

Strengthening the Biological Weapons Convention

Review Conference Paper No 17

The Blix Weapons of Mass Destruction Commission Report: Biological Weapons Related Issues

June 2006

Series Editors

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THE BLIX WEAPONS OF MASS DESTRUCTION COMMISSION REPORT: BIOLOGICAL WEAPONS RELATED ISSUES

by Graham S. Pearson

Introduction

1. The Weapons of Mass Destruction Commission (WMDC) was established by an initiative at the end of June 2003 by the late Foreign Minister of Sweden, Anna Lindh, in response a proposal by then United Nations Under-Secretary-General Jayantha Dhanapala, to create an independent international commission to examine how the world could tackle the problem of weapons of mass destruction¹. The Swedish Government invited Dr. Hans Blix to set up and chair the Commission. Dr. Blix presented the composition of the Commission to the public on 16 December, 2003 and set out what he saw were major tasks for it.

2. The mandate for the Commission as stated on its website² was as follows:

The Commission should seek to identify desirable and achievable directions for international cooperation. It should present realistic proposals aimed at the greatest possible reduction of the dangers of weapons of mass destruction. These should comprise both short-term and long-term approaches and aim at preventing the further spread of weapons as well as at their reduction and elimination. The scope of the investigation should be comprehensive and include nuclear, biological, chemical and radiological weapons and the means of delivering them, as well as possible links between these issues and terrorists.

The Commission should not be engaged in any tasks or negotiations at the governmental or intergovernmental level.

The Commission should help to stimulate an informed public debate about international and national efforts against weapons of mass destruction. It should therefore undertake outreach activities within its capacity to engage civil society and non-governmental organisations.

The mandate was adopted by the Commission at its meeting on 28 January 2004.

3. The membership of the Commission was as follows:

Hans Blix, Chairman
Dewi Fortuna Anwar
Alexei G. Arbatov
Marcos de Azambuja
Alyson J.K. Bailes
Jayantha Dhanapala
Gareth Evans
Patricia Lewis

¹ Weapons of Mass Destruction Commission, Final Report, 'Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms', Stockholm, Sweden, 1 June 2006, p. 11. Available at <http://www.wmdcommission.org>.

² Available at <http://www.wmdcommission.org>.

Masashi Nishihara
William J. Perry
Vasanth Raghavan
Cheikh Sylla
Prince El Hassan bin Talal
Pan, Zhenqiang

Short biographical statements are provided for the Commissioners on pages 208—211 of the Final Report. One member of the Commission, Gareth Evans, had also served as a member of the United Nations Secretary-General's High Level Panel on Threats, Challenges and Change³.

4. The Commission met ten times between its first meeting on 28—30 January 2004 and its final, tenth meeting on 3—5 March 2006. The Commission tasked a number of individual researchers, academic institutions and “think tanks” to produce papers and studies on issues related to the Commission's mandate. These varied in depth and scope, ranging from comprehensive studies to brief papers providing just a short description of the situation and some proposal/s on how to reduce the dangers from WMD. They served as food for thought and provide ideas for the ongoing discussion within the Commission. The forty papers and studies have been published on the Commission's website⁴ as pdf-files, but some will also be available in print. The Commission, however, point out that the fact that these papers and studies have been commissioned by the WMDC and have been published on the Commission's website does not necessarily indicate that the Commission agrees the findings of the studies and papers.

5. The Final Report entitled *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms* was issued on 1 June 2006 when the WMDC Chairman Dr. Hans Blix presented the Commission report to the United Nations Secretary-General Kofi Annan in New York. The report contains sixty concrete proposals on how the world could be freed of nuclear, biological and chemical weapons. The report was also handed over to Sweden's Foreign Minister Jan Eliasson, also president of the United Nations General Assembly and to the Secretary-General of the Conference on Disarmament, Mr Sergei Ordzhonikidze, Director-General of the United Nations in Geneva.

6. After receiving the report, an UN spokesman announced that the Secretary-General welcomed the release of the report of the Independent Weapons of Mass Destruction Commission. He stressed that this report will be an important contribution to the debate on disarmament and non-proliferation. The Secretary-General urged the international community to study the report and consider its recommendations.

7. Using a similar approach to that adopted for the analysis⁵ of the biological weapons related issues in the report of the United Nations Secretary-General's High Level Panel on Threats, Challenges and Change Report⁶ issued on 2 December 2004, this Bradford Review

³ United Nations General Assembly, *Note by the Secretary-General, A/59/565*, 2 December 2004.

⁴ Available at <http://www.wmdcommission.org>.

⁵ Graham S. Pearson, *The UN Secretary-General's High Level Panel: Biological Weapons Related Issues*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 14, May 2005. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁶ United Nations General Assembly, *Note by the Secretary-General, A/59/565*, 2 December 2004.

Conference Paper sets out the conclusions and recommendations relating to biological weapons in the WMD Commission' report and then analyses them from the point of view of the States Parties to the Biological and Toxin Weapons Convention. Consideration is given to how these should be addressed and taken forward at the BTWC Sixth Review Conference in 2006 by considering the WMDC recommendations in the light of the points made in Bradford Review Conference Paper No. 16⁷ of March 2006.

Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms

12. The Weapons of Mass Destruction Commission 227 page report⁸, *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms*, addresses nuclear, biological and chemical weapons together with delivery means, missile defences and weapons in space before going on to consider export controls, international assistance and non-governmental actors and then finally compliance, verification, enforcement and the role of the United Nations. After chapters that set the scene by considering 'reviving disarmament' and 'weapons of terror: threats and responses', separate chapters address nuclear, biological and toxin, and chemical weapons. Sixty recommendations are made; the first 30 being nuclear weapons related, 6 relating to biological and toxin weapons and 6 to chemical weapons, 4 to delivery means, 7 to export controls, international assistance and 7 to compliance, verification, enforcement and the role of the United Nations.

13. In this analysis, attention is focussed on the chapter relating to biological and toxin weapons and its recommendations as well as other more general recommendations that are also applicable to biological and toxin weapons. Particular attention is given to how the WMDC recommendations in regard to biological and toxin weapons might be taken forward at the Sixth Review Conference of the Biological and Toxin Weapons Convention to be held in Geneva on 20 November to 8 December 2006.

14. Hans Blix, the WMDC Chairman, in his preface to the Final Report accurately notes that:

In the ten years that have passed since the Canberra Commission report was published, global economic interdependence has accelerated. All states of the world have come to face the same environmental threats and risks of contagious diseases. There have been no serious territorial or ideological conflicts between the major military powers. Yet, amazingly, the climate for agreements on arms control and disarmament has actually deteriorated.

Efforts to consolidate global treaties, like the Nuclear Non-Proliferation Treaty and the Biological and Toxin Weapons Convention, have stagnated, ratifications of the Comprehensive Nuclear-Test-Ban Treaty remain missing, and negotiations have not even opened on the much needed treaty to stop the production of fissile material for weapons.

⁷ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁸ Weapons of Mass Destruction Commission, Final Report, *'Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms'*, Stockholm, Sweden, 1 June 2006, p. 11. Available at <http://www.wmdcommission.org>.

15. He goes on to identify some positive features against a ‘generally gloomy short-term outlook for arms control and disarmament’ that include:

The Security Council has recently adopted an important resolution obligating member states to adopt domestic legislation designed to prevent the proliferation of WMD. The precedent is constructive. But if the Council were to further use and develop its quasi-legislative potential, it would need to ensure that it acts with the broad support of the UN members. In the longer run this would entail making the Council more representative of the UN membership.

Lastly, in today’s rapidly integrating world community, global treaties and global institutions, like the UN, the IAEA and the OPCW, remain indispensable. Even with their shortcomings they can do some important things that states acting alone cannot achieve. They are therefore essential instruments in the hands of the state community to enhance security, to jointly operate inspection systems and to reduce the threat of weapons of mass destruction. Governments that have shown disenchantment with global treaties and institutions will inevitably return and renew their engagement.

16. The Committee’s recommendations are usefully envisaged as contributing to the practical agenda:

When there is a greater general readiness to return to a cooperative multilateral system in the sphere of arms control and disarmament, the Commission’s report, I hope, will contribute to the practical agenda. Some ideas and recommendations are new, but the Commission also espouses and argues in favour of some well-known existing proposals.

Biological and Toxin Weapons

17. Chapter 4 in some 12 pages addresses biological and toxin weapons. It starts by rightly pointing out that:

Biological warfare and bioterrorism involve the deliberate cause or spread of disease by biological agents, used as a weapon. Such weapons have the potential to cause immense human harm, panic and societal disruption. Although governments have long understood that eliminating the threats posed by these weapons will require extensive international cooperation, the need for such cooperation is more urgent today than ever.

It goes on to address why there is this additional urgency identifying a number of converging developments. Most of these are soundly based. However, one concern that is identified is:

Yet another concern arises from the possible misuse or negative impact of biodefence programmes, such as their potential to provide cover for the illegal development or maintenance of biological weapons-related expertise.

This is not very well expressed. The point is that outbreaks of disease occur in nature and it is important for all States to prepare defences against such outbreaks. Furthermore, planning for disease outbreaks whether natural or deliberate is best integrated. Consequently, the emphasis needs to be put onto transparency – such as the provision of information under the

BTWC Confidence-Building Measures – about programmes to counter disease outbreaks or intoxications. There is a danger that to use terminology such as “*biodefence*” or “*biological weapons-related expertise*” can result in a failure to pay attention to the equally relevant work to counter disease outbreaks whether in humans, animals or plants as States may say that they have no *biological weapons*-related programmes and have no *biodefence* activities. The sentence would have been more correctly expressed (changes shown in bold) as follows:

*Yet another concern arises from the possible misuse or negative impact of programmes **to counter outbreaks of disease in man, animals or plants, as these could** provide cover for the illegal development or maintenance of biological weapons-related expertise.*

18. The opening section correctly points out the importance of *striking a delicate balance between the public’s legitimate right to know and the duty to minimize the risk of causing collective disruption or panic*. It also rightly states *that it may be difficult in the early stages of an outbreak to determine whether a disease has been deliberately induced or has occurred naturally*.

19. In the next section ***Prohibition of Biological Weapons*** the report sets out the history leading up to the opening for signature of the BTWC. In the second paragraph it is stated that:

During the war, other states also conducted biological warfare research. After World War II, a number of biological warfare research programmes were undertaken, the largest of which were conducted by the Soviet Union and the United States – the diseases that were made to be used as weapons included anthrax, smallpox, plague and tularaemia.

This has incorrectly used the term “*research*” when it would have been correct to use the word programme in the first line and omit the word “*research*” in the second line as these were programmes aimed at the development and use of biological weapons and **NOT** research programmes.. It is important to be very careful in using the word “*research*” when addressing biological weapons issues as the BTWC does not prohibit research but does prohibit development, production and acquisition of biological and toxin weapons. It is also evident that the term ‘*research*’ can cover very different types of activities in different countries. It is generally wiser to use the word ‘programmes’ or “activities” and not “research” in this context. The above sentences in the report would have been much better rephrased (changes shown in bold) as:

*During the war, other states also conducted biological warfare **activities**. After World War II, a number of biological warfare programmes were undertaken, the largest of which were conducted by the Soviet Union and the United States – the diseases that were made to be used as weapons included anthrax, smallpox, plague and tularaemia.*

20. The final paragraph in this section addresses the requirements of Security Council Resolution 1540 and concludes with the following final sentence:

This in effect enhances Article IV of the BTWC, which calls on states parties to prohibit the acquisition of biological weapons by any person under their jurisdiction or control.

Article IV of the BTWC actually states:

Each State Party to this Convention shall, in accordance with its constitutional processes, take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.

21. Consequently the statement in the WMDC report that resolution 1540 effectively enhances Article IV of the BTWC is partially correct in that it enhances the element of Article IV related “*to prohibit*”. However, resolution 1540 does not address the second element in Article IV requiring that each State Party take necessary measures “*to prohibit and prevent*” [Emphasis added] which requires more than just to prohibit. As pointed out in Bradford Briefing Paper No. 6 (Second Series)⁹ in July 2003, by definition, the national measures taken must do more than merely prohibit the forbidden activities; they must also prevent them. This **prevention** requirement sets a high standard of effectiveness. It is indeed a very stringent criterion to attach to national implementing measures, but it is explicitly included in Article IV of the Convention and thus constitutes one of the obligations flowing from the Convention. It can usefully be regarded as a test of the effectiveness of legislation and other measures of a prohibitory nature in each State Party. If a State Party's legislative and other prohibitions are not strong enough to **prevent** the activities involving biological weapons which are defined in Article I of the Convention, they do not meet the high standard set by Article IV and that State Party accordingly risks falling short of full compliance with its international obligations under the Convention.

22. The States Parties to the BTWC at the Sixth Review Conference need therefore to address both elements of Article IV – *to prohibit and prevent* – and it would be desirable for the Review Conference in its Final Declaration to express the above as a common understanding of the significance of the prevention criterion set by Article IV and to recommend that States Parties take effective action by reviewing the effectiveness of their national measures to implement the prohibitions of the Convention in meeting the prevention criterion.

Prospects for the Future

Strengthening the Role of the Convention

23. The next section of the report addresses how the role of the BTWC might be strengthened. The second paragraph correctly emphasises that:

In the Commission's view, efforts to achieve some level of multilaterally agreed principles and powers should be pursued, although the complexities of the challenge make it necessary to counter biological-weapon threats from a variety of angles.

⁹ Graham S. Pearson & Nicholas A. Sims, *Maximizing the Benefits of the Inter Review Conference Process: I: National Implementing Legislation*, University of Bradford, Department of Peace Studies, Briefing Paper No. 6 (Second Series), July 2003, para 14. Available at <http://www.brad.ac.uk/acad/sbtwc>

It then goes on to accurately highlight a number of activities which the international community should focus on:

The international community should focus simultaneously on the following types of activity, all of which contribute to the overall regime for control of the hostile uses of the life sciences.

- *strengthening and effective enforcement of international agreements, including monitoring and reporting*
- *increasing public health awareness combined with enhanced health and safety regulations, measures and resources*
- *controls on transfers of material and equipment*
- *norm building among all those engaged in the life sciences and in society as a whole*
- *public information*
- *counter-terrorism intelligence and tools.*

24. The next couple of paragraphs set out how these should be taken forward and end with a sentence:

However, a key to progress worldwide would be for the US to commit itself actively to international approaches and instruments.

Whilst undoubtedly true, the statement needs to be more widely expressed as all states need to commit themselves actively to international approaches and instruments. It is very true that if the United States is actively engaged in promoting international approaches and instruments then many other states will follow such a lead. However, as consensus requires all states to agree, all need to commit themselves actively to international approaches and instruments.

25. This section concludes with a final paragraph that states accurately and correctly;

The last full review of the operation of the BTWC was in 1991. In view of developments since then, the parties need to carry out a full review during the 2006 Review Conference. It is crucially important for the BTWC states parties to use the Sixth Review Conference, to be held in late 2006, to reassert the Convention's role as the central component of the overall regime and agree on concrete measures to implement it. The Commission's recommendations aim at making maximum use of this opportunity.

The Commission is to be complimented for focussing as stated in the final sentence of this section on recommendations that make maximum use of the opportunity at the Sixth Review Conference from 20 November to 8 December 2006 of reasserting the BTWC's central role in the overall regime and to agree on concrete measures to implement it.

26. **Recommendation 31.** The first recommendation of the Commission in the field on biological and toxin weapons is at the end of this section and is:

WMDC RECOMMENDATION 31

All states not yet party to the Biological and Toxin Weapons Convention should adhere to the Convention. The states parties to the Convention should launch a campaign to achieve universal adherence by the time of the Seventh Review Conference, to be held in 2011.

This recommendation is strongly supported. Bradford Review Conference Paper No. 16¹⁰ in March 2006 included the following paragraphs on this subject:

“27. At successive Review Conferences the States Parties have called upon States which have not yet ratified or acceded to the Convention to do so without delay. Thus at the Fourth Review Conference the Final Declaration¹¹ under Article XIV:

1. *The Conference notes with satisfaction that a number of States have acceded to the Convention since the Third Review Conference.*
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.*
4. *The Conference particularly welcomes regional initiatives that would lead to wider accession to the Convention.*

In addition, the resolution adopted by the General Assembly without a vote on 8 December 2005 as A/RES/60/96 included as its first operative paragraph:

1. *Notes with satisfaction the increase in the number of States parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, reaffirms the call upon all signatory States that have not yet ratified the Convention to do so without delay, and calls upon those States that have not yet signed the Convention to become parties thereto at an early date, thus contributing to the achievement of universal adherence to the Convention.*

28. There is therefore a widespread and continuing recognition by all States Parties of the importance of achievement of universal adherence to the Convention. However, the rate at which States have become Parties to the Convention has been very slow during recent years:

¹⁰ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

¹¹ United Nations, Fourth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 25 November – 6 December 1996. *Final Document*, BWC/CONF.IV/9, 1996. Available at: <http://www.opbw.org>

	October 2001	October 2002	November 2003	December 2004	June 2005
Number of States Parties	144	146	151	153	155
Number of Signatory States	18	17	16	16	16

29. This slow rate of approaching universality is all the more pronounced when a comparison is made with the Chemical Weapons Convention which entered into force on 29 April 1997. At its First Review Conference¹² in April/May 2003, the States Parties in regard to universality of the CWC agreed that:

The First Review Conference recommended that the Council, with the cooperation of the Secretariat, develop and implement a plan of action to further encourage, in a systematic and coordinated manner, adherence to the Convention and to assist States ready to join the Convention in their national preparations to implement it [Emphasis added] (RC-1/5, para.7.18).

The background paper¹³ provided by the OPCW on adherence to the CWC for the First Review Conference provided a summary of the participation in the Convention:

Date	Number of States Parties	Number of States Parties for which Entry into Force was pending	Signatory States not Party	Non-Signatory States not Party
29 April 1997	87	0	78	28
29 April 1998	107	1	60	25
29 April 1999	121	0	48	24
29 April 2000	132	3	37	21
29 April 2001	143	0	31	19
29 April 2002	143	0	31	19

30. Since adoption of the Action Plan on Universality following the CWC Review Conference, the number of States Parties has increased¹⁴ significantly:

¹² Organisation for the Prohibition of Chemical Weapons (OPCW), *Report of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (First Review Conference) 28 April – 9 May 2003*, RC-1/5, 9 May 2003. Available at <http://www.opcw.org>.

¹³ Organisation for the Prohibition of Chemical Weapons (OPCW), *Background Paper on Universal Adherence to the Chemical Weapons Convention*, RC-1/S/5, 25 April 2003. Available at <http://www.opcw.org>.

¹⁴ Scott Spence, *Achieving Effective Action on Universality and National Implementation: The CWC Experience*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 13, April 2005. Available at <http://www.brad.ac.uk/acad/sbtwc>

	May 2003	October 2003	June 2004	February 2005	March 2006
Number of States Parties	151	154	164	167	178
Number of States Parties for which Entry into Force was pending	2	3	0	0	0
Signatory States not Party	25	22	18	16	8
Non-Signatory States not Party	16	15	12	11	8

31. It is thus evident that in March 2006, the States Parties to the CWC are some 178, over twenty more than the number of States Parties to the BTWC. There is consequently a window of opportunity at the forthcoming Sixth Review Conference in November/December 2006 for the States Parties to the BTWC to mount an initiative to encourage all those States who have acceded to the CWC to also accede to the BTWC. Rather than just adopting an exhortation, as at previous Review Conferences, it would be timely to agree to actually do something to achieve the objective of universality. Whilst this might be called an Action Plan there might be advantage in adopting some different terminology such as an achievement timeline with the objective of reaching 180 States Parties to the BTWC no later than the Seventh Review Conference in 2011. The States Parties at the Sixth Review Conference in agreeing this achievement timeline need to also agree on how the initiative is to be progressed and how the progress towards this objective will be reported regularly to the States Parties. Such a progress report would be appropriate at future annual Meetings of the States Parties at which agreement could be reached on additional action should that be necessary.”

27. Bradford Review Conference Paper No. 16 recommended that the States Parties agree the objective of reaching 180 States Parties to the BTWC no later than the Seventh Review Conference in 2011. The WMDC recommendation 31 urges adoption of a campaign to achieve universal adherence by 2011. This more ambitious target is welcomed and States Parties are encouraged to adopt this goal at the Sixth Review Conference.

National Implementation

28. The WMDC report next addresses national implementation. It correctly emphasises that *the effectiveness of the prohibitions of the BTWC depends on the full national implementation of the Convention through national legislation and regulations.* It then goes on to recommend that *interested governments should promote a network of designated national authorities or functional focal points.*

29. This section points out the important role of Confidence-Building Measures but then, unfortunately, as already pointed out earlier in paragraph 17 above, the report uses language about “*biological weapon-related matters*” in saying that:

Confidence-building measures (CBMs) can play an important role. The second BTWC Review Conference, held in 1986, agreed that parties should make annual declarations on various biological weapon-related matters in an effort to increase transparency and build confidence. These were revised and expanded in 1991, at the third Review Conference.

30. The actual CBMs are focused on various aspects of life science activities. Namely, using the language of the Third Review Conference which agreed the expanded measures in 1991, they are:

Confidence-building measure "A":

- *Part 1: Exchange of data on research centres and laboratories;*
- *Part 2: Exchange of information on national biological defence research and development programmes.*

Confidence-building measure "B":

- *Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins*

Confidence-building measure "C":

- *Encouragement of publication of results and promotion of use of knowledge.*

Confidence-building measure "D":

- *Active promotion of contacts.*

Confidence-building measure "E":

- *Declaration of legislation, regulations and other measures.*

Confidence-building measure "F":

- *Declaration of past activities in offensive and/or defensive biological research and development programmes*

Confidence-building measure "G":

- *Declaration of vaccine production facilities*

It can be seen clearly that of these seven CBMs only one (CBM “F”) is actually specifically related to biological weapons. One of the others (CBM “A” Part 2) is related to biological defence programmes – which should, as pointed out previously in paragraph 17, be addressed

as programmes to counter outbreaks of disease in humans, animals or plants. All the other CBMs are related to general life sciences activities.

31. The WMDC report would have been wiser to have used language that made this clear (changes in bold):

*Confidence-building measures (CBMs) can play an important role. The second BTWC Review Conference, held in 1986, agreed that parties should make annual declarations on various **life sciences-related** matters in an effort to increase transparency and build confidence. These were revised and expanded in 1991, at the third Review Conference.*

The use of misleading language is particularly regretted as it provides an excuse to some States Parties for failing to submit the politically agreed annual CBMs by saying that they have no biological weapons-related activities.

32. **Recommendation 32.** This section on national implementation concludes with the second recommendation of the Commission in the field on biological and toxin weapons which is:

WMDC RECOMMENDATION 32

To achieve universal adoption of national legislation and regulations to implement the Biological and Toxin Weapons Convention completely and effectively, the states parties should offer technical assistance and promote best-practice models of such legislation. As a part of the confidence-building process and to promote transparency and harmonization, all states parties should make annual biological-weapon-related national declarations and make them public.

The first sentence of this recommendation is strongly supported and the second sentence is likewise, once modified so as to be accurate and state:

*As a part of the confidence-building process and to promote transparency and harmonization, all states parties should make annual **life sciences-related** national declarations and make them public.*

33. Bradford Review Conference Paper No. 16¹⁵ in March 2006 included the following paragraphs on the subject of national implementation:

“32. At successive Review Conferences the States Parties have reaffirmed the importance of Article IV of the Convention. Thus at the Fourth Review Conference the Final Declaration¹⁶ under Article IV stated:

¹⁵ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

¹⁶ United Nations, Fourth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 25 November – 6 December 1996. *Final Document*, BWC/CONF.IV/9, 1996. Available at: <http://www.opbw.org>

1. *The Conference underlines the importance of Article IV. It reaffirms the commitment of States Parties to take the necessary national measures under this Article, in accordance with their constitutional processes. These measures are to ensure the prohibition and prevention of the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention anywhere within their territory, under their jurisdiction or under their control, in order to prevent their use for purposes contrary to the Convention. The States Parties recognize the need to ensure, through the review and/or adoption of national measures, the effective fulfilment of their obligations under the Convention in order, *inter alia*, to exclude use of biological and toxin weapons in terrorist or criminal activity.*

2. *The Conference notes those measures already taken by a number of States Parties in this regard, for example the adoption of penal legislation, and reiterates its call to any State Party that has not yet taken any necessary measures to do so immediately, in accordance with its constitutional processes. Such measures should apply within its territory, under its jurisdiction or under its control anywhere. The Conference invites each State Party to consider, if constitutionally possible and in conformity with international law, the application of such measures also to actions taken anywhere by natural persons possessing its nationality.*

33. In addition, national implementation was one of the issues considered during the 2003 to 2005 intersessional process¹⁷ when the topic in 2003 was:

- i. *the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;*

The outcome of the Meeting of States Parties in 2003 was to agree a short report¹⁸ on both of the topics saying:

At the Meeting of States Parties, States Parties noted that notwithstanding the differing legal and constitutional arrangements among the 151 States Parties to the Convention, States have adopted similar basic approaches and share common principles. The States Parties stressed the need for undertaking activities at the national level in keeping with their obligations and responsibilities to strengthen and implement the Convention. The States Parties agreed, to that end, on the value of the following:

To review, and where necessary, enact or update national legal, including regulatory and penal, measures which ensure effective

¹⁷ United Nations, Fifth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 19 November – 7 December 2001 and 11 – 22 November 2002. *Final Document*, BWC/CONF.V/17, 2002. Available at: <http://www.opbw.org>

¹⁸ United Nations, Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, First Meeting, Geneva, 10 – 14 November 2003. *Report of the Meeting of States Parties*, BWC/MSP/2003/4 (Vol. 1), 24 November 2003. Available at: <http://www.opbw.org>

implementation of the prohibition of the Convention, and which enhance effective security of pathogens and toxins.

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

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

States Parties considered that agreement on the value of these measures discussed at the Meeting constitutes an essential effort to facilitate more effective implementation and enforcement of the Convention, as well as providing a basis for review of progress at the 2006 Review Conference.

34. In addition, national implementation measures have been the subject of an Action Plan undertaken by the States Parties to the CWC following their First Review Conference in 2003. At that Review Conference the States Parties agreed¹⁹:

*The First Review Conference **called upon** States Parties that have not already done so to inform the OPCW by the next regular session of the Conference of the status of their adoption of the legislative and administrative measures necessary for or taken by them to implement the Convention, of any problems they have encountered, and of any assistance they require. **Having considered** the importance of national implementation measures for the proper functioning of the Convention, and **having reviewed** the activities undertaken by the States Parties as well as the Secretariat, the First Review Conference...*

(h) agreed to develop, at its next regular session, a plan of action based on a recommendation from the Council regarding the implementation of Article VII obligations, with the objective of fostering the full and effective implementation of the Convention by all States Parties. [Emphasis added] (RC-1/5, para.7.83).

35. Bradford Review Conference Paper No. 13²⁰ described the action being taken by the OPCW and a further update was published²¹ in the *CBW Conventions Bulletin* of September/December 2005. The situation can be summarised as follows:

¹⁹ Organisation for the Prohibition of Chemical Weapons (OPCW), Report of the First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (First Review Conference) 28 April – 9 May 2003, RC-1/5, 9 May 2003. Available at <http://www.opcw.org>.

²⁰ Scott Spence, *Achieving Effective Action on Universality and National Implementation: The CWC Experience*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 13, April 2005. Available at <http://www.brad.ac.uk/acad/sbtwc>

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

This shows that even after the Action Plan, although almost two thirds of the States Parties to the CWC had submitted information on their national implementation to the OPCW, only about one third of the States Parties had succeeded in adopting legislation that covered the areas key to the enforcement of the CWC.

36. The situation in regard to the adoption of national measures to implement the BTWC, as required by Article IV of the Convention which requires:

Each State Party to this Convention shall, in accordance with its constitutional processes, take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.

is much less certain than that for the CWC. There is, however, no basis on which to conclude that the situation is any better and it is likely to be worse.

37. There is widespread recognition of the importance of all States Parties adopting national legislation *to prohibit and prevent the development, production, stockpiling, acquisition, or retention of the agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention.* The adoption of Security Council Resolution 1540 (2004)²² has also provided additional impetus for all States – and not solely the States Parties to the BTWC – to adopt national legislation. Operative paragraph 2 requires:

²¹ Santiago Oñate, Ralf Trapp and Lisa Tabassi, *Decision on the Follow-up to the OPCW Action Plan on Article VII: Ensuring the Effective Implementation of the Chemical Weapons Convention*, CBW Conventions Bulletin, Issue No 69 + 70, September/December 2005, pp. 5-10.

²² United Nations Security Council, *Resolution 1540 (2004) Adopted by the Security Council at its 4956th meeting, on 28 April 2004, S/RES/1540 (2004)*, 28 April 2004.

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

It would therefore be timely – and bring significant benefits to all States Parties – for the States Parties to the BTWC at the forthcoming Sixth Review Conference in November/December 2006 to do more than simply adopt an exhortation along the lines of those agreed previously at Review Conferences. There is a need for action to adopt national legislation to counter the continuing threat posed by biological and toxin weapons whether by States or by sub-State actors. It is, however, appreciated that the action plan adopted by the OPCW has required significant resources from the Technical Secretariat and comparable resources are currently not available for the States Parties to the BTWC.

38. As recognised by SCR 1540 (2004) in its seventh operative paragraph, States may require assistance to implement this resolution:

7. Recognizes that some States may require assistance in implementing the provisions of this resolution within their territories and invites States in a position to do so to offer assistance as appropriate in response to specific requests to the States lacking the legal and regulatory infrastructure, implementation experience and/or resources for fulfilling the above provisions;

Consequently, at the Sixth Review Conference particular attention should be given to seeking a commitment from those States Parties in a position to do so to provide assistance to States Parties requiring such assistance in developing and adopting national implementation legislation.

39. Although there may be some consideration to whether to adopt an action plan, it would be wise to adopt different terminology as the resources provided by the OPCW to support the CWC Article VII national implementation action plan will not be available. It is suggested that an achievement timeline which sets a target for two thirds of the States Parties to the BTWC to have adopted national implementation legislation by the time of the Seventh Review Conference would be an effective and desirable outcome. It would be greatly aided by one or more States Parties undertaking to provide resources to facilitate the adoption of legislation by States Parties as well as to monitor and report to the States Parties annually on progress towards this target. Such a progress report would be appropriate at future annual Meetings of the States Parties at which agreement could be reached on additional action should that be necessary.”

34. Bradford Review Conference Paper No. 16²³ in March 2006 also addressed the subject of the Confidence-Building Measures:

“43. The States Parties agreed at the Second Review Conference in 1986 to submit information annually under Confidence Building Measures (CBMs). The CBMs were reviewed and extended at the Third Review Conference in 1991²⁴:

In accordance with the decision of the Second Review Conference, and taking into account views expressed concerning the need to strengthen the implementation of the provisions of Article V, the Conference reviewed the effectiveness of the provisions in Article V for consultation and cooperation and of the cooperative measures agreed in the Final Declaration of the Second Review Conference, and considered whether or not further actions were called for to create further cooperative measures. The Conference came to the following conclusions and recommendations:

The Conference notes the importance of the confidence-building measures agreed upon at the Second Review Conference, as well as the modalities elaborated by the Ad Hoc Meeting of the Scientific and Technical Experts from States parties to the Convention held in 1987. The Conference recognizes the exchange of information that took place on this agreed basis between 1987 and 1991. The Conference urges all States parties to submit information to future rounds of information exchange.

With a view to promoting increased participation and strengthening further the exchange of information, the Conference agrees to reaffirm those measures established at the Second Review Conference with the following improvements: to add a declaration on "Nothing to declare" or "Nothing new to declare"; to amend and extend the exchange of data on research centres and laboratories; to amend the exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins; to amend the measure for the active promotion of contacts; and to add three new confidence-building measures entitled "Declaration of legislation, regulations and other measures"; "Declaration of past activities in offensive and/or defensive biological research development programmes"; and "Declaration of vaccine production facilities".

Accordingly, the Conference, mindful of the provisions of Article V and Article X, and determined to strengthen the authority of the Convention and to enhance confidence in the implementation of its provisions, agrees that the States parties are to implement, on the basis of mutual cooperation, the following measures set out in the annex to this Final Declaration, in order to prevent or reduce the occurrence of ambiguities, doubts and suspicions, and

²³ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

²⁴ United Nations, Third Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 9 – 27 September 1991. *Final Document*, BWC/CONF.III/23, 1991. Available at: <http://www.opbw.org>

in order to improve international cooperation in the field of peaceful bacteriological (biological) activities:

1. Declaration form on "Nothing to declare" or "Nothing new to declare"

2. Confidence-building measure "A":

- Part 1: Exchange of data on research centres and laboratories;

- Part 2: Exchange of information on national biological defence research and development programmes.

3. Confidence-building measure "B":

- Exchange of information on outbreaks of infectious diseases and similar occurrences caused by toxins.

4. Confidence-building measure "C":

- Encouragement of publication of results and promotion of use of knowledge.

5. Confidence-building measure "D":

- Active promotion of contacts.

6. Confidence-building measure "E":

- Declaration of legislation, regulations and other measures.

7. Confidence-building measure "F":

- Declaration of past activities in offensive and/or defensive biological research and development programmes.

8. Confidence-building measure "G":

- Declaration of vaccine production facilities.

The Conference also agrees that the exchange of information and data, using the revised forms, be sent to the United Nations Department for Disarmament Affairs no later than 15 April on an annual basis and should cover the previous calendar year.

44. At the Fourth Review Conference²⁵, the States Parties did not carry out a detailed review of the CBMs as they were aware that the Ad Hoc Group was then engaged in considering the incorporation of existing and further enhanced CBMs into a regime to strengthen the Convention:

5. *The Conference notes the background information document prepared by the United Nations Secretary-General providing data on the participation of States Parties in the agreed confidence-building measures since the Third Review Conference. The Conference welcomes the exchange of information carried out under the confidence-building measures, and notes that this has contributed to enhancing transparency and building confidence. The Conference recognizes that participation in the confidence-building measures since the last Review Conference has not been universal, and that not all responses have been prompt or complete. In this regard, the Conference also recognizes the technical difficulties experienced by some States Parties with respect to preparing CBM responses. In this regard, the Conference urges all States Parties to complete full and timely declarations in the future. The Conference notes that the Ad Hoc Group of States Parties established by the Special Conference in 1994 is, as part of its continuing work, considering the incorporation of existing and further enhanced confidence-building and transparency measures, as appropriate, in a regime to strengthen the Convention.*

45. At the Fifth Review Conference, a number of useful proposals to strengthen the CBMs were submitted by South Africa²⁶. These are well worth further consideration, along with other ideas for improving the responses from the States Parties in their annual submissions of CBM returns, at the forthcoming Sixth Review Conference in November/December 2006. Consideration needs to be given to a review of the existing CBMs and their format; proposals for new CBMs; provision for electronic submission and circulation; collation, translation and elaboration procedures; and the provision of assistance, where requested. It needs, however, to be considered whether there will be sufficient time at the Sixth Review Conference to consider the details of the existing CBMs and how they might be improved. It should be recalled that at the Second Review Conference in 1986 the States Parties agreed to hold an ad hoc meeting in 1987 of scientific and technical experts from States Parties *to finalise the modalities for the exchange of information and data by working out, inter alia, appropriate forms to be used by States Parties for the exchange of information agreed to in this Final Declaration, thus enabling States Parties to follow a standardised procedure.*

²⁵ United Nations, Fourth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 25 November – 6 December 1996. *Final Document*, BWC/CONF.IV/9, 1996. Available at: <http://www.opbw.org>

²⁶ South Africa, Fifth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 19 November – 7 December 2001. *Strengthening Confidence-Building Measures Working Paper by South Africa*, BWC/CONF.V/COW/WP.1, 16 November 2001. Available at: <http://www.opbw.org>

46. There would be merit in the States Parties at the Sixth Review Conference agreeing that a Meeting of States Parties should be held in 2007 to consider and decide how to improve the effectiveness of the CBM process with this Meeting being prepared for by an earlier two week Meeting of Experts. The Meeting of Experts on CBMs to prepare for the annual Meeting would provide an opportunity for States Parties to share best practice in compiling annual CBM returns and identifying how the effectiveness of the CBM process might best be improved. It is evident from the experience gained during the period from 2003 to 2005 that the process of annual one week Meetings of States Parties prepared by an earlier two week Meeting of Experts has worked well and been effective in achieving a good exchange of information.”

35. Recommendation 32 made by the WMDC has consequently been further developed by the Bradford Review Conference paper No. 16 in regard to both national implementation and Confidence-Building Measures.

Institutional Deficit

36. The WMDC report in its next section then addresses the institutional deficit of the BTWC. Although the report notes that *over the years there have been various attempts to address this institutional deficit* it fails to mention the near-miss at the Third Review Conference when on the final day, 27 September 1991, proposals for a two-person secretariat support unit collapsed. Nicholas Sims has recently summarised the remedies for the institutional deficit of the BTWC in Bradford Review Conference Paper No. 12²⁷ in March 2005.

37. **Recommendations 33 and 34.** The WMDC report at the end of this section makes its third and fourth recommendations in the field of biological and toxin weapons:

WMDC RECOMMENDATION 33

States parties to the Biological and Toxin Weapons Convention should enhance the investigatory powers of the UN Secretary-General, ensuring that the Secretary-General's office can rely upon a regularly up-dated roster of experts and advice from the World Health Organization and a specialist unit, modelled on the United Nations Monitoring, Verification and Inspection Commission, to assist in investigating unusual outbreaks of disease and allegations of the use of biological weapons.

WMDC RECOMMENDATION 34

States parties to the Biological and Toxin Weapons Convention should establish a standing secretariat to handle organizational and administrative matters related to the treaty, such as Review Conferences and expert meetings.

38. There is no background to WMDC Recommendation 33 in this section of the WMDC report apart from a mention of “*the UN Secretary-General's mechanism to investigate allegations of breaches of the 1925 Geneva Protocol;*” which is listed as an example of an

²⁷ Nicholas A. Sims, *Remedies for the Institutional Deficit of the BTWC: Proposals for the Sixth Review Conference*, Review Conference Paper No. 12, March 2005, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

attempt to address the institutional deficit. However the subject of the investigation of the *alleged use of biological or toxin weapons or suspicious outbreaks of disease* was one of the topics considered by the States Parties to the BTWC at the annual Meeting of Experts and subsequent Meeting of States Parties in 2004. Consequently, the Sixth Review Conference is expected to consider effective action on this topic – and hence the WMDC recommendation is timely.

39. Both of these recommendations are strongly supported. However, Recommendation 33 is ambiguous in its wording that *the Secretary-General's office can rely upon a regularly updated roster of experts and advice from the World Health Organization and a specialist unit*, as it is unclear as to where the experts are to come from: from member States of the United Nations (as in the present, now somewhat dated, arrangements) or from the World Health Organization or from the WHO and a specialist unit modeled on UNMOVIC. It would be clearer and more effective if the recommendation were to be reworded as follows in which new wording is in bold:

*States parties to the Biological and Toxin Weapons Convention should enhance the investigatory powers of the UN Secretary-General, ensuring that the Secretary-General's office can rely upon a regularly up-dated roster of **trained experts drawn from member States** and advice from the World Health Organization, **the World Organization for Animal Health and the Food and Agriculture Organization together with** a specialist unit, modelled on the United Nations Monitoring, Verification and Inspection Commission, to assist in investigating unusual outbreaks of disease and allegations of the use of biological weapons.*

An important point is that a key lesson²⁸ of both UNSCOM and particularly, UNMOVIC, is the importance of a roster of trained experts. It is also important that because attacks of biological weapons may be against humans, animals and plants that advice is sought from the WHO, OIE and FAO.

40. Bradford Review Conference Paper No. 16²⁹ in March 2006 included the following paragraphs on the subject of investigations of the alleged use of biological or toxin weapons:

“Article VI Investigations

52. The States Parties at the Fourth Review Conference agreed in their Final Declaration³⁰ under Article VI that:

2. *The Conference reaffirms the importance of Article VI, which, in addition to the procedures contained in Article V, provides that any State Party which finds that any other State Party is acting in breach of its*

²⁸ Graham S. Pearson, *The Search for Iraq's Weapons of Mass Destruction; Inspection, Verification and Non-Proliferation*, Palgrave Macmillan, 2006.

²⁹ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

³⁰ United Nations, Fourth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 25 November – 6 December 1996. *Final Document*, BWC/CONF.IV/9, 1996. Available at: <http://www.opbw.org>

obligations under the Convention may lodge a complaint with the United Nations Security Council. The Conference notes that the provisions of Article VI will be taken into account, as appropriate, for any future verification regime resulting from the consideration by the Ad Hoc Group of a system of measures to promote compliance with the Convention. The Conference emphasizes the provision of Article VI that such a complaint should include all possible evidence confirming its validity. It stresses that, as in the case of the implementation of all the provisions and procedures set forth in the Convention, the procedures foreseen in Article VI should be implemented in good faith within the scope of the Convention.

53. In addition, the Final Declaration also included:

4. The Conference recalls, in this context, United Nations Security Council resolution 620 (1988), which at the time encouraged the United Nations Secretary-General to carry out prompt investigations, in response to allegations brought to its attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that could entail a violation of the 1925 Geneva Protocol or of any other applicable rule of international treaty or customary law. The Conference also recalls the technical guidelines and procedures contained in Annex I of United Nations document A/44/561 to guide the United Nations Secretary-General on the timely and efficient investigation of reports of the possible use of such weapons. The States Parties reaffirm their agreement to consult, at the request of any State Party, regarding allegations of use or threat of use of bacteriological (biological) or toxin weapons and to cooperate fully with the United Nations Secretary-General in carrying out such investigations. The Conference stresses that in the case of alleged use the United Nations is called upon to take appropriate measures expeditiously, which could include a request to the Security Council to consider action in accordance with the Charter.

54. In addition, the States Parties at their annual meetings in 2004 considered the topic:

iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

and in their Report³¹ they agreed:

20. On the mandate to discuss, and promote common understanding and effective action on enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease, the States Parties recognised that:

³¹ United Nations, Meeting of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Second Meeting, Geneva, 6 – 10 December 2004. *Report of the Meeting of States Parties*, BWC/MSP/2004/3, 14 December 2004. Available at: <http://www.opbw.org>

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

b) States Parties' national preparedness and arrangements substantially contribute to international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

c) the Secretary-General's investigation mechanism, set out in A/44/561 and endorsed by the General Assembly in its resolution A/Res/45/57, represents an international institutional mechanism for investigating cases of alleged use of biological or toxin weapons.

21. The States Parties consequently agreed on the value of:

a) continuing to develop their own national capacities for response, investigation and mitigation, in cooperation with the relevant international and regional organisations, and, if in a position to do so, assisting and encouraging, with the necessary agreement, other States Parties to do the same;

b) the Sixth Review Conference considering, inter alia, the further development of current procedures for the provision of assistance, by those in a position to do so, to States Parties in cases of alleged use of biological weapons or suspicious outbreaks of disease.

55. As reported³² at the time, the draft outcome paper for the December 2004 Meeting of States Parties had initially contained the following:

(b) that consideration should be given to reviewing the Secretary-General's mechanism for investigation of cases of alleged use of biological and toxin weapons and to invite the Secretary-General to report to the Sixth Review Conference on any actions that may be taken in this regard on the basis of consideration by the United Nations General Assembly.

However, consensus could not be found on this language or on a development thereof. Consequently, all consideration has to be deferred to the Sixth Review Conference.

56. At the Sixth Review Conference, it is recommended that consideration be given to two aspects relating to Article VI Investigations. The first is that the States Parties should consider developing the modalities of the procedure implicit in the first paragraph of Article VI of the Convention which states that:

(1) Any State Party to this convention which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Convention

³² Graham S. Pearson, *The Biological Weapons Convention Meeting of States Parties*, in *The CBW Conventions Bulletin*, Issue no 66, December 2004, pp. 21-34. Available at <http://www.sussex.ac.uk/Units/spru/hsp>

may lodge a complaint with the Security Council of the United Nations. Such a complaint should include all possible evidence confirming its validity, as well as a request for its consideration by the Security Council.

(2) Each State Party to this Convention undertakes to cooperate in carrying out any investigation which the Security Council may initiate, in accordance with the provisions of the Charter of the United Nations, on the basis of the complaint received by the Council. The Security Council shall inform the States Parties to the Convention of the results of the investigation.

The modalities of the procedure implicit in the first paragraph might be elaborated along the following lines:

1. The State Party lodging a complaint should identify which obligation under the Convention it considers has been breached and in what manner the breach has occurred.

2. The State Party lodging the complaint should compile a report containing all possible evidence relating to the alleged breach of obligations and the evidence therein should be validated to the extent possible.

3. The State Party lodging a complaint should implement the procedure as soon as possible after the alleged breach of the obligations under the Convention has taken place.

57. Secondly, the States Parties should recognise that it is in the interests of all States Parties to the BTWC to ensure that any investigation that may be carried out is both effective and credible. Consequently, the States Parties should consider what steps are needed to ensure that the Secretary-General's mechanism for the investigation of cases of alleged use of biological and toxin weapons would indeed be effective and credible. There has been significant developments since the Secretary-General's mechanism was first set up – for example, the OPCW has set up its mechanism for investigation of alleged use of chemical weapons and UNMOVIC has developed its procedures for investigations. In both cases, the importance of trained experts and of accredited laboratories that have validated procedures for the analysis of samples have been recognised. The Secretary-General's mechanism has neither and is therefore seriously lagging in regard to the current internationally expected standard. “

41. Bradford Review Conference Paper No. 16³³ in March 2006 included a short paragraph on the subject of institutional support:

“Institutional Support

66. The States Parties at the Sixth Review Conference should consider agreeing to the setting up of a small interim institutional support to facilitate the annual meetings

³³ Graham S. Pearson & Nicholas A. Sims, *Successful Outcomes for the BTWC Sixth Review Conference*, Review Conference Paper No. 16, March 2006, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

held during 2007 to 2011 between the Sixth and the Seventh Review Conferences and also to help States Parties with implementation. “

42. Both WMDC recommendations 33 and 34 have thus been addressed also in Bradford Review Conference Paper No. 16 with the topic of investigations of alleged use being developed further.

Implementation of the Convention

43. The next section of the WMDC report addresses the implementation of the Convention. The first paragraph correctly points out the need to strengthen the effectiveness and improve the implementation of the Convention and to make a fresh start:

States parties should also agree to consider ways and means to strengthen the effectiveness and improve the implementation of the BTWC by adopting a substantive programme of work for the five years following the 2006 Review Conference, starting with regular annual meetings from 2007. It is time for all states parties to make a fresh start and not be distracted by previous disagreements.

44. The subsequent paragraphs include sentences that are not clearly expressed and reflect a lack of expert knowledge in the field. Thus the second paragraph in this section states:

As noted above, nowadays the transport of goods and relative ease of international travel mean that an outbreak of a transmissible disease in one place could spread quickly throughout the world. Inevitably, scientific advancements in biotechnology and the widespread availability of facilities capable of producing biological agents make it more difficult to prevent the development of biological weapons and complicate efforts to ensure their non-production and the elimination of stocks.

The first sentence accurately reflects the current situation. The second confuses biological weapons and life sciences capabilities and appears to fail to recognise the significance of the general purpose criterion which was mentioned in the second section of the WMDC report entitled *Prohibition of Biological Weapons* which noted that:

The Convention embodies the principle known as the general purpose criterion under which all relevant activities are prohibited unless they can be justified for the peaceful purposes permitted under the Convention, including justifications relating to types and quantities of materials being used for prophylactic, protective or other peaceful purposes.

The general purpose criterion is embodied in Article I of the Convention which sets out the fundamental prohibition as being as follows:

Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

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

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

This makes it clear that each State Party has undertaken never in any circumstances to have microbial or other biological agents or toxins *of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes.*

45. The WMDC sentence also refers to *the elimination of stocks* which is somewhat surprising given that no State Party to the BTWC, unlike the situation in regard to the Chemical Weapons Convention (CWC), has declared any stocks of biological weapons or agents.

46. The WMDC report statement would consequently have been better recast along the following lines (changes shown in bold):

*. Inevitably, scientific advancements in biotechnology and the widespread availability of facilities capable of producing biological materials **make transparency of such activities and their declaration by all States Parties in the annual Confidence-Building Measures all the more important as well as emphasizing the need to further strengthen the effectiveness and improve the implementation of the Convention.***

47. The first sentence in the next paragraph in this section calls for *putting in place measures for early discovery and for alerting the public quickly and effectively.* It is not clear what is meant by *early discovery*: it would have been clearer and more accurate to have referred to *putting in place measures for early **identification of a deliberate outbreak.***

48. The fifth paragraph in this section again brings in a confusing mention of *stocks* in the phrase *plus urgent international cooperation to destroy left-over and unwanted stocks.* As mentioned above, no State Party has declared any stocks and this clause appears to reflect the situation in the CWC where there are indeed *left-over and unwanted stocks* of **chemical** weapons.

49. **Recommendation 35.** This section concludes with the fifth recommendation of the WMDC in the field of biological and toxin weapons:

WMDC RECOMMENDATION 35

Governments should pursue public health surveillance to ensure effective monitoring of unusual outbreaks of disease and develop practical methods of coordinating international responses to any major event that might involve bioweapons. They should strengthen cooperation between civilian health and security-oriented authorities, nationally, regionally and worldwide, including in the framework of the new International Health Regulations of the World Health Organization. Governments should also review their national biosafety and biosecurity measures to protect health and the environment from the release of biological and toxin materials. They should harmonize national biosecurity standards.

This recommendation can be strongly supported although the third line would have been clearer and better expressed had it referred to:

... international responses to any major **outbreaks whether natural or deliberate**.

Such an approach is the one recommended by the World Health Organization in its advice *Public health response to biological and chemical weapons: WHO Guidance*³⁴.

50. No background is given in this section of the WMDC report to some of the elements of this recommendation such as those relating to national biosafety and biosecurity measures and the harmonizing of national biosecurity standards. They do, however, reflect considerations at the annual Meeting of Experts and the subsequent Meeting of States Parties in 2003 when the topics considered were:

- i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;*
- ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;*

The outcome of the Meeting of States Parties in 2003 was much less focussed than from the subsequent annual Meetings in 2004 and 2005. Nevertheless, in 2003 the States Parties agreed that:

At the Meeting of States Parties, States Parties noted that notwithstanding the differing legal and constitutional arrangements among the 151 States Parties to the Convention, States have adopted similar basic approaches and share common principles. The States Parties stressed the need for undertaking activities at the national level in keeping with their obligations and responsibilities to strengthen and implement the Convention. The States Parties agreed, to that end, on the value of the following:

To review, and where necessary, enact or update national legal, including regulatory and penal, measures which ensure effective implementation of the prohibition of the Convention, and which enhance effective security of pathogens and toxins.

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

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

³⁴ World Health Organization, *Public health response to biological and chemical weapons: WHO Guidance*, 2004. Available at <http://www.who.int/csr/delibepidemics/biochemguide/en/index.html>

States Parties considered that agreement on the value of these measures discussed at the Meeting constitutes an essential effort to facilitate more effective implementation and enforcement of the Convention, as well as providing a basis for review of progress at the 2006 Review Conference.

As the outcomes of the annual Meetings of States Parties will be considered by the Sixth Review Conference which *will decide on any further action*, it is timely and appropriate for the WMDC recommendations with their focus on the Sixth Review Conference to emphasise these points.

Life Sciences and the Role of Scientists

51. The final section of the WMDC report in the area of biological and toxin weapons addresses life sciences and the role of scientists. The first paragraph sets the scene by saying that:

Devising measures to strengthen individual responsibility in scientific research involves a delicate balance between the legitimate quest for new knowledge, especially in fields where advances can greatly enhance medical and other kinds of peaceful developments, and the dangers to society inherent in certain kinds of work.

It does, however, put undue emphasis on research (the points made earlier in paragraph 19 are applicable) as well as on the individual when the organisation within which the individual equally needs to be aware of the *dangers to society inherent in certain kinds of work*.

52. The third paragraph uses some surprisingly inaccurate words in its call to *all countries and competent institutions to provide bioweapon awareness training for biologists and biotechnologists working in the public and private sectors*. The requirement is surely not to make biologists and biotechnologists aware of biological weapons but rather to make them aware of how work in the life sciences might be misused and the fact that such misuse is totally prohibited by both the BTWC and increasingly, by national legislation. One of the key findings from the recent work³⁵ by Malcolm Dando and Brian Rappert in seminars held in the UK, Germany and the United States has been the lack of awareness of those engaged in the life sciences of the prohibitions of the BTWC and that such misuse of the life sciences is illegal.

53. The same paragraph goes on to consider codes of ethics, codes of conduct and codes of practice. The sentences relating to codes of conduct and to codes of practice state that;

Codes of conduct or codes of practice, in contrast, are envisaged more as a professional guide to good practice that would be part of science education from secondary school to university and professional training, to raise awareness of the moral issues as well as instilling good practices for maintaining the security of materials, facilities and sensitive technologies.

³⁵ Malcolm R. Dando and Brian Rappert, *Codes of Conduct for the Life Sciences: Some Insights from UK Academia*, Bradford Briefing Paper No. 16 (Second Series), May 2005, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc> Malcolm R. Dando, *Private communication*, June 2006.

This appreciation is unfortunately incomplete as it appears to focus solely on codes within education. It overlooks the fact that in some countries codes of practice are an integral part of the national regulations that, for example, control health and safety. Such codes of practice are consequently an integral part of all activities carried out by facilities whether in academia, industry or government. It has been argued that if such codes were extended to include consideration of whether a planned activity presented a risk to the prohibitions under the BTWC this would be a highly effective way of ensuring that such considerations were taken into account on a continuing basis. The UK Royal Society in June 2005 issued a Policy Statement³⁶ that said:

Codes building on existing regulation and legislation

Many valuable guidelines and principles for the professional conduct of scientists already exist at organisational, national and international level. These could be extended for the purpose of preventing the misuse of scientific research. Existing guidelines and principles should be used as the basis for any codes where possible, rather than starting from first principles. It has been suggested that the requirements of the risk assessment process included in the health and safety regulations could be widened slightly to ensure that the proposed activity does not present a risk to the prohibitions enshrined in the BTWC (Pearson 2005)³⁷. Introducing extended codes of conduct or practice based on existing health and safety regulations provides an opportunity for education and training to reinforce these regulations. Such codes would need to be consulted before any new work was conducted and at key stages during the project. This type of code has more value than one that would be consulted only on one occasion, such as during training on joining an organisation or when signing a contract of employment.

This pointed out the value of working from existing codes of practice where possible and the greater value of codes that would be consulted on more than one occasion.

54. **Recommendation 36.** This section ends with the sixth and final WMDC recommendation in the field of biological and toxin weapons:

WMDC RECOMMENDATION 36

At the Sixth Review Conference, in 2006, the states parties to the Biological and Toxin Weapons Convention should reaffirm common understandings reached at previous review conferences and take action on all subjects addressed at Convention meetings since 2003. They should also establish a work programme on additional topics for future meetings. States parties should ensure more frequent reassessment of the implications of scientific and technological developments and reaffirm that all undertakings under Article I of the Biological and Toxin Weapons Convention apply to such developments. This Review Conference should reaffirm that all developments

³⁶ Royal Society, *The role of codes of conduct in preventing the misuse of scientific research*, RS policy document 03/05, June 2005. Available at: <http://www.royalsoc.ac.uk/displaypagedoc.asp?id=13648>

³⁷ Graham S. Pearson, *A Code of Conduct for the Life Sciences: A Practical Approach*, Bradford Briefing Paper No. 15 (Second Series), November 2004, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

in the life sciences fall within the scope of the Convention and that all developments in the life sciences for hostile purposes are prohibited by the Convention.

55. The first and second sentences are strongly supported. There is a real need for the States Parties to the BTWC to reaffirm and extend the extended understandings agreed at previous Review Conferences. There is also a clear need for a further series of annual meetings during the intersessional years from 2006 until 2011, when the Seventh Review Conference should be held. The process of annual Meetings of States Parties prepared for by a previous Meeting of Experts usually some four or five months before the Meeting of States Parties has worked well as the four or five month interval has provided sufficient time for the States Parties to deliberate on the outcome of the Meeting of Experts. However, consideration should be given to creating a situation in which the annual Meeting of States Parties can take decisions and can also decide to hold additional meetings in subsequent years on additional topics as appropriate. Furthermore, the annual Meeting of States Parties should receive a report on the progress thus far towards universal adherence to the Convention and on progress in regard to national implementation of the Convention and be able to agree on appropriate action to facilitate further progress.

56. The recommendations in the third and fourth sentences are to some extent repetitive and no background is provided to these aspects of the recommendation in this section of the WMDC report. The background is that successive Review Conferences have, as required by Article XII of the Convention that includes the requirement that:

Such review shall take into account any new scientific and technological developments relevant to the Convention.

carried out a review of recent scientific and technological developments relevant to the Convention. This has led to the adoption of language in the Article I section of the Final Declaration that reaffirms that the undertaking given by States Parties in Article I of the Convention applies to all such developments. The language adopted at the Fourth Review Conference in 1996 stated³⁸:

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.

57. In the Bradford Briefing Book³⁹ for the Fifth Review Conference issued in November 2001, the chapter⁴⁰ on Article I summarized the situation in regard to scientific and technological changes as follows:

³⁸ United Nations, Fourth Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxins Weapons and on their Destruction, Geneva, 25 November – 6 December 1996. *Final Document*, BWC/CONF.IV/9, 1996. Available at: <http://www.opbw.org>

³⁹ Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (editors), *Key Points for the Fifth Review Conference*, November 2001, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

“The Impact of Scientific and Technological Changes

38. States Parties will wish to reaffirm that the scope of the Convention covers all scientific and technological developments. However, as the genomics revolution enters the consolidation phase and major developments are taking place across the whole range of biology and medicine at an increasing pace, it would be desirable to provide further reaffirmation that all such developments are embraced by the Convention.

39. 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 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."*

40. 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.

These 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.

41. *Thirdly*, in view of growing knowledge of the dangers of prion diseases, the increasing capabilities for manipulation of receptors and ligands in the nervous, endocrine and immune systems, and the growing understanding of how proteins may be designed for particular purposes, the States Parties are recommended to extend the fifth paragraph of the Final Declaration of the Fourth Review Conference. As with the addition of an explanatory sentence on toxins in the Final Declaration⁴¹ of the Second Review Conference which read that:

⁴⁰ Malcolm R. Dando & Simon Whitby, *Article I – Scope*, in Graham S. Pearson, Malcolm R. Dando & Nicholas A. Sims (editors), *Key Points for the Fifth Review Conference*, November 2001, University of Bradford, Department of Peace Studies. Available at <http://www.brad.ac.uk/acad/sbtwc>

⁴¹United Nations, *Second Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological)*

The Conference reaffirms that the Convention unequivocally applies to all natural or artificially created microbial or other biological agents or toxins whatever their origin or method of production. Consequently, toxins (both proteinaceous and non-proteinaceous) of a microbial, animal or vegetable nature and their synthetically produced analogues are covered.

it is recommended that an explanatory sentence should be added at this Review Conference on prions, bioregulators and proteins. The text would then read:

5. The Conference also reaffirms that the Convention covers all microbial or other biological agents or toxins, naturally or artificially created or altered, as well as their components, whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes. Consequently, prions, proteins and bioregulators and their synthetically produced analogues and components are covered.

The additional sentence would eliminate any doubt as to the scope of the Convention in covering these rapidly developing fields of the life sciences.”

58. The question of *more frequent reassessment of the implications of scientific and technological developments* proposed by the WMDC requires some consideration. The requirement is for a technical evaluation of the implications of scientific and technological developments followed by a reaffirmation by the States Parties, as at the Fourth Review Conference, *that the undertaking given by the States Parties in Article I applies to all such developments*. The requirement is for a mechanism to achieve this: it could be achieved by a Meeting of Experts which evaluated the implications of scientific and technological developments relevant to the Convention that was then followed a few months later by a Meeting of States Parties with the authority to reaffirm *that the undertaking given by the States Parties in Article I applies to all such developments*. With such an understanding, the concept expressed in the third and fourth sentences of the WMDC recommendation 36 are strongly supported.

Other Relevant WMDC Recommendations

59. As noted above in paragraph 13 of this Review Conference Paper, other sections of the WMDC report include general recommendations that are applicable to biological and toxin weapons issues. These are now considered in turn. First the section on Export Controls, International Assistance, and Non-Governmental Actors has six such recommendations; 47, 49, 50, 51, 52 and 53 and the section on Compliance, Verification, Enforcement and the Role of the United Nations has three such recommendations: 56, 57 and 60.

60. **Recommendation 47.** This recommendation addresses export-control regimes and states that:

WMDC RECOMMENDATION 47

and Toxin Weapons and on their Destruction, 8th - 26th September 1986, Final Declaration, BWC/CONF.II/13/II, Geneva, 1986.

All states should conduct audits of their export control enforcement agencies (customs, police, coastguard, border control and military) to ensure that they can carry out their tasks effectively. States should seek to establish a universal system of export controls providing harmonized standards, enhanced transparency and practical support for implementation. Members of the five export control regimes [the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, the Zangger Committee and the Wassenaar Arrangement] should promote a widening of their membership and improve implementation in view of current security challenges, without impeding legitimate trade and economic development.

This recommendation can be strongly supported especially when it is recognized that there are numerous other export control regimes such as the Prior Informed Consent (PIC) regime for toxic and banned chemicals, the Persistent Organic Pollutants (POP) regime and the Biosafety Protocol requirements for Advance Informed Agreement (AIA) prior to transfers of genetically modified organisms (GMOs). The universal system proposed by the WMDC should include both security and health and safety material transfer regimes.

61. **Recommendation 49.** This is an excellent recommendation that addresses the responsibilities of industrial companies:

WMDC RECOMMENDATION 49

Companies engaged in activities relevant to weapons of mass destruction have the ability and responsibility to help prevent the proliferation of such weapons and an interest in demonstrating that they are fulfilling that responsibility, including full compliance with national and international obligations and public transparency. Trade associations should promote such objectives.

This recommendation is strongly supported.

62. **Recommendation 50.** This relates to codes of practice and codes of conduct:

WMDC RECOMMENDATION 50

States, international organizations and professional associations should encourage the appropriate academic and industrial associations to adopt and effectively implement codes of practice and codes of conduct for science and research in weapons of mass destruction-relevant fields.

This recommendation is surprisingly curtailed in its scope as it fails to address government facilities engaged in activities in weapons of mass destruction fields. The WMDC has again placed emphasis inappropriately on research – the focus throughout should be on all activities whether in academia, industry or government. Recommendation 50 would be better rephrased to read as follows (bold to show changes):

*States, international organizations and professional associations should encourage **all those engaged in activities** in weapons of mass destruction-relevant fields **whether in academia, industry or government** to adopt and effectively implement codes of practice and codes of conduct **for all such activities**. Appropriate academic,*

professional and industrial associations should encourage the adoption of such codes of conduct or practice.

With such amendment, the recommendation is strongly supported.

63. **Recommendation 51.** This relates to the informing of and involvement of parliaments:

WMDC RECOMMENDATION 51

Governments possessing any weapons of mass destruction should keep their parliaments fully and currently informed of their holdings of such weapons and their activities to reduce and eliminate them. Parliaments should actively seek such information and recognize their responsibility in formulating policies relevant to weapons of mass destruction issues. Greater inter-parliamentary cooperation on weapons of mass destruction issues is needed.

This recommendation does not apply to biological and toxin weapons as no State Party to the BTWC has admitted to possessing such weapons.

64. **Recommendation 52.** This relates to the involvement on NGOs:

WMDC RECOMMENDATION 52

States should assist Non-Governmental Organizations to actively participate in international meetings and conferences, and to inform and campaign in the weapons of mass destruction field. Private foundations should substantially increase their support for such organizations that are working to eliminate global weapons of mass destruction threats.

This recommendation is strongly supported.

65. **Recommendation 53.** This relates to education and informed public debate:

WMDC RECOMMENDATION 53

Organizations with security-relevant agendas should re-examine the 2002 United Nations Study on Disarmament and Non-Proliferation Education, and should consider ways in which they could foster and support such education and an informed public debate. Governments should fund student internships at multilateral institutions working on weapons of mass destruction issues.

66. The 2002 United Nations Study⁴² was carried out by governmental experts appointed by the UN Secretary-General from the following 10 States: Egypt, Hungary, India, Japan, Mexico, New Zealand, Peru, Poland, Senegal and Sweden. The study was carried out as a

⁴² United Nations, *United Nations study on disarmament and non-proliferation education Report of the Secretary-General*, A/57/124, 30 August 2002. Available at <http://www.un.ods>

result of General Assembly resolution A/RES/55/33 E⁴³ adopted on 20 November 2000 which had as its first paragraph:

The General Assembly

Desirous of stressing the urgency of promoting concerted international efforts at disarmament and non-proliferation, especially in the field of nuclear weapons and other weapons of mass destruction and their delivery systems, with a view to strengthening international security and enhancing sustainable economic and social development,

The Deputy Foreign Minister of Mexico was the Chairman of the group. Although this study does include one mention of ‘biological weapons’, this comes in the first paragraph of its introduction:

Science and technology transformed the world in the twentieth century. Living standards improved but warfare was rendered more deadly. Weapons of mass destruction - biological, chemical and nuclear – and their means of delivery were developed, as ever more sophisticated conventional armaments were produced and disseminated. The horrors and destruction of armed conflict persist. The need for disarmament and nonproliferation education and training has never been greater. Indeed, changing concepts and perceptions of security and threat magnify the urgency for new thinking to pursue disarmament and non-proliferation goals.

The study consequently focuses weapons of mass destruction in general and arrives at 34 recommendations with 20 under the heading “*Ways to promote education and training in disarmament and non-proliferation at all levels of formal and informal education*”, 6 under the heading “*Ways to utilize evolving pedagogic methods, particularly the revolution in information and communications technology*”, 4 under the heading “*Ways to introduce disarmament and nonproliferation education into post-conflict situations as a contribution to peace-building.*” and the final 4 under “*Next stages and implementation.*”.

67. The study was welcomed by the General Assembly in resolution 57/60⁴⁴ on 22 November 2002 which called upon the Secretary-General *to prepare a report reviewing the results of the implementation of the recommendations and to submit it to the General Assembly at its fifty-ninth session.* The first such report was submitted as A/59/178 on 23 July 2004 together with Add. 1 and Add. 2 in September and November 2004 respectively. This reported on responses from seven States: Hungary, Mexico, New Zealand, Russian Federation, Sweden, and Venezuela and in Add. 2 from Japan. Five of the seven responses were from States who provided experts (Hungary, Mexico, New Zealand, Sweden and Japan). It is thus evident that there has been only limited response to the initiative represented by the 2002 United Nations Study on Disarmament and Non-Proliferation Education

⁴³ United Nations, *Resolutions adopted by the General Assembly 55/33 General and Complete Disarmament E: UNITED NATIONS STUDY ON DISARMAMENT AND NON-PROLIFERATION EDUCATION*, A/RES/55/33, 12 January 2001. Available at <http://un.org>

⁴⁴ United Nations, *Resolution adopted by the General Assembly 57/60. United Nations study on disarmament and nonproliferation education*, A/RES/57/60, 30 December 2002. Available at <http://www.un.org>

68. The next group of recommendations come from the section on Compliance, Verification, Enforcement and the Role of the United Nations. The first one considered here is **Recommendation 56** which relates to the establishment of a small professional subsidiary unit to the UN Security Council:

WMDC RECOMMENDATION 56

The UN Security Council should establish a small subsidiary unit that could provide professional technical information and advice on matters relating to weapons of mass destruction. At the request of the Council or the Secretary-General, it should organize ad hoc inspections and monitoring in the field, using a roster of well trained inspectors that should be kept up-to-date.

This recommendation is strongly supported as the experience gained by UNMOVIC has demonstrated⁴⁵ the value and effectiveness of such a small unit. Table 11.2 in *The Search for Iraq's Weapons of Mass Destruction* set out some six options for the future use of UNMOVIC capabilities;

Option	Summary	Comment
1	UNMOVIC and the IAEA to implement an ongoing monitoring and verification regime in Iraq until such time as Iraq has become a Party to the CWC and has entered into the Additional Protocol with the IAEA. UNMOVIC and the IAEA to confirm that Iraq has been disarmed.	Essentially a continuation of the current role of UNMOVIC and the IAEA
2	The expertise and capabilities of UNMOVIC together with the IAEA to provide the necessary international system of verification and control for a Middle East WMD free zone.	Depends on acceptance by countries in the region
3	The expertise and capabilities of UNMOVIC to be used by the UN Secretary-General should a request be made to him for an investigation of an alleged use of biological or toxin weapons.	Pending the eventual negotiation of a strengthened BTWC regime
4	The expertise and capabilities of UNMOVIC to be retained as a secretariat to nurture and sustain the BTWC and likewise to support ongoing multilateral initiatives in relation to export controls	Pending the eventual negotiation of a strengthened BTWC regime and of a chemical and biological weapons

⁴⁵ Graham S. Pearson, *The Search for Iraq's Weapons of Mass Destruction; Inspection, Verification and Non-Proliferation*, Palgrave Macmillan, 2006. See Chapter 11 *Future Roles for UNMOVIC and its Expertise*.

	relevant to chemical and biological weapons and to missiles used to deliver weapons of mass destruction.	export control regime and a missile regime
5	The expertise and capabilities of UNMOVIC to serve on behalf of the Security Council to inspect countries of concern to determine whether activities and facilities are engaged in activities prohibited under the international conventions such as the BTWC and the CWC.	Depends on whether such inspections are more likely to be carried out bilaterally
6	The expertise and capabilities of UNMOVIC to assist Security Council in implementation of non-proliferation SCR 1540(2004)	Might be limited to those areas related to biological weapons and to missiles

67. **Recommendation 57.** This addresses enforcement which it is argued should be the term used for *acts related to the upholding of existing legal obligations by forceful means, political, economic or military.*

WMDC RECOMMENDATION 57

International legal obligations regarding weapons of mass destruction must be enforced. International enforcement action should be taken only after credible investigation and authoritative finding of non-compliance with legal obligations.

This recommendation is strongly supported as both elements are entirely valid – first, that the international legal obligations must be enforced and, secondly, that the evidence for non-compliance with legal obligations must be evident to all and based on credible and demonstrable evidence.

68. **Recommendation 60.** This addresses the role of the UN Security Council:

WMDC RECOMMENDATION 60

The United Nations Security Council should make greater use of its potential to reduce and eliminate threats of weapons of mass destruction – whether they are linked to existing arsenals, proliferation or terrorists. It should take up for consideration any withdrawal from or breach of an obligation not to acquire weapons of mass destruction. Making use of its authority under the Charter to take decisions with binding effect for all members, the Council may, inter alia:

- *require individual states to accept effective and comprehensive monitoring, inspection and verification;*
- *require member states to enact legislation to secure global implementation of specific rules or measures; and*

- *decide, as instance of last resort, on the use of economic or military enforcement measures.*

Before UN reform has made the Security Council more representative of the UN membership, it is especially important that binding decisions should be preceded by effective consultation to ensure that they are supported by the membership of the UN and will be accepted and respected.

69. This recommendation is strongly supported as the study of the UN activities in Iraq⁴⁶ has demonstrated that the Security Council's ability to focus on the threat to international security posed by weapons of mass destruction is variable and, furthermore, that the P5 members are liable to put their own national interests before the importance on ensuring through its concerted international action that weapons of mass destruction – in regard to biological and chemical weapons – are totally prohibited.

Conclusions

70. The WMDC have produced a good set of recommendations 31 to 36 relating to biological and toxin weapons which they have, quite rightly, focussed on the forthcoming Sixth Review Conference of the Biological and Toxin Weapons Convention to be held in Geneva from 20 November to 8 December 2006. They are much more pertinent and appropriate than those produced by the Secretary-General's High Level Panel on Threats, Challenges and Change⁴⁷.

71. **Recommendation 31** on universality:

WMDC RECOMMENDATION 31

All states not yet party to the Biological and Toxin Weapons Convention should adhere to the Convention. The states parties to the Convention should launch a campaign to achieve universal adherence by the time of the Seventh Review Conference, to be held in 2011.

is strongly supported as written.

72. **Recommendation 32** on national implementation with a slight modification of the second sentence (changes shown in bold):

WMDC RECOMMENDATION 32

To achieve universal adoption of national legislation and regulations to implement the Biological and Toxin Weapons Convention completely and effectively, the states parties should offer technical assistance and promote best-practice models of such legislation. As a part of the confidence-building process and to promote transparency

⁴⁶ Graham S. Pearson, *The UNSCOM Saga Chemical and Biological Weapons Non-Proliferation*, Macmillan/St. Martin's Press (1999), and Graham S. Pearson, *The Search for Iraq's Weapons of Mass Destruction; Inspection, Verification and Non-Proliferation*, Palgrave Macmillan, 2006.

⁴⁷ See analysis in Graham S. Pearson, *The UN Secretary-General's High Level Panel: Biological Weapons Related Issues*, University of Bradford, Department of Peace Studies, Review Conference Paper No. 14, May 2005. Available at <http://www.brad.ac.uk/acad/sbtwc>

*and harmonization, all states parties should make annual **life sciences**-related national declarations and make them public.*

is strongly supported as modified.

73. **Recommendation 33** on the UN Secretary-General's investigatory powers with slight modification (changes shown in bold):

WMDC RECOMMENDATION 33

*States parties to the Biological and Toxin Weapons Convention should enhance the investigatory powers of the UN Secretary-General, ensuring that the Secretary-General's office can rely upon a regularly up-dated roster of **trained** experts **drawn from member States** and advice from the World Health Organization, **the World Organization for Animal Health and the Food and Agriculture Organization together with** a specialist unit, modelled on the United Nations Monitoring, Verification and Inspection Commission, to assist in investigating unusual outbreaks of disease and allegations of the use of biological weapons.*

is strongly supported as modified.

74. **Recommendation 34** on a standing secretariat for the BTWC:

WMDC RECOMMENDATION 34

States parties to the Biological and Toxin Weapons Convention should establish a standing secretariat to handle organizational and administrative matters related to the treaty, such as Review Conferences and expert meetings.

is strongly supported as written.

75. **Recommendation 35** on responses to major outbreaks whether natural or deliberate with slight modification in the first sentence (changes shown in bold):

WMDC RECOMMENDATION 35

*Governments should pursue public health surveillance to ensure effective monitoring of unusual outbreaks of disease and develop practical methods of coordinating international responses to any major **outbreaks whether natural or deliberate**. They should strengthen cooperation between civilian health and security-oriented authorities, nationally, regionally and worldwide, including in the framework of the new International Health Regulations of the World Health Organization. Governments should also review their national biosafety and biosecurity measures to protect health and the environment from the release of biological and toxin materials. They should harmonize national biosecurity standards.*

is strongly supported as amended.

76. **Recommendation 36** on reaffirmations of the common understandings reached by previous Review Conferences:

WMDC RECOMMENDATION 36

At the Sixth Review Conference, in 2006, the states parties to the Biological and Toxin Weapons Convention should reaffirm common understandings reached at previous review conferences and take action on all subjects addressed at Convention meetings since 2003. They should also establish a work programme on additional topics for future meetings. States parties should ensure more frequent reassessment of the implications of scientific and technological developments and reaffirm that all undertakings under Article I of the Biological and Toxin Weapons Convention apply to such developments. This Review Conference should reaffirm that all developments in the life sciences fall within the scope of the Convention and that all developments in the life sciences for hostile purposes are prohibited by the Convention.

is strongly supported. However, as noted above in paragraph 58, the penultimate sentence calling for more frequent reassessments of the implications of scientific and technological developments requires a mechanism as suggested in paragraph 58. The reassessment needs to be followed within a few months by a reaffirmation *that the undertaking given by the States Parties in Article I applies to all such developments.*

77. Of the **other recommendations** that apply to weapons of mass destruction more generally rather than specifically to biological and toxin weapons, these should also be addressed, as appropriate, at the Sixth Review Conference of the BTWC.

78. **Recommendation 47** addressing export-control regimes:

WMDC RECOMMENDATION 47

All states should conduct audits of their export control enforcement agencies (customs, police, coastguard, border control and military) to ensure that they can carry out their tasks effectively. States should seek to establish a universal system of export controls providing harmonized standards, enhanced transparency and practical support for implementation. Members of the five export control regimes [the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group, the Zangger Committee and the Wassenaar Arrangement] should promote a widening of their membership and improve implementation in view of current security challenges, without impeding legitimate trade and economic development.

is relevant to consideration at the Sixth Review Conference of the outcome of the annual Meeting of States Parties in 2003 which considered the topics:

- i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation; and*
- ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;*

Consequently, WMDC Recommendation 47 will be relevant to the consideration of Article III, Article IV and Article X of the BTWC at the Sixth Review Conference.

79. **Recommendation 49** addressing the responsibilities of industrial companies:

WMDC RECOMMENDATION 49

Companies engaged in activities relevant to weapons of mass destruction have the ability and responsibility to help prevent the proliferation of such weapons and an interest in demonstrating that they are fulfilling that responsibility, including full compliance with national and international obligations and public transparency. Trade associations should promote such objectives.

will be relevant to consideration of Article IV of the BTWC at the Sixth Review Conference.

80. **Recommendation 50** relating to codes of practice and codes of conduct (as amended with changes shown in bold):

WMDC RECOMMENDATION 50

*States, international organizations and professional associations should encourage **all those engaged in activities in weapons of mass destruction-relevant fields whether in academia, industry or government** to adopt and effectively implement codes of practice and codes of conduct **for all such activities**. Appropriate academic, professional and industrial associations **should encourage the adoption of such codes of conduct or practice.***

will be relevant to the consideration at the Review Conference of the outcome of the annual Meeting of States Parties in 2005 which considered the topic:

v. the content, promulgation, and adoption of codes of conduct for scientists.

Consequently, WMDC Recommendation 50 will be relevant to the consideration of Article IV and Article X at the Sixth Review Conference.

81. **Recommendation 51** relating to the informing of and involvement of parliaments in regard to stockpiles of weapons of mass destruction:

WMDC RECOMMENDATION 51

Governments possessing any weapons of mass destruction should keep their parliaments fully and currently informed of their holdings of such weapons and their activities to reduce and eliminate them. Parliaments should actively seek such information and recognize their responsibility in formulating policies relevant to weapons of mass destruction issues. Greater inter-parliamentary cooperation on weapons of mass destruction issues is needed.

will not be relevant to the Sixth Review Conference of the BTWC as no State Party to the BTWC has admitted to possessing such weapons.

82. **Recommendation 52** relating to the involvement on NGOs:

WMDC RECOMMENDATION 52

States should assist Non-Governmental Organizations to actively participate in international meetings and conferences, and to inform and campaign in the weapons of mass destruction field. Private foundations should substantially increase their support for such organizations that are working to eliminate global weapons of mass destruction threats.

is relevant to the Sixth Review Conference. It is probable that, as at previous BTWC Review Conferences, NGOs will be able to participate as observers at the plenary sessions and receive the official documents of the Review Conference and that, in informal session, with the President of the Review Conference in the chair, NGOs will have the opportunity to make short statements to the Review Conference.

83. **Recommendation 53** relating to education and informed public debate:

WMDC RECOMMENDATION 53

Organizations with security-relevant agendas should re-examine the 2002 United Nations Study on Disarmament and Non-Proliferation Education, and should consider ways in which they could foster and support such education and an informed public debate. Governments should fund student internships at multilateral institutions working on weapons of mass destruction issues.

will be relevant to the consideration of Article IV at the Review Conference as previous Final Declarations such as that of the Fourth Review Conference have in the Article IV section declared:

3. *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.*

4. *The Conference believes that such measures which States Parties might undertake in accordance with their constitutional processes would strengthen the effectiveness of the Convention, as requested by the Second and Third Review Conferences.*

States Parties will wish to review the recommendations made by the 2002 United Nations Study on Disarmament and Non-Proliferation Education and consider what statements might

be appropriate at the Sixth Review Conference and whether to propose language for the Final Declaration.

84. **Recommendation 56** relating to the establishment of a small professional subsidiary unit to the UN Security Council:

WMDC RECOMMENDATION 56

The UN Security Council should establish a small subsidiary unit that could provide professional technical information and advice on matters relating to weapons of mass destruction. At the request of the Council or the Secretary-General, it should organize ad hoc inspections and monitoring in the field, using a roster of well trained inspectors that should be kept up-to-date.

is related to **Recommendation 33** which was addressed at paragraph 38 above and is also related to the consideration at the Review Conference of the outcome of the annual Meeting of States Parties which in 2004 addressed the following topic:

iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;

Consequently, both Recommendation 33 and 56 will be relevant to the consideration at the Review Conference of Article VI, and possibly also Article V, of the Convention.

85. **Recommendation 57** relating to enforcement in regard to *acts related to the upholding of existing legal obligations by forceful means, political, economic or military.*

WMDC RECOMMENDATION 57

International legal obligations regarding weapons of mass destruction must be enforced. International enforcement action should be taken only after credible investigation and authoritative finding of non-compliance with legal obligations.

is relevant to considerations at the Review Conference of compliance in relation to Article I of the Convention and also in relation to Article V and Article VI of the BTWC.

86. **Recommendation 60** addressing the role of the UN Security Council:

WMDC RECOMMENDATION 60

The United Nations Security Council should make greater use of its potential to reduce and eliminate threats of weapons of mass destruction – whether they are linked to existing arsenals, proliferation or terrorists. It should take up for consideration any withdrawal from or breach of an obligation not to acquire weapons of mass destruction. Making use of its authority under the Charter to take decisions with binding effect for all members, the Council may, inter alia:

- *require individual states to accept effective and comprehensive monitoring, inspection and verification;*

- *require member states to enact legislation to secure global implementation of specific rules or measures; and*
- *decide, as instance of last resort, on the use of economic or military enforcement measures.*

Before UN reform has made the Security Council more representative of the UN membership, it is especially important that binding decisions should be preceded by effective consultation to ensure that they are supported by the membership of the UN and will be accepted and respected.

is primarily a matter for consideration by the Security Council. However, the element in recommendation relating to *any withdrawal from ... an obligation not to acquire weapons of mass destruction* is relevant to the consideration at the Review Conference of Article XIII of the Convention. Likewise, the element relating to *any ... breach of an obligation not to acquire weapons of mass destruction* is relevant to the consideration at the Review Conference of Article VI of the Convention.

87. The recommendations of the WMDC, in some cases with slight modification, are thus highly relevant to the forthcoming Sixth Review Conference of the BTWC to be held in Geneva from 20 November to 8 December 2006. The States Parties are urged to take these recommendations into account in their preparations for the Review Conference and, as recommended in Bradford Review Conference Paper No. 16, to start considering successful outcomes identified therein now and to draft language that they can submit to the Committee of the Whole in regard to the relevant Articles of the Convention. In addition, States Parties with a particular interest in one or more of the successful outcomes are encouraged to prepare and submit Working Papers to the Review Conference. As noted in the introduction, success is rarely accidental and needs to be planned for.