson, *Article X: Exchange of Equipment, Materials and Scientific and Technological Information for Peaceful Purposes and International Cooperation and Development* in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fifth Review Conference*, University of Bradford, Department of Peace Studies, November 2001. Available at <http://www.brad.ac.uk/acad/sbtwc>

these proposals further and this could be achieved through the interim supportive institutions considered above. Of these proposals, consideration of guidelines to strengthen the implementation of Article III has considerable merit as all States are increasingly concerned that they should have effective controls over the importation, handling, use and storage of dangerous pathogens. It has, however, to be recognized that the effective implementation of Article III is primarily a national responsibility for States Parties. Nevertheless, there are potential benefits from considering guidelines to ensure the strengthening of Article III and to prohibit transfers to non-State actors as such guidelines should over time improve the implementation of Article III.

Conclusions

92. The UK government, one of the three co-depositaries of the BTWC, is to be commended for the preparation of the Green Paper which provides a valuable insight into its views as to how the Biological and Toxin Weapons Convention should be strengthened which is a key element in its strategy against biological weapons. The Green Paper identifies a range of the measures that could be deployed to strengthen the Convention. Regrettably, the Green Paper limits its consideration to measures which have been identified by the UK, its EU partners, the US and academics in a number of countries and does not allude to the fact that several of the measures identified were also supported by other States Parties in their statements at the Fifth Review Conference in November 2001. It also does not mention other measures proposed by other States Parties at the Review Conference although the Green Paper after identifying the five areas for specific action then refers to the other measures identified in the Green Paper and says that *“the UK is ready to examine these and any others that may serve to counter the threat.”*

93. In considering the forthcoming resumed Review Conference there would be significant benefit to be gained from creating a comprehensive list of the measures proposed to the Fifth Review Conference as this could then attract support from many States Parties as being a list that should be reviewed and taken further at a meeting subsequent to the Review Conference. This comprehensive list of measures should be developed and agreed by the Western Group in advance of the resumption of the Review Conference and the opportunity should be taken to see whether the Eastern Group would be willing to be associated with the comprehensive list. The list should be tabled by Australia on behalf of the Western Group as a Working Paper for the resumed Review Conference. The analysis of all these measures shows that some would require little or no negotiation prior to being taken forward whilst other would require negotiation. It is also evident that an interim supportive institution would be immensely beneficial in helping to nurture and sustain the Convention between Review Conferences and could be highly effective in taking forward several of the proposed measures. Recommendations are made as to how the various measures might be efficiently progressed.

94. Insofar as the five specific areas identified by the UK for immediate action are concerned:

- *Establishment of an effective and legally binding process for investigation into suspected non-compliance with the Convention, to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the Convention, and alleged use of BW;*

- *Greater efforts to tackle the threat posed by natural infectious disease to human, animal and plant health;*
- *Criminalisation of violations of the Convention;*
- *The implementation by more countries of effective physical protection, containment measures and operating procedures for dangerous pathogens and toxins, and genetic modification; and*
- *Greater transparency between States Parties about their legitimate activities whose dual-use capabilities might be in danger of being misconstrued or misused.*

it is agreed that four of them will directly contribute to the strengthening of the regime against biological weapons. The fifth -- greater efforts to tackle infectious disease -- will contribute indirectly. It is recommended that all of the measures identified in the Green Paper together with those proposed by other States Parties should form the basis for strengthening the Convention regime. Some can be taken forward without delay whilst others will require negotiation to a greater or lesser extent.

95. The resumption of the Fifth Review Conference should agree an interim supportive institution to facilitate the further consideration of these measures by the States Parties subsequent to the resumed Review Conference.

96. At the national level, the UK Government should immediately institute the proposed annual meetings involving both those in government and in the non-government communities. There would be advantage in holding the first such meeting in October 2002 -- after the Foreign Office has received the comments on the Green Paper and prior to the resumption of the Review Conference on 11 November 2002.