

## The University of Bradford Institutional Repository

This work is made available online in accordance with publisher policies. Please refer to the repository record for this item and our Policy Document available from the repository home page for further information.

Author(s): Pearson, G.S.

Title: Article VII Measures: Optimizing the Benefits

Project: Bradford Project on Strengthening the Biological and Toxin Weapons Convention (BTWC)

Publication year: 1999

BTWC Briefing Papers: 1st Series: No. 22

Series Editor(s): Pearson, G.S. and Dando, M.R.

Publisher: University of Bradford (<http://www.brad.ac.uk>)

Publisher's repository: <http://bradscholars.ac.uk:8080/dspace>

Copyright statement: © 1999 University of Bradford. This work is licensed under a Creative Commons Licence (<http://creativecommons.org/licenses/by-nc-nd/2.0/uk>).



## ARTICLE VII MEASURES: OPTIMIZING THE BENEFITS

by Graham S. Pearson

### Introduction

1. The Special Conference<sup>1</sup> *determined to strengthen the effectiveness and improve the implementation of the Convention* established the Ad Hoc Group (AHG) *to consider appropriate measures, including possible verification measures,...to strengthen the Convention* and specifically included *inter alia* in the mandate the requirement that the AHG shall consider *Specific measures designed to ensure effective and full implementation of Article X*.

2. The contribution that "*specific measures designed to ensure effective and full implementation of Article X*"<sup>2</sup> of the Convention might make to increasing transparency and building confidence in compliance and thereby **strengthening** the effectiveness of the Biological and Toxin Weapons Convention as well as to enhancing cooperation for peaceful purposes was addressed in a series of four Briefing Papers Nos 6 to 9<sup>3</sup> which addressed building blocks and then addressed specific measures to achieve implementation. The way in which such Article X measures would contribute to an integrated regime was addressed in Briefing Paper No 10.<sup>4</sup>

3. More recently, there has been clear recognition at the **political** level that effective Article X measures can not only be identified but must also be incorporated into the regime. The first such signal from the Western Group came from the British Foreign Office Minister of State, who, speaking on behalf of the European Union, to the AHG on 22 June 1998 noted<sup>5</sup> "*the great importance attached by many Delegations to the provisions foreseen under Article VII of the Protocol [Measures to implement Article X of the BTWC]. I recognise that it will be important to ensure that agreement be reached between the divergent positions on this **crucial** element of the eventual regime. I feel sure that it will be possible to identify measures that will address real needs.*" [Emphasis added]. The same word "crucial" had been used

---

<sup>1</sup>United Nations, *Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Final Report, BWC/SPCONF/1, 19 - 30 September 1994, Geneva.

<sup>2</sup>United Nations, *Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Final Report, BWC/SPCONF/1, 19 - 30 September 1994, Geneva.

<sup>3</sup>Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Some Building Blocks*, University of Bradford, Briefing Paper No. 6, March 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Further Building Blocks*, University of Bradford, Briefing Paper No. 7, March 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Pharmaceutical Building Blocks*, University of Bradford, Briefing Paper No. 8, July 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Specific Measures to Achieve Implementation*, University of Bradford, Briefing Paper No. 9, July 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

<sup>4</sup>Graham S. Pearson, *The Strengthened BTWC Protocol: An Integrated Regime*, University of Bradford, Briefing Paper No. 10, July 1998. Available on <http://www.brad.ac.uk/acad/sbtwc> See also Graham S. Pearson, *The Protocol to Strengthen the BTWC: An Integrated Regime*, Politics and Life Sciences, September 1998, 189-201.

<sup>5</sup>Tony Lloyd, *Time to Accept the Realities of the Control of Biological Weapons*, Address to the Ad Hoc Group, Geneva, 22 June 1998.

earlier by the NAM Foreign Ministers who had, in their communiqué following their meeting at Cartagena on 19 - 20 May 1998, expressed<sup>6</sup> their concern about Article X measures saying that "*Substantive progress in strengthening the application and full operationalisation of Article X is **crucial** to the conclusion of a universally acceptable and legally binding instrument designed to strengthen the Convention. They reaffirm readiness to work with other delegations in order to achieve an appropriate balance in the Protocol.*" [Emphasis added]

4. The importance of Article X measures was further emphasised in July 1998 in Working Paper 296<sup>7</sup> by some 29 Western and Eastern States (ranging from Argentina to Canada, the Czech Republic, the EU States, Japan and the United States) which reaffirmed "*their commitment to actively promote and engage in international cooperation and exchanges in the field of biotechnology for peaceful purposes under the BWC....Further, they look forward to the development of specific measures in Article VII of the Protocol to take full advantage of the opportunities for cooperation, which the Protocol will create among its States Parties. Such measures should also address needs for assistance to ensure the Protocol's implementation.*" The breadth of support for concluding, as a matter of priority, a protocol to the Convention was demonstrated by the participation of 30 Ministers and the support of a further 27 States at an informal Ministerial Meeting<sup>8</sup> in New York on 23 September 1998. US support was shown by John Holum's statement<sup>9</sup> to the AHG in October 1998 when he said "*Another element of these negotiations is how to build on the principles of Article X of the Convention for more effective cooperation and coordination of peaceful biotechnology among State Parties to the Protocol. The Protocol will impose additional legally binding, requirements on its participants. Those obligations must be carried out accurately and promptly. If assistance to States Parties will promote compliance, it will be to everyone's benefit.*"

5. The political impetus to make progress on the development of text for Article VII of the Protocol was thus in place by the end of 1998. However, this had yet to translate into actual language in the Ad Hoc Group. There was uncertainty as to what international cooperation measures should be incorporated into the Protocol.

6. Encouraging developments followed in the AHG negotiations:

\* First, at the AHG meeting in January 1999, the square brackets were removed from the title of Article VII which became<sup>10</sup> *Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation* and the words "Implementation

---

<sup>6</sup>Non-Aligned Movement, *Ministerial Meeting of the Coordinating Bureau of the Non-Aligned Movement*, Communiqué, 19 - 20 May 1998, Cartagena de Indias, Columbia: para 107. Available at <http://www.nam.gov.Za/cartagena98.html>

<sup>7</sup>United Nations, *Working Paper submitted by Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Romania, Slovakia, Spain, Sweden, Switzerland, Turkey, United Kingdom and the United States*, BWC/AD HOC GROUP/WP. 296, 10 July 1998.

<sup>8</sup>United Nations, Working Paper by Australia, *Declaration of the Informal Ministerial Meeting on the Negotiation Towards Conclusion of the Protocol to Strengthen the Biological Weapons Convention*, BWC/AD HOC GROUP/WP.324, 9 October 1998.

<sup>9</sup>John D. Holum, *Statement to the Biological Weapons Convention Ad Hoc Group Session XII*, Geneva, 6 October 1998. Available on <http://www.acda.gov/>

<sup>10</sup>United Nations, *Procedural Report of the Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, BWC/AD HOC GROUP/44, 29 January 1999, Geneva.

Assistance", which had created much NAM concern when these were introduced in the March 1998 AHG meeting, were also deleted.

\* Secondly, during the same AHG session, a working paper by Brazil, Chile, New Zealand and Norway (WP. 346)<sup>11</sup> proposed language for randomly-selected visits which incorporated language to allow for the implementation, as appropriate, of cooperation and assistance activities during or immediately following the carrying out of the randomly-selected visits. This has now been incorporated into new rolling text for randomly-selected visits in Article III. The concept that technical assistance and cooperation could be provided in the context of visits is one that has been well received by most countries.

\* Thirdly, again in the January AHG session, a working paper by the NAM (WP.349)<sup>12</sup> introduced the concept of a Cooperation Committee which would *coordinate and promote effective and full implementation of Article X of the Convention and Article VII of the Protocol*.

7. At the April 1999 AHG session, a working paper<sup>13</sup> by New Zealand and the Netherlands addressed measures related to Article X and identified a number of possible measures along with some possible criteria to evaluate the suggested measures. These were accompanied by some analytical criteria which might be used to evaluate such measures. The intention was to stimulate discussion and, potentially, move towards a specific inventory of such measures in Article VII. Some of these ideas were taken forward in an Australian/UK working paper<sup>14</sup> proposing language for Article VII. This language has now been incorporated into the rolling text. This progress has been warmly welcomed by the Ad Hoc Group although some delegations suggested that they would like to see these ideas taken further.

8. Even more recently, on 17 May 1999 further political recognition of the importance of the Protocol Article VII measures was evident in the Common Position adopted by the European Union<sup>15</sup> which states that:

*Agreement shall be promoted, in particular in the negotiations, on the following measures which are **both central to, and essential for**, an effective Protocol to strengthen compliance with the BTWC:*

....

---

<sup>11</sup>United Nations, *Working Paper submitted by Brazil, Chile, New Zealand and Norway: Proposed language for the section on randomly-selected visits and Annex B*, BWC/AD HOC GROUP/WP. 346, 19 January 1999.

<sup>12</sup>United Nations, *Working Paper submitted by the Group of NAM and Other Countries, Establishment of a Cooperation Committee*, BWC/AD HOC GROUP/WP. 349, 21 January 1999.

<sup>13</sup>United Nations, *Working paper submitted by the Netherlands and New Zealand: BWC Article X/Protocol Article VII*, BWC/AD HOC GROUP/WP. 362, 6 April 1999.

<sup>14</sup>United Nations, *Working paper submitted by Australia and the United Kingdom of Great Britain and Northern Ireland: Article VII - Proposals*, BWC/AD HOC GROUP/WP. 363, 1 April 1999.

<sup>15</sup>European Union, *Common Position of 17 May 1999 adopted by the Council on the basis of Article 15 of the Treaty on European Union, relating to progress towards a legally binding Protocol to strengthen compliance with the Biological and Toxin Weapons Convention (BTWC), and with a view to the successful completion of substantive work in the Ad Hoc Group by the end of 1999*, (1999/346/CPSP), Official Journal of the European Commission, L.133/3, 28 May 1999.

*-- provision for specific measures in the context of Article 7 of the Protocol in order to further international cooperation and exchanges in the field of biotechnology. Such measures shall include assistance to promote the Protocol's implementation. [Emphasis added]*

9. It is therefore timely to give further consideration to the measures within Article VII of the Protocol and whether and how these might realistically be taken further. It is apparent **conceptually** that there is a wide range of activities that could fall under the heading of *Scientific and Technological Exchange for Peaceful Purposes and Technical Cooperation*. Some are activities for which the future BTWC Organization will be uniquely well qualified to carry out whilst others are activities which are already being carried out bilaterally or by other organizations. In a world in which the available resources are already over-stretched and over-committed, we cannot afford the luxury of unnecessary duplication. It is therefore necessary to consider each possible Article VII measure to determine to what extent it is already being carried out elsewhere so that the appropriateness of its as an Article VII measure can be assessed.

10. This Briefing Paper examines the ideas originally proposed in the earlier Briefing Papers on Article X (No 6 to 9), the concepts put forward in the New Zealand/Netherlands working paper, the language currently in Article VII of the rolling text and in the strike-through version in Annex IV. It also examines the parallel measures being implemented by the Organization for the Prohibition of Chemical Weapons (OPCW) in the implementation of the Chemical Weapons Convention (CWC). It considers the extent to which such activities would be appropriate and well suited to the future BTWC Organization as well as the contributions that they would make to building confidence in compliance and to promoting universal accession to the Protocol. Finally, it proposes some approaches for making further progress with Article VII.

11. For clarity, this Briefing Paper refers to Article VII of the Protocol and avoids, wherever possible, referring to Article X of the Convention.

### **Article VII Measures**

12. The New Zealand/Netherlands WP. 362 addressed several different categories of measures. For convenience, this Briefing Paper uses the same headings:

- A. Assistance in establishment of national implementation legislation measures.
- B. Training for BTWC Organization National Authorities
- C. Technical Cooperation and Assistance in the context of visits
- D. Electronic Communications network
- E. Biotechnology database
- F. Regional industry seminars
- G. Training and development in biotechnology
- H. Disease surveillance networks
- I. Article X Cooperation Committee
- J. Reporting

*Assistance in establishment of national implementation legislation measures*

13. WP. 362 suggests that provision should be made for assisting *in the establishment of national implementation legislation or measures for the Protocol*. Although WP. 362 proposes that *such assistance could be administered bilaterally between States Parties, as well as directly by the Technical Secretariat*, there is much to be said for such assistance being administered directly by the Technical Secretariat. The benefit of such assistance coming directly from the Technical Secretariat is that this ensures that the assistance is consistent. If assistance is provided bilaterally by States Parties, this presupposes that the implementing legislation or measures within the State Party providing the assistance is of the required standard. It is clear from the experience of the Organization for the Prohibition of Chemical Weapons (OPCW) that there is considerable and significant variation between the implementation legislation of the different States Parties.

14. At the third session of the Conference of States Parties on 16 - 20 November 1998, the Director General of the OPCW noted<sup>16</sup> that *"The Chemical Weapons Convention is not self-executing. Each State Party's international obligations under the Convention must be given direct internal legal effect."* He went on to state that *"more than 18 months after entry into force of the Convention, out of 119 States Parties, only 40, i.e. only 33%, have informed the Technical Secretariat of the legal and administrative measures they have taken to implement the Convention....of those texts submitted and reviewed, only 26 appear to be comprehensive enough for the State Party to be able to implement the Convention effectively in its jurisdiction. In only 18 of those texts has the penal legislation been extended to nationals extraterritorially, as required by Article VII, subparagraph 1 (c)."* Further details are provided in a survey<sup>17</sup> of national implementing legislation prepared by the Office of the Legal Adviser of the OPCW.

15. The OPCW experience with the implementation of the CWC has clearly demonstrated that such implementation assistance is indeed necessary -- and will be essential for the effective implementation of the obligations under the BTWC and the Protocol. For the Protocol to be implemented, the individual States Parties will need to implement appropriate national legislation and this will need to be comprehensive to ensure effective implementation. Although there has been useful guidance provided for the States Parties to the CWC, it is apparent that there will need to be even clearer guidance for the States Parties to the Protocol if we are to avoid the unsatisfactory situation reported by the OPCW.

16. The States Parties to the BTWC should already have adopted national legislation to implement the BTWC. As an example, the UK passed the Biological Weapons Act 1974<sup>18</sup> which made it an offence for any person to *develop, produce, stockpile, acquire or retain --*

*(a) any biological agent or toxin of a type and in a quantity that has no justification for prophylactic, protective or other peaceful purposes; or*

*(b) any weapon, equipment or means of delivery designed to use biological agents or toxins for hostile purposes or in armed conflict.*

---

<sup>16</sup>Organization for the Prohibition of Chemical Weapons, *Note by the Director-General: Compliance with Article VII: Legislation, Cooperation and Legal Assistance*, Conference of States Parties, C-III/DG.1/Rev.1, 17 November 1998. Available on the web at <http://www.opcw.nl/ciii/>

<sup>17</sup>Organization for the Prohibition of Chemical Weapons, *Survey of National Implementing Legislation*, Technical Secretariat, Office of the Legal Adviser, S/85/98, 17 November 1998. Available on the web at <http://www.opcw.nl/>

<sup>18</sup>Her Majesty's Stationery Office, *Biological Weapons Act 1974*, 1974 Chapter 6.

In 1998, the UK Government recognised that it was necessary to review the adequacy of the current legislation and issued a White Paper<sup>19</sup> which identified the importance of strengthening the Biological Weapons Act 1974 by proposing that it should be made an offence for anyone in the UK or a UK person abroad to aid, abet, counsel or procure a foreigner overseas to develop, produce or use a biological weapon. Consideration is also being given to whether it would be appropriate to make it an offence for anyone in the UK or a UK person abroad to aid, abet, counsel or procure a foreigner overseas to engage in military preparations or preparations of a military nature, intending to use a biological weapon.

17. As the mandate of the Ad Hoc Group is to *strengthen the effectiveness and improve the implementation of the Convention*, the Protocol should require States Parties to both demonstrate that they have adopted national measures to implement the Convention **and** the additional requirements of the Protocol. There is much to be said for a requirement to declare such national legislation and implementation measures within a set time after the entry into force of the Protocol for an individual State. The Technical Secretariat should be required to provide guidance including model legislation in order to assist States Parties in implementation of the Protocol.

18. **Evaluation.** Assistance in implementation of national legislation is clearly a measure which the future BTWC Organization is particularly well suited to carry out. No other organization is as well fitted to do this. This measure is clearly one that is entirely appropriate for the future Protocol. It will directly contribute to the building of confidence in the BTWC Organization that the State Party concerned regards its obligations under the Protocol as serious and that they need to be implemented effectively within that State.

19. It is also clear that assistance to States Parties in the implementation of the BTWC Protocol should be **broader** than assistance in implementation of national legislation. As with the CWC, there will also be a similar requirement to liaise with governments of states world-wide on issues relating to the Protocol with the aim of achieving a universal Convention and Protocol and to help National Authorities in ensuring national implementation.

#### *Training for BTWC Organization National Authorities*

20. WP. 362 recognizes that the experience of the implementation of the CWC has demonstrated *the importance, particularly for small countries with few technical resources, of training courses run by the OPCW Technical Secretariat* for National Authority personnel. Such training for National Authorities is particularly important as it helps to ensure that all National Authorities have a common approach to implementation of the Convention and Protocol. There is a clear argument that such training should be run by the future BTWC Organization rather than by a State Party as the BTWC Organization can ensure both that there is consistency in the training of the National Authority and that that training takes into account the lessons learned with time of the future BTWC Organization. In addition, the personal contacts established during such training between individuals of the BTWC Organization and those in National Authorities will bring a lasting benefit.

---

<sup>19</sup>Department of Trade and Industry, *Strategic Export Controls*, The Stationery Office, Cm 3989, July 1998. Also available at <http://www.dti.gov.uk/export.control/stratex/>

21. As well as organizing training courses for national authorities, there will be considerable value in the future BTWC Organization emulating the OPCW in providing a capability<sup>20</sup> entitled *The National Authority Adviser* on its website. This aims to be *An (almost) complete information source for the National Authority* providing links to information under the following categories: Subject index, Starting it all, Urgent tasks, The Declarations Adviser, What to do immediately after EIF, Routine tasks of the NA, Alleged use of CW, Information Series and End-Use Certificates.

22. **Evaluation.** It is apparent that for efficient and effective implementation of the BTWC Protocol, there needs to be both training of National Authorities and continuing close liaison between the BTWC Organization and the National Authorities of States Parties. Such training and liaison will help to ensure that implementation is consistent in the various States Parties. This is again an area in which the future BTWC Organization is particularly well suited to carry out the liaison and training of National Authorities -- no other body is as well fitted to do this. Such a measure again directly contributes to the building of confidence with the future BTWC Organization and with other States Parties that the State Party concerned regards its obligations under the Protocol as serious and that their National Authority is effective.

23. It is again also clear that assistance to National Authorities in the implementation of the BTWC Protocol should **broader** than the running of training courses for National Authorities. As with the CWC, there will be a parallel requirement to mount a Declaration Assistance and Support Programme to provide any technical or administrative support to States Parties in the preparation of their initial or annual declarations or any other declaration-related work and including, if requested, on site support to National Authorities.

#### *Technical Cooperation and Assistance in the context of visits*

24. Although WP. 362 identified the potential benefits of technical cooperation and assistance in the context of assistance to help States Parties *be confident that they are complying properly with the declaration obligations of the Protocol*, it is also evident that the opportunity could, and should, be taken during visits to provide technical cooperation and assistance to States Parties in more diverse areas than solely proper compliance with the declaration obligations.

25. The extension of randomly-selected visits to provide such wider assistance, if requested by the State Party being visited, was proposed in a working paper by Brazil, Chile, New Zealand and Norway (WP. 346)<sup>21</sup> in January 1999 and incorporated into the rolling text<sup>22</sup> for randomly-selected visits. The practicality of such cooperation and assistance being carried out in such visits was demonstrated in a joint Brazil/UK practice visit<sup>23</sup>.

---

<sup>20</sup>Organization for the Prohibition of Chemical Weapons, *The National Authority Adviser*, available at <http://www.opcw.nl/natadv/advhome.htm>

<sup>21</sup>United Nations, "Working Paper submitted by Brazil, Chile, New Zealand and Norway, Proposed Language for the Section on Randomly-Selected Visits and Annex B", BWC/AD HOC GROUP/WP. 346, 5 January 1999, Geneva.

<sup>22</sup>United Nations, *Procedural Report of the Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, BWC/AD HOC GROUP/44, 29 January 1999, Geneva.

<sup>23</sup>United Nations, "Working Paper submitted by Brazil and the United Kingdom of Great Britain and Northern Ireland, Report of a Joint UK/Brazil Practice Non-Challenge Visits", BWC/AD HOC GROUP/WP. 76, 18 July 1996, Geneva.



26. **Evaluation.** WP. 362 proposes technical cooperation and assistance in respect of the proper implementation of the declaration obligations of the Protocol. Such specific cooperation and assistance is again an area in which the future BTWC Organization will be better fitted than any other organization. Insofar as broader technical cooperation and assistance are concerned -- ie broader than just the implementation of the declaration obligations -- the extension of randomly-selected visits to address wider technical cooperation and assistance issues will be a highly efficient use of the expertise that the members of the future BTWC Organization will have. Some of these technical cooperation and assistance areas will be related to and carried out by the future BTWC Organization whilst others will not. In many areas, the future BTWC Organization will be aware of ongoing cooperative activities and initiatives being carried out by other international agencies and will be able to help the State Party being visited to become aware of the opportunities offered by these ongoing activities and initiatives. The inclusion of technical cooperation and assistance elements in a randomly-selected visit, if requested by the State Party being visited, will not only increase the benefit to the State Party being visited, it will also enhance the understanding of the future BTWC Organization carrying out the visit of the approaches to microbiology and biotechnology within the State Party being visited, thereby contributing to the building of confidence.

#### *Electronic Communications Network*

27. It is evident that there are tremendous benefits to be gained from electronic communications both within a State Party and between a State Party and the future BTWC Organization. There is little doubt that the future BTWC Organization will, as does the OPCW, have its own internet website. There would be benefits from each National Authority also having its own website as such websites will increase the national understanding of the Convention and Protocol and of its importance. The collection of national data using electronic communications networks whether to facilitate the declarations made by the National Authority for the State Party or to collect and analyze data for other national and international purposes -- such as collecting data on outbreaks of disease to facilitate epidemiological reporting to national and international health organizations, such as the WHO, OIE and FAO, will benefit both the State concerned and the international community. Consequently, assistance to States Parties in establishing an electronics communication network will bring benefits to both the future BTWC regime and to the State concerned.

28. WP.362 notes that the CTBTO operates an electronic communications network over the internet which has enabled the exchange of advice and other information in a cost-effective manner on a daily, informal basis and to facilitate scientific exchange. It also notes that the OPCW maintains a web page which includes opportunities for distance learning for CWC National Authority personnel -- *The National Authority Adviser -- An (almost) complete information source for the National Authority*<sup>24</sup>-- as well as information about opportunities for scientific and technological exchange<sup>25</sup>. It suggests that a parallel system could be beneficial under the Protocol. There is no doubt that the future BTWC Organization will maintain a web site which can be expected to contain at least a similar range of topics as the

---

<sup>24</sup>Organization for the Prohibition of Chemical Weapons, *The National Authority Adviser*, available at <http://www.opcw.nl/ica>

<sup>25</sup>Organization for the Prohibition of Chemical Weapons, *International Cooperation*, available at <http://www.opcw.nl/natadv/advhome.htm>

OPCW web site. It will be cost effective for the future BTWC Organization to include a full time specialist to maintain and update its website and for the future BTWC Organization to ensure that all staff in the Organization can be reached by electronic mail. When it is recalled that in the OPCW in providing support for National Authorities and national implementation, the cost of a single trip by a specialist to provide such report is \$2,500, it is clear that the proposal in which refers to one machine and software per National Authority is clearly cost-effective although provision of such electronic links will not obviate the need for occasional visits by experts to assist National Authorities and national implementation.

**29. Evaluation.** The future BTWC Organization will need to maintain a web site and to provide for electronic mail access to its staff. In addition, provision of assistance to National Authorities at the level of one machine and software per National Authority will be highly cost-effective and will bring significant benefits to the future Protocol regime. If further assistance is provided, such as assistance to building a communications network to collect data within the State Party, then care should be taken to augment whatever electronic communications network, however vestigial or advanced, that already exists in the State Party. Support from States Parties to establish an electronic communications network within individual States Parties will bring tangible benefits to both the Organization and to the State Party.

#### *Biotechnology Database*

30. WP. 362 recognizes that there are already *a large number of publicly or commercially available biotechnology database resources available*. It proposes that *a database of these resources, or a provision for access to already existing databases could be useful in the context of Article X for developing and developed countries alike* and notes that these could be accessible through the electronic communication system. The OPCW in its website provides a listing of what it describes as *CW Links*<sup>26</sup> which *inter alia* includes links to *Two very useful databases* as well as to a variety of other, largely CW related websites. This currently has rather few links to websites for chemical or chemical technology information although the OPCW has set up a *Chemical Technology Transfer* programme with its own website.<sup>27</sup> The future BTWC Organization could be expected to contain links to biotechnology websites such as those of BINAS (Biosafety Information Network & Advisory Service)<sup>28</sup> which is a service of the United Nations Industrial Development Organization (UNIDO) monitoring global developments in regulatory issues in biotechnology and of BioTrack Online<sup>29</sup> which is the website of the Organization for Economic Co-Operation and Development (OECD) Programme on the Harmonization of Regulatory Oversight in Biotechnology which aims to help both Member country governments and industries with biotechnology product notifications and assessments but also make information available to all who need it, including non-OECD countries. Both of these sites have excellent further links:

---

<sup>26</sup>Organization for the Prohibition of Chemical Weapons, *CW Links*, available at <http://www.opcw.nl/links.htm>

<sup>27</sup>Organization for the Prohibition of Chemical Weapons, *Chemical Technology Transfer Website*, available at <http://www.opcw.nl/ica/share>

<sup>28</sup>United Nations Industrial Development Organization, *BINAS (Biosafety Information Network & Advisory Service)*, available at <http://www.cenargen.embrapa.br/binas/binas.html>

<sup>29</sup>Organization for Economic Co-Operation and Development, *BioTrack Online*, available at <http://www.oecd.org/ehs/service.htm>

31. BINAS has cyberspace (hypertext) links<sup>30</sup> to the following sites:

- \* The Biosafety Pages of the Michigan State University International Centre for Genetic Engineering and Biotechnology
- \* Information on Biotechnology from DGXII of the European Commission
- \* The International Resource on Releases of Organisms to the Environment
- \* Bioline Publications
- \* Biotechnology Advisory Commission (Stockholm Environment Institute)
- \* Biotechnology Permits - The United States Department of Agriculture
- \* The Biotechnology page of the United States Food and Drug Administration
- \* National Biological Impacts Assessment Programme
- \* The Biotechnology Science Advisory Committee;
- \* A Proposed Biotechnology Rule - TSCA
- \* Agriculture Canada
- \* The UK Department of the Environment (DoE) Advisory Committee on Releases to the Environment (ACRE)
- \* The Belgian Biosafety Server
- \* BATS - Biosafety Research and Assessment of Technology Impacts, of the Swiss Priority Programme on Biotechnology
- \* BIO Online
- \* BioSpace
- \* Biz-Biotech
- \* The WWW Virtual Library Biotechnology Catalogue

32. BioTrack has a much larger set of *Links to Other Biotechnology or Biosafety Resources on the Web*<sup>31</sup> which is grouped under five main headings:

- \* National Biotechnology Web Sites (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Japan, Mexico, Netherlands, New Zealand, Norway, Poland, Sweden, Switzerland, United Kingdom, United States)
- \* European Commission
- \* International Organisations
- \* Non Member Countries
- \* Other Bodies

A complete listing of these links is provided in Annex A.

33. **Evaluation.** Although it is doubtful that there would be a need for a separate biotechnology database for the BTWC Organization, it would be highly desirable that the BTWC Organization web site had cyberspace links to existing and future biotechnology and biosafety databases in a similar way to the BINAS and BioTrack links pages.

34. In addition, there would be significant benefits to the future BTWC Organization if its web site had likewise cyberspace links to existing and future human, animal and plant disease surveillance and reporting web sites. The single specialist required to set up and maintain

---

<sup>30</sup>United Nations Industrial Development Organization, BINAS, *Links to Other Biosafety Sites of Interest*, available at <http://www.cenargen.embrapa.br/binas/links.html>

<sup>31</sup>Organization for Economic Co-Operation and Development, BioTrack, *Links to Other Biotechnology or Biosafety Resources on the Web*, available at <http://www.oecd.org/ehs/biolinks.htm>

the BTWC Organization web site should be able to set up, maintain and update such cyberspace links to biotechnology, to biosafety and to disease surveillance and outbreak web sites

#### *Regional industry seminars*

35. WP. 362 states that *It is important that industry be kept informed of Protocol implementation issues* and after noting that the IAEA and OPCW work closely with their respective industries suggests that *Regional industry seminars would provide a useful avenue for engagement between the BTWC Organization and the biotechnology sector.* In the OPCW, the External Relations Directorate, includes<sup>32</sup> amongst the tasks of Governmental Relations and Political Affairs Branch the following:

*a. Promote, organise and host international, national and regional events focussed on implementing the Convention and promoting its universality.*

...

*g. Advise on relevant developments and trends in the chemical industry and coordinate any outreach activities of the OPCW among chemical industry.*

In addition, the OPCW also has a wider seminar participation programme as part of its International Cooperation and Assistance Directorate which includes<sup>33</sup> both promoting participation of scientists and engineers from developing countries in international seminars relevant to the CWC and in facilitating or organising international seminars of direct importance to the CWC and its implementation. Another element in this area is the arranging of courses relevant to the CWC as well as subjects of importance to the chemical industry.

36. There is no doubt that the future BTWC Organization will need to mount regional seminars to promote the universality of the Protocol as well as to provide assistance in implementing the Protocol. Such seminars may involve governmental personnel as well as industry. There will also be benefits in the BTWC Organization in having a similar wider participation programme to that mounted by the OPCW International Cooperation and Assistance Division.

37. **Evaluation.** There is no doubt that there will be a need for regional seminars of various sorts organized or facilitated by the BTWC Organization. These should be aimed at a broader audience than just industry seminars.

#### *Training and Development in Biotechnology*

38. WP. 362 recognized that in a number of fora beyond the Ad Hoc Group there was a widespread appreciation that *many developing countries lack the technical, financial and institutional means to address biosafety* and that *they need greater capacity for assessing and managing risks, establishing adequate information systems, and developing expert resources in biotechnology.* WP. 362 went to identify a number of areas in which training and development assistance in biotechnology could usefully be implemented:

---

<sup>32</sup>Organization for the Prohibition of Chemical Weapons, Conference of the States Parties, Third Session, 16 - 20 November 1998, *Programme and Budget 1999*, C-III/DEC.16, 23 November 1998, page 55.

<sup>33</sup>Organization for the Prohibition of Chemical Weapons, Conference of the States Parties, Third Session, 16 - 20 November 1998, *Programme and Budget 1999*, C-III/DEC.16, 23 November 1998, page 67, footnote [062].

a. *Measures could include biosafety training for declared facility personnel in developing countries...and advice on environmental protection and training in occupational health and safety. This could be done, inter alia, by sponsoring regional conferences and workshops....*

b. *Measures to assist Protocol States Parties establish regulatory authorities or regimes for biosafety (eg Good Manufacturing Practice) might implement Article X, thereby bringing mutual trade benefits.*

c. *Provision could be made for the promotion of cooperation in development of biotechnology specifically for diagnosis and prevention of disease, building upon existing cooperation....*

d. *Internships, scholarships and laboratory improvement assistance also fall into this category.*

Each of these is considered in turn.

39. *Biosafety training, regional conferences and workshops.* It is important to recognize that in the field of biosafety there has been and continues to be much activity resulting from the Convention on Biological Diversity<sup>34</sup> and its subsidiary bodies -- Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) and the Open-ended Ad Hoc Working Group on Biosafety. Briefing Paper No 6 *Article X : Some Building Blocks* provides<sup>35</sup> a comprehensive account of the actions resulting from Agenda 21, the Convention on Biological Diversity and the progress towards a Biosafety Protocol. Although the principal aim of the Convention on Biological Diversity is the conservation of biological diversity it does also call for the *appropriate transfer of relevant technologies, taking into account all rights over those resources and technologies.* Article 16 specifically addresses *Access to and Transfer of Technology* stating in its first paragraph that

*Each Contracting Party, recognizing that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the attainment of the objectives of this Convention, undertakes...to provide and/or facilitate access for and transfer to other Contracting Parties of technologies that are relevant.*

Article 18 addresses Technical and Scientific Cooperation stating in its second paragraph that:

*Each Contracting Party shall promote technical and scientific cooperation with other Contracting Parties, in particular developing countries, in implementing this Convention, inter alia, through the development and implementation of national policies. In promoting such cooperation, special attention should be given to the development and strengthening of national capabilities, by means of human resources development and institution building.*

---

<sup>34</sup>United Nations Environment Programme, *Convention on Biological Diversity*, available at <http://www.unep.ch/bio/conv-e.html>

<sup>35</sup>Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Some Building Blocks*, University of Bradford, Briefing Paper No. 6, March 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

The third paragraph states that

*The Conference of Parties, at its first meeting, shall determine how to establish a clearing-house mechanism to promote and facilitate technical and scientific cooperation.*

Article 19 addresses *Handling of Biotechnology and Distribution of its Benefits* which includes the requirement for consideration of *a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity.* The consideration of this has led to the continuing negotiation of a draft Biosafety Protocol and to the promulgation of International Technical Guidelines for Safety in Biotechnology<sup>36</sup>.

40. There has therefore been considerable international, regional and national activity in respect of all of the above. In addition, the Convention on Biological Diversity has established a Clearing-House Mechanism which began with a pilot phase in 1996-97 which has subsequently been extended. A workshop on the Clearing-House Mechanism (CHM) was held in London in 1996 which agreed the following guidelines<sup>37</sup>:

- \* the access to the CHM must be open even to technologically poor nations;*
- \* the CHM should avoid duplications*
- \* the CHM must be a CH of CHs, that is, a network of networks, not holding large databases;*
- \* the CHM should link with global and local instances while being efficient, transparent and subject to independent review;*
- \* property and participants rights must be guaranteed.*

A report<sup>38</sup> on the implementation of the pilot phase of the Clearing-House Mechanism was provided to the Fourth Conference of Parties of the Convention on Biological Diversity. This provides a useful overview of what has been achieved and of what steps are being taken to improve the CHM and to promote capacity building. A specific review<sup>39</sup> of capacity-building in biosafety in developing countries was produced by the Secretariat of the SBSTTA (Subsidiary Body on Scientific, Technical and Technological Advice) which outlines the overall capacity needs of developing country Parties with regard to the issue of biosafety. This elaborates in detail the activities required under two headings:

- \* Support for governments for the development and implementation of national biosafety frameworks*

---

<sup>36</sup>United Nations Environment Programme, *UNEP International Technical Guidelines for Safety in Biotechnology*, UNEP Nairobi, Kenya.

<sup>37</sup>*Guidelines from the London workshop on Clearing House mechanism under CBD -- 1996*, available at <http://www.wamb.casaccia.enea.it/chm-cbd/guides/default.htm>

<sup>38</sup>United Nations Environment Programme, Convention on Biological Diversity, *Implementation of the Pilot Phase of the Clearing-House Mechanism*, UNEP/CBD/COP/4/8, 5 February 1998. Available at <http://www.biodiv.org/chm/info/official.html>

<sup>39</sup>United Nations Environment Programme, Convention on Biological Diversity, Subsidiary Body on Scientific, Technical and Technological Advice, *Capacity-Building in Biosafety in Developing Countries*, UNEP/CBD/SBSTTA/2/8, 5 August 1996.

*\* Support for sub-regional, regional and international entities for collaboration and co-operation*

41. It is thus evident that insofar as the future BTWC Organization is concerned, it will be important to ensure that any activities in the biosafety area are carefully selected to be complementary to the existing ongoing activities under the Convention of Biological Diversity. It is evident that a useful role that the BTWC Organization can play is in serving as a facilitator for States Parties to the Protocol to ensure that they are aware of the full range of biosafety activities being promoted under the Convention on Biological Diversity.

42. The proposal in WP. 362 for biosafety training for declared facility personnel in developing countries by, inter alia, sponsoring regional conferences and workshops is supported. This parallels the provisions made by the OPCW in its International Cooperation Programmes<sup>40</sup> which include:

a. Seminars and Symposia Participation Programme. This programme<sup>41</sup> promotes

*(a) the participation of personnel from States Parties in international seminars, symposia, workshops, etc. of relevance to the implementation of the Convention; and*

*(b) the facilitation of the fullest possible exchange of chemicals, equipment and technical information relating to the development and application of chemistry for purposes not prohibited under the Convention.*

This programme is *primarily intended for scientists, engineers and personnel of National Authorities in States Parties which are developing countries or countries in transition.*

b. Course Programme. This programme<sup>42</sup> focusses on two areas. The first area is courses given by the OPCW Technical Secretariat for personnel of National Authorities on the Chemical Weapons Convention. The second relates to *courses on chemical subjects of special relevance to developing countries.* The Secretariat can sponsor participation in such courses or, if no courses on an important subject presently exist, organise such courses with the assistance of outside teachers. The Course programme is again *primarily intended for scientists, engineers and personnel of National Authorities in States Parties which are developing countries or countries in transition.*

It would be entirely reasonable to expect the future BTWC Organization to have parallel arrangements which go at least as far, if not further, than those being implemented by the OPCW.

---

<sup>40</sup>Organization for the Prohibition of Chemical Weapons, *Summary of International Programmes*, Available at <http://www.opcw.nl/ica/summary.htm>

<sup>41</sup>Organization for the Prohibition of Chemical Weapons, *Seminars and Symposia Participation Programme*, Available at <http://www.opcw.nl/ica/particip.htm>

<sup>42</sup>Organization for the Prohibition of Chemical Weapons, *Course Programme*, Available at <http://www.opcw.nl/ica/courses.htm>

43. *Establishment of regulatory authorities or regimes for biosafety (eg Good Manufacturing Practice)*. As already indicated, the Convention on Biological Diversity has initiated a number of activities related to biosafety regimes and the development of national biosafety frameworks. It is equally clear that the establishment of national regulatory authorities and regimes for biosafety directly contribute to the building of confidence that activities involving microbiology and biotechnology are for peaceful and permitted purposes and thus benefit the future BTWC regime. There are thus national, regional and international benefits from States being assisted in establishment of national regulatory authorities and regimes for biosafety.

44. A parallel argument applies to the regulatory authorities for Good Manufacturing Practice and the licensing of medicines. This was addressed in some detail in Briefing Paper No 8<sup>43</sup>. There are clear national benefits from the establishment of regulatory authorities for Good Manufacturing Practice because of the increased confidence and assurance in the quality of pharmaceutical and other drugs and medicines produced in that State. Further benefits accrue from the increased trade in GMP controlled products and, in the context of the BTWC, there is greater confidence that production facilities are being regularly inspected by national regulatory authorities and are thus much less likely to be misused for prohibited purposes.

45. There are thus clear benefits to the future BTWC regime from the establishment of national regulatory authorities for biosafety and for licensed medicines with its inspection of Good Manufacturing Practice in production facilities. However, both of these are activities which do not fall exclusively within the remit of the future BTWC Organization and both are activities which are more likely to be promoted by other fora such as the Convention on Biological Diversity.

46. It is thus evident that insofar as the future BTWC Organization is concerned, it will be important to ensure that any activities in establishing national regulatory authorities in biosafety or in licensed drugs are carefully selected to be complementary to the existing ongoing activities under other fora. It may well be that the most useful role that the BTWC Organization can play is in serving as a facilitator for States Parties to the Protocol to ensure that they are aware of the initiatives being taken to establish regulatory authorities for biosafety and licensed medicines in other fora.

47. *Promotion of cooperation in development of biotechnology specifically for diagnosis and prevention of disease, building upon existing cooperation...* There is much national, regional and international activity engaged in the promotion of biotechnology for a wide range of applications including those for the diagnosis and prevention of disease. The biotechnology database discussion above has demonstrated the wide variety of ongoing activities which is all aimed at promoting biotechnology. Insofar as the diagnosis and prevention of disease are concerned, the international agencies WHO, OIE and FAO are all engaged in promoting international efforts to improve the diagnosis and the prevention of disease.

48. The promotion of cooperation in biotechnology is not an area for which the future BTWC Organization will be better qualified or better suited than other existing international fora. Although there is a specific area in the context of *Article VI Assistance and Protection*

---

<sup>43</sup>Graham S. Pearson, *The Strengthened BTWC Protocol: Article X: Pharmaceutical Building Blocks*, University of Bradford, Briefing Paper No. 8, July 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>



*against Biological and Toxin Weapons* as paragraph 1 specifically states that assistance includes protection against biological and toxin weapons including *prophylactic, diagnostic and/or therapeutic medical measures and materials* where States Parties may provide assistance in diagnosis and prevention of disease this is a special case.

49. Consequently, insofar as the future BTWC Organization is concerned, any activities promoting biotechnology for the diagnosis and prevention of disease are likely to be limited to those associated with Article VI of the Protocol. Under Article VII, it is probable that the most useful role that the BTWC Organization can play is in serving as a facilitator for States Parties to the Protocol to ensure that they are aware of the initiatives being taken to promote cooperation in the development of biotechnology. The cyberspace links between the future BTWC Organization web site and those concerned with biotechnology will go a fair way to fulfilling this aim.

50. *Internships, scholarships and laboratory improvement assistance.* This is another area which parallels the activities already being implemented under the OPCW International Cooperation programmes which has both an Internship Programme and a Laboratory Competence Programme. The Internship Programme<sup>44</sup> has as its objective the enabling of *scientists and engineers from the developing world to work for a limited period of time in a laboratory or facility in the industrialised world, purely to gain additional experience.* The OPCW notes that *although such an exchange would be bilateral in nature, the OPCW could facilitate it by maintaining a data base of interested scientists and engineers, and of laboratories or facilities willing to accept the scientists.* The Laboratory Competence Programme<sup>45</sup> is to facilitate *the improvement of national laboratories which are, or are intended to be, involved in chemical analyses relevant to the Convention. The support is intended primarily for national laboratories which already have an adequate infrastructure, but which could benefit from an increased level of technical competence so that they could carry out off-site analyses relevant to the Convention.* Both the Internship and the Laboratory Competence Programmes are *primarily intended for scientists, engineers and personnel of National Authorities in States Parties which are developing countries or countries in transition.*

51. It would be entirely reasonable to expect the future BTWC Organization to have parallel arrangements which go at least as far, if not further, than those being implemented by the OPCW.

52. **Evaluation.** There are a number of areas such as the sponsoring of regional conferences and workshops in the area of biosafety training and training in occupational health and safety, internships and laboratory improvement assistance where the future BTWC Organization will be well fitted to facilitate. As there are related activities being organised under other fora such as the Convention on Biological Diversity and its subsidiary bodies, it will be important for the future BTWC Organization to be aware of these other fora and their ongoing activities so as to avoid any unnecessary duplication and to maximise the synergistical benefits from the involvement of the BTWC Organization.

### *Disease Surveillance Networks*

---

<sup>44</sup>Organization for the Prohibition of Chemical Weapons, *Internship Programme*, Available at <http://www.opcw.nl/ica/internsh.htm>

<sup>45</sup>Organization for the Prohibition of Chemical Weapons, *Laboratory Competence Improvement Programme*, Available at <http://www.opcw.nl/ica/techcomp.htm>

53. WP. 362 rightly identifies *the continuing surveillance worldwide of outbreaks of disease in humans, animals and plants*" as an important element of the future BTWC verification regime because an outbreak of disease **may** be the manifestation of a biological weapons attack. Four possibilities are identified in WP. 362:

*-- An awareness of naturally occurring outbreaks would aid the Technical Secretariat's ability to examine alleged use of biological weapons.*

*-- Existing surveillance activities have various deficiencies. Improvement to these networks through measures to implement Article X could lead to improved implementation of the Protocol and provide incentive to States to accede to the Protocol in order to gain these benefits.*

*-- Careful consideration would need to be given to question of how cooperation with the BWC Organisation and WHO would impact on the neutrality of the latter. If this proves no problem, a suitable step could be the introduction of a fund in the context of the Protocol to assist the WHO with their efforts in this area.*

*-- The BWC could be the recipient of surveillance data carried out by the existing WHO, FAO and OIE international organisations.*

54. Two of the above recognise the importance of the Technical Secretariat being aware of naturally occurring outbreaks and receiving surveillance data from WHO, FAO and OIE. It is evident that the BTWC Organization will require background epidemiological information in order to carry out field investigations. Although background epidemiological data may be provided as part of a field investigation request, such epidemiological data may have been selected to support the request for an investigation. Consequently, the BTWC Organization should also independently obtain such background data directly from available sources.

55. Furthermore, for the BTWC Organization to be credible in carrying out field investigations, it will have to have full-time epidemiological experts. It will also need to be able to call upon specific experts to provide part-time assistance to the organization in carrying out a particular field investigation. Its full-time experts will need to have the experience and standing in the fields of human, animal and plant epidemiology to utilize the part-time experts effectively in the inspection team. The full-time expertise in the BTWC Organization would contribute significantly to the effectiveness and professional standing of the Organization by:

a. Preparing and periodically updating regional surveys of the sources of epidemiological data and analysis within the region thereby gaining an understanding of the way in which such data is collected and used within the region.

b. Preparing and updating periodically regional surveys, using publicly available data and analysis, of particular human, animal and plant diseases of relevance to the Convention.

c. Making ongoing analyses of global patterns of human, animal and plant diseases of relevance to the Convention.

Epidemiological data is therefore of direct relevance to the future BTWC Organization.

56. As the States Parties to the BTWC have long recognized in respect of the Confidence Building Measure B addressing outbreaks of disease, it is important under the CBM to provide both data on "*all outbreaks of infectious diseases...that seem to deviate from the normal pattern*"<sup>46</sup> **and** "*background information on diseases caused by organisms which meet the criteria for risk groups III and IV...the occurrence of which...does not necessarily constitute a deviation from normal patterns.*"<sup>47</sup> This requirement for background data was further encouraged and extended<sup>48</sup> in 1991 to include organisms in risk group II as well as in risk groups III and IV:

*Since no universal standards exist for what might constitute a deviation from the normal pattern, States Parties agreed to utilize fully existing national reporting systems on human diseases as well as animal and plant diseases, where possible, and systems within the WHO to provide annual updates of background information on diseases caused by organisms which meet the criteria for risk groups II, III and IV according to the classification in the 1983 WHO Laboratory Biosafety Manual, the occurrence of which, in their respective areas, does not necessarily constitute a deviation from normal patterns.*

57. It will be equally important that the future BTWC Organization has access to background data on outbreaks of such diseases. Much information is already reported by States to and disseminated by the international organizations WHO, PAHO, OIE and FAO. Briefing Paper No 21<sup>49</sup> sets out current official reporting. It is clear that increasingly information on outbreaks of disease is being provided to national, regional and international human, animal and plant health organizations and that this information is increasingly being made publicly available on the world wide web and will therefore be available to the future BTWC Organization. Consequently, a disease surveillance network of national, regional and international websites already exists -- Annex B provides an illustrative listing of such sites and Annex C reproduces the listing of other communicable diseases sites on the web site of the Australian National Centre for Disease Control -- and it would be entirely appropriate for the future BTWC Organization web site to have cyberspace links to existing and future human, animal and plant disease surveillance and reporting web sites. Such information on official sites is being supplemented by other disease reporting systems and as was noted in Briefing Paper No 21 "*It is unlikely that any significant human, animal or plant outbreak could escape international attention.*" It follows that it would be unnecessary duplication if the Protocol were to require States Parties to report on outbreaks of disease to the future BTWC Organization. Indeed, such a requirement could result in an opposite effect from that intended as there would be considerable potential for discrepancies between information reported to the national, regional and international human, animal and plant health organizations and information reported to the future BTWC Organization -- and a continuing

---

<sup>46</sup>United Nations, *Final Document of the Second Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons, and on Their Destruction*, BWC/CONF.II/13/II, 30 Sept 1986

<sup>47</sup>United Nations, *Report, Ad Hoc Meeting of Scientific and Technical Experts from States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons, and on Their Destruction*, BWC/CONF.II/EX/2, 21 April 1987.

<sup>48</sup>United Nations, *Final Document of the Third Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons, and on Their Destruction*, BWC/CONF.III/23/II, 1991.

<sup>49</sup>Mark Wheelis, *Outbreaks of Disease: Current Official Reporting*, University of Bradford, Briefing Paper No 21, April 1999. Available on <http://www.brad.ac.uk/acad/sbtwc>

requirement for clarifications of apparent anomalies and discrepancies between the two sets of data.

58. WP. 362 recognizes that existing disease surveillance activities have various deficiencies and notes that improvements to such surveillance networks *through measures to implement Article X could lead to improved implementation of the Protocol and provide incentive to States to accede to the Protocol in order to gain these benefits.* It is evident that the effectiveness of disease surveillance is dependent on States having the necessary infrastructure to collect and report the appropriate data. In many States, this will involve three separate Departments -- Health for human diseases, Agriculture for animal diseases and Environment for plant diseases. Requirements and priorities are likely to be different within States for surveillance of human, animal and plant diseases. Nevertheless, measures to develop infrastructure within States would implement Article X of the Convention and through the improved national, regional and international reporting would provide increased transparency and thus direct benefits to the Protocol **and** provide lasting tangible benefits to the States receiving infrastructure building assistance as they would benefit nationally from the availability of accurate and timely data on the health of their humans, animals and crops which would improve national planning and prosperity.

59. The remaining point made by WP. 362 in this area is that *Careful consideration would need to be given to question of how cooperation with the BWC Organisation and WHO would impact on the neutrality of the latter.* Clearly, a parallel argument applies to PAHO, OIE and FAO. It is, however, important to recognize that the aims of WHO, PAHO, OIE and FAO are first and foremost to provide aid and assistance to their Member States and for their continued effectiveness, the neutrality of these organizations must be maintained. Insofar as the suggestion in WP. 362 for *the introduction of a fund in the context of the Protocol to assist the WHO with their efforts in this area* is concerned, this would appear to require a direct linkage between the future BTWC Organization, which would presumably administer the fund, and the international organizations with potential for negative effects on the international organizations. It would seem to be better if the suggestion were modified so that States Parties to the Protocol could through a voluntary fund administered by the BTWC Organization provide assistance to other States Parties to improve their national disease surveillance and data collection capabilities and thereby enhance the implementation of the Protocol.

60. **Evaluation.** Information on naturally occurring outbreaks is of direct relevance to the future BTWC Organization which will need to maintain an awareness of information of outbreaks of disease in humans, animals and plants as it becomes available from the WHO, PAHO, OIE, FAO and regional organizations **and** from the various unofficial disease reporting networks. The future BTWC Organization web site should have cyberspace links to existing and future human, animal and plant disease surveillance and reporting web sites. The improvement of national capabilities for disease surveillance and reporting nationally, regionally and internationally to human, animal and plant health organizations will directly benefit the implementation of the strengthened BTWC regime **and** also bring significant benefits nationally to States Parties. Improvement of these national capabilities will also implement Article X of the Convention and should be specifically identified in Article VII of the Protocol.

*Article X Cooperation Committee*

61. WP. 362 states that consideration should be given to the proposal made in WP. 349<sup>50</sup> for the establishment of a Cooperation Committee in the future BTWC Organization. WP. 349 proposed language that has now been incorporated, albeit in square brackets, in paragraph 9 of Article VII of the Protocol<sup>51</sup> and amended in discussion that the Conference of States Parties shall at its first session establish a Cooperation Committee *to coordinate and promote effective and full implementation of Article X of the Convention and Article VII of the Protocol* with the following powers and functions:

- (a) *To review the functioning of the regular budget ... as well as the voluntary fund;*
- (b) *To promote cooperation among States Parties in the exchange of biological agents and toxins, equipment, materials and technology for peaceful purposes;*
- (c) *To promote the publication, exchange and dissemination of information among States Parties concerning current research programmes in bioscience and biotechnology, conferences, research centres, and other scientific and technological developments for peaceful purposes;*
- (d) *To promote the distribution of information on collaborative research and development projects for peaceful purposes among States Parties;*
- (e) *The identification of specific measures to recommend that States Parties adopt to promote international exchange in the field of biotechnology for peaceful purposes;*
- (f) *The Committee shall submit an annual report on its activities, containing its proposals and recommendations on the further strengthening of the implementation of Article X of the Convention to the Conference of States Parties.*

62. Such a Cooperation Committee would be a useful body which could oversee the international cooperation and assistance elements of the future strengthened regime and would ensure that annually the Conference of States Parties took note of the current state of play of the implementation of Article X of the Convention. Insofar as the powers and functions are concerned, the first (a) and last (f) would be particularly valuable; the other four powers and functions (b) to (e) merit further review and consideration. For example (c) which promotes *the publication, exchange and dissemination of information...concerning current research programmes in bioscience and biotechnology* is very broad and duplicates the existing links on biotechnology such as BINAS and BioTrack Online mentioned above. It is also doubtful whether *the publication...of current research programmes in bioscience and biotechnology* is an activity for which the future BTWC Organization will be particularly well fitted. Whilst there is no argument with the intentions in functions (b) to (e), it is suggested that there would be advantages in finding language which reflects more closely the coordination and promotion role of the Cooperation Committee rather than listing four particular functions which when considered in detail are somewhat ambiguous and offer more prospect of duplication with activities under other fora. It is suggested that language along the lines of:

---

<sup>50</sup>United Nations, Working paper submitted by the Group of NAM and Other Countries, *Establishment of a Cooperation Committee*, BWC/AD HOC GROUP/WP. 349 and WP.349/Corr. 1, 21 January 1999.

<sup>51</sup>United Nations, *Procedural Report of the Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, BWC/AD HOC GROUP/45, 14 April 1999, Geneva.

(b) *To review the coordination of activities to achieve effective and full implementation of Article X of the Convention and Article VII of the Protocol;*

(c) *To consider how such activities might complement activities being undertaken in other fora so as to maximise the benefits to the strengthened BTWC regime;*

should replace the present language in (b) to (e). This new language together with the existing (a) and (f) would give an appropriate scope and focus to the Cooperation Committee.

**63. Evaluation** The establishment of a Cooperation Committee to coordinate and promote effective and full implementation of Article X of the Convention and Article VII of the Protocol with amended powers and functions as proposed above would be an activity for which the future BTWC Organization would be particularly well fitted, it would not unnecessarily duplicate activities in other fora and it would contribute directly to improving the implementation of the Convention.

#### *Reporting*

64. WP. 362 suggests that *transparency could be increased in reporting on actions taken in the context of Article X; perhaps on a voluntary basis as in the current Confidence Building measures submitted annually by some States Parties to the United Nations*. It notes that the proposal in WP. 350<sup>52</sup> for declarations of implementation of Article X is unclear as to whether such declarations would be on a voluntary or compulsory basis. WP. 350 provides language for an Appendix entitled *Information to be provided in the declaration of the implementation of Article X of the Convention* which lists four items:

1. *A general description of the measures taken to facilitate the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents, toxins for peaceful purposes.*
2. *A general description of the measures taken to the further development and application of scientific discoveries in the field of bacteriology (biology) for the prevention of disease or for other peaceful purposes.*
3. *A general description of the status of implementation of Article X of the Convention.*
4. *Specific measures undertaken to review the existing national trade legislation or regulations, to promote transfers of bacteriological (biological) materials, equipment and technology for peaceful purposes.*

65. Although not explicitly stated in WP. 350, it would appear that this draft Appendix was intended to supplement the provision in the current draft Protocol in *Article III Compliance Measures D. Declarations* which includes

---

<sup>52</sup>United Nations, Working paper submitted by the Group of NAM and Other Countries, *Information to be provided in the declaration of implementation of Article X of the Convention*, BWC/AD HOC GROUP/WP. 350, 21 January 1999.

*[(K) DECLARATIONS ON THE IMPLEMENTATION OF ARTICLE X OF THE CONVENTION*

29. *Each State Party shall declare...all the measures taken during the previous calendar year individually or together with other States Parties, with the Organization and other international organizations in implementing Article X of the Convention and Article VII of the Protocol.*

It is evident that this would be an annual mandatory declaration in the same category as the other annual declarations of relevant facilities and activities in *D. Declarations*.

66. There is compelling evidence against a voluntary requirement to report information on the implementation of Article X when the experience of the BTWC Confidence Building Measures agreed in 1986 and extended in 1991 is recalled as this has been variable and patchy.<sup>53</sup> Although the States Parties at the Review Conferences have agreed to provide information annually and are politically bound to do so, only just over half of the States Parties have actually provided information and only about 10 States Parties have made the required annual returns. The information provided has been extremely variable. It is therefore doubtful if *transparency could be increased* as WP. 362 suggests if there was a reporting requirement that was voluntary.

67. However, a mandatory requirement to report on the implementation of Article X requires a specific requirement -- language as in the draft Protocol to *declare...all the measures taken during the previous calendar year individually or together with other States Parties...in implementing Article X* or in WP. 350 to provide *a general description of the status of implementation of Article X of the Convention* are too general and will not provide useful information or increase transparency as there is too much scope for each State Party to interpret the requirement in its own and different way from other States Parties.

68. There could, however, be increased transparency if there was a requirement for *specific* reporting on *particular* measures to implement Article X. It will, however, be necessary to consider carefully what information should be reported **and** what benefit will accrue to the BTWC regime from such reporting. There would be no benefit from a general requirement to "report on the implementation of Article X of the Convention" as this would be too broad with individual States Parties deciding to interpret for themselves what should and what should not be reported as being the implementation of Article X. There could, however, be benefit from reporting on the development of national disease surveillance reporting and networks as such information would directly benefit the understanding of the future BTWC Organization of the national approaches to disease surveillance within individual States Parties. It would also enable the future BTWC Organization to identify areas in national disease surveillance reporting and networks where additional resources could bring significant benefits to both the overall regime and to the individual State Party. In considering reporting of activities under Article X, the need is to balance the reporting burden with the benefit to the regime and to the States Parties.

69. **Evaluation.** A broad requirement to report on the implementation of Article X whether on a voluntary or compulsory basis would be a disproportionate burden on States Parties with

---

<sup>53</sup>Iris Hunger, *Article V: Confidence Building Measures*, in Malcolm R. Dando & Graham S. Pearson (eds), *Strengthening the Biological Weapons Convention: Key Points for the Fourth Review Conference*, Quaker United Nations Office, September 1996. Available at <http://www.brad.ac.uk/acad/sbtwc>

minimal benefit to the Protocol regime or to States Parties. However, a specific reporting requirement on a particular measure carefully tailored to provide information of benefit to the Protocol regime and to States Parties would be valuable.

### **Criteria for Article VII Measures**

70. WP. 362 identified a number of criteria which could be used to evaluate the various categories of measures. These criteria were:

*\* Contribution to other objectives of the Protocol: measures to implement Article X in the Protocol should also contribute, wherever possible, to improving compliance with the Convention's prohibitions and verification of compliance with those prohibitions.*

*\* Promotion of Protocol universality: benefits derived from the Protocol's activities or programmes to implement Article X should be targeted at States Parties to the Protocol and not to all States Parties to the Convention -- thus creating incentive to join the Protocol.*

*\* Synergies with other international organizations implementing assistance and cooperation in the field of biotechnology. There is no need to re-invent the wheel...*

*\* Acceptability (ie will it have adverse effects on other components of the negotiation mandate)...*

*\* Cost-effectiveness: the imperatives of the negotiation mandate for the Protocol -- implementation of its compliance regime to ensure the Convention is upheld, and assistance and development measures to help improve its implementation over time -- must be balanced carefully in the context of the future BWC Organisation's resources.*

To these criteria can usefully be added an additional criteria:

*\* The extent to which the future BTWC Organization will be particularly fitted to carry out such activities.*

71. Before considering how the various measures as modified in this Briefing Paper emerge when re-evaluated against all of these criteria, it is helpful to review the comparable provisions in the Chemical Weapons Convention and the way in which these are being implemented by the OPCW as this provides a valuable insight into the order of magnitude of the costs of such measures.

### **Article XI of the Chemical Weapons Convention**

72. The comparable Article of the CWC is *Article XI Economic and Technological Development* which includes the following language:

*1. The provisions of this Convention shall be implemented in a manner which avoids hampering the economic or technological development of States Parties, and international cooperation in the field of chemical activities for purposes not prohibited under this Convention including the international exchange of scientific and technical information and chemicals and equipment for the production, processing or use of chemicals for purposes not prohibited under this Convention.*



2. Subject to the provisions of this Convention and without prejudice to the principles and applicable rules of international law, the States Parties shall:

(a) Have the right, individually or collectively, to conduct research with, to develop, produce, acquire, retain, transfer, and use chemicals;

(b) Undertake to facilitate, and have the right to participate in, the fullest possible exchange of chemicals, equipment and scientific and technical information relating to the development and application of chemistry for purposes not prohibited under this Convention;

73. Within the OPCW, the International Cooperation Branch within the International Cooperation and Assistance Division has been mandated to design and implement a number of programmes for the benefit of States Parties to foster international cooperation in the field of chemical activities in accordance with Article XI. These programmes are currently:

*Declaration Assistance and Cooperation Programme*  
*Laboratory Competence Improvement Programme*  
*Internship Programme*  
*Laboratory Equipment Programme*  
*Chemical Technology Transfer*  
*Course Programme*  
*Seminars and Symposia Participation Programme*  
*Information Service*  
*Bilateral Cooperation Programme*

74. A useful summary of the nature of these programmes, with the exception of the *Declaration Assistance and Cooperation Programme*, is provided on the OPCW International Cooperation website page<sup>54</sup> which is reproduced on the next page of this Briefing Paper. The *Declaration Assistance and Cooperation Programme* is described as being *In order to further assist national Authorities in establishing full compliance with the requirements of the Chemical Weapons Convention, the Secretariat has established a declaration support programme. It is made clear that this programme will provide any technical or administrative support in the preparation of...initial or annual declarations, or in any other declaration-related work. This support will provided by sending a suitable expert to the National Authority to provide... on-site support to the National Authority in the completion of their declarations.* In addition to the International Cooperation programmes, the OPCW in its External Relations Directorate<sup>55</sup> *liaise with governments of states world-wide on issues relating to the Convention with the aim of achieving a universal Convention and to help National Authorities in ensuring effective national implementation and in order to achieve this promote, organise and host international, national and regional events focused on implementing the Convention and promoting its universality.*

---

<sup>54</sup>Organization for the Prohibition of Chemical Weapons, *Summary of International Programmes*, Available at <http://www.opcw.nl/ica/summary.htm>

<sup>55</sup>Organization for the Prohibition of Chemical Weapons, Conference of the States Parties, *Programme and Budget 1999*, Third Session, 16 - 20 November 1998, C-III/DEC,16, 23 November 1998, p. 55.

## SUMMARY OF INTERNATIONAL COOPERATION PROGRAMMES

The International Cooperation Branch, within the OPCW's International Cooperation and Assistance Division has been mandated to design and implement a number of programmes for the benefit of States Parties to foster international cooperation in the field of chemical activities in accordance with Article XI.

As a first step a database on similar programmes managed and administrated by other international organisations will be established. The purpose is to avoid duplication of efforts and to facilitate States Parties to identify programmes which might be of use to them.

In the "*Internship Programme*" the objective is to facilitate scientists and engineers from developing countries to locate institutions or laboratories where they could work as interns for a limited period in fields of special relevance to the Convention.

Laboratories will be supported in two ways. In the "*Laboratory Equipment Programme*" a database will be maintained on used laboratory equipment being sought or offered. The "*Laboratory Competence Programme*" is specially geared towards improving the technical competence at analytical laboratories. Within the framework of this programme, courses and other forms of training will be arranged at national analytical laboratories. Consultants will be made available for the laboratories to advise on improving technical capabilities. Participation of personnel from such laboratories in external advanced analytical courses and in international seminars, symposia and workshops will be sponsored. Furthermore, the programme will provide such personnel an opportunity to work, for a limited time, at other laboratories to learn new techniques.

OPCW underscores the importance of having access to international meetings. To this end, the "*Seminars and Symposia Participation Programme*" provides for financial support for scientists or engineers from developing countries who need to participate in international meetings on subjects related to chemistry and chemical technology. Support for arranging meetings on chemical topics of special relevance to developing countries can also be provided.

In order to promote the exchange of chemical technology, a *chemical technology transfer website* will be established. This will be a forum open to everybody from the States Parties, where chemical technology can be offered or sought.

The "*Course Programme*" focusses on two areas. The first area is courses, given by the OPCW Technical Secretariat for personnel of National Authorities on the Chemical Weapons Convention. The second relates to courses on chemical subjects of special relevance to developing countries. The Secretariat can sponsor participation in such courses or, if no courses on an important subject presently exist, organise such courses with the assistance of outside teachers.

The "*Bilateral Cooperation Programme*" aims at facilitating for potential cooperation partners in developed and developing countries to find each other to begin a mutually rewarding cooperation. Initially this programme will focus on various aspects of natural products, e.g. occurrence, isolation, production, properties and use.

For further information on how the International Cooperation Branch can help you, please contact the Director of the International Cooperation and Assistance Division as per the contact details appearing above.

75. Information on the costs and the detailed nature of the various elements of these OPCW programmes is available in the OPCW budget document<sup>56</sup>; a relevant extract is provided in Annex D. It must be emphasised, however, in analysing these cost figures that the salary of the OPCW staff are shown separately from the other resources which are shown as specific line items in the Budget document and reproduced in Annex D. Consequently, in making the analysis below for the costs of the various elements of the International Cooperation programme and of the External Relations Directorate programme it needs to be stressed that this **excludes** the salary costs of the OPCW staff. The extracted costs are summarised under the same headings as those listed above, using a conversion rate of \$1=2 NLG:

<b>Programme</b>	<b>1999 Budget (US \$)</b>
<b>International Cooperation programme</b>	
Declaration Assistance and Cooperation Programme	10 regional activities \$275,000
Laboratory Competence Improvement Programme	\$321,300
Internship Programme	8 interns \$112,200
Laboratory Equipment Programme	\$12,500
Chemical Technology Transfer	Technical Secretariat effort
Course Programme	3 Nat Auth courses \$132,600
Seminars and Symposia Participation Programme	\$309,000
Information Service	Technical Secretariat effort
Bilateral Cooperation Programme	\$5,100
<b>External Relations Directorate programme</b>	
Regional workshops and seminars on universality	Six seminars @ \$17,500 each \$100,000
<b>Office of the Legal Adviser</b>	
Official travel -- including participation in regional seminars to provide substantive support on legal aspects	The last of five listed activities totalling \$17,500

The other elements of the International Cooperation programme which are not specifically highlighted on the International Cooperation web page are as follows:

<b>Programme</b>	<b>1999 Budget (US \$)</b>
<b>International Cooperation programme</b>	
List of existing programmes related to cooperation in the chemical field	\$5,100
To foster technical competence and capabilities in States parties in relation to urgent environmental and public health problems	1 technical seminar \$100,000

<sup>56</sup>Organization for the Prohibition of Chemical Weapons, Conference of the States Parties, *Programme and Budget 1999*, Third Session, 16 - 20 November 1998, C-III/DEC,16, 23 November 1998.

Support for development of national capabilities for customs enforcement	\$100,000
Internship programme for inspector candidates	\$125,000

76. These costs related to internal cooperation and Article XI of the CWC need to be considered in the context of the total budget of the OPCW which in 1999 was some 137,748,000 NLG or approximately \$69 M US dollars for a staff of 496. It will be recalled that in analysing the likely size and cost of the future BTWC Organization, Briefing Paper No 5<sup>57</sup> used the detailed information available on the staffing and budget for the OPCW to estimate the likely overall size and cost of a **lean and mean** BTWC Organization. It concluded that the BTWC Organization would need **about 200 posts** and an annual budget of **under \$30M**; it would be well under half the size of the OPCW with a budget of less than half that of the OPCW.

77. The assumptions made in Annex D of that analysis for the area of International Cooperation and Assistance are reproduced here:

OPCW Organization	Number	Prospective BTWC Organization	Number	Change
<b>International Cooperation &amp; Assistance</b>	2	<b>International Cooperation &amp; Assistance</b>	2	---
Assistance and Protection	5	Assistance and Protection	4	-1
International Cooperation	4	International Cooperation	4	---
<b>Total</b>	<b>11</b>	<b>Total</b>	<b>10</b>	<b>-1</b>

The current staff numbers for International Cooperation and Assistance as shown in the OPCW 1999 Programme and Budget<sup>58</sup> total 11 posts. Consequently, a similar range of international cooperation activities to those currently being carried out by the OPCW could be carried out by the future BTWC Organization within the staff numbers of about 200 and budget of under \$30 M assessed in Briefing Paper No 5.

78. **Evaluation.** There are a range of activities being carried out by the OPCW in its International Cooperation and the Government Relations and Political Affairs Branches which would be expected to be paralleled by similar activities which would be just as appropriate for the future BTWC Organization in implementing Article VII of the BTWC Protocol.

## ASSESSMENT OF ARTICLE VII MEASURES

79. This Briefing Paper has considered the various measures identified in the Netherlands/New Zealand WP. 362 and has also examined in some detail those elements of the OPCW programme related to the comparable CWC Article XI. In this section, the measures identified in WP.362, **as modified earlier in this Briefing Paper**, are evaluated against the WP.362 criteria and the additional criteria identified above -- namely *The extent to which the future BTWC Organization will be particularly fitted to carry out such activities*. As it would be reasonable, given the explicit inclusion in the AHG mandate of the

<sup>57</sup>Graham S. Pearson, *An Optimum Organization*, University of Bradford, Briefing Paper No 5, January 1998. Available on <http://www.brad.ac.uk/acad/sbtwc>

<sup>58</sup>Organization for the Prohibition of Chemical Weapons, Conference of the States Parties, *Programme and Budget 1999*, Third Session, 16 - 20 November 1998, C-III/DEC.16, 23 November 1998.

requirement to consider *Specific measures designed to ensure effective and full implementation of Article X*, to expect that the future BTWC regime might well go further in promoting international cooperation than the CWC regime. It is therefore appropriate in evaluating the various Article VII measures to consider for each measure whether there is a parallel measure in the CWC regime and whether the Article VII measure goes further than the CWC measure.

*Comparison of Article VII Measures with parallel OPCW measures*

80. The following table lists the proposed Article VII measures and then identifies whether there is a comparable CWC measure and what provision for that measure was shown in the 1999 OPCW budget -- it should be recalled that these cost figures **exclude** the salary costs of the OPCW staff. However, the number of staff assumed for international cooperation in the analyses leading to an estimate for the future BTWC Organization of about 200 staff and an annual budget of less than \$30 M were the same as the current numbers of OPCW staff engaged on international cooperation.

<b>Proposed Article VII measure</b>	<b>Comparable CWC measure ?</b>	<b>CWC Cost (US \$)</b>
Assistance in establishing national legislation	<b>Not</b> as explicitly stated	ca \$3,500
Regional workshops & seminars on universality	Identical measure	\$100,000
Training for National Authorities	Identical measure	\$132,600
Declaration and Assistance programme	Identical measure	\$275,000
Technical cooperation and assistance in the context of visits	<b>Not</b> explicitly stated. However, sequential inspections carried out.	
Electronic communications network -- web site, one machine + software /National Authority, assistance for data collection	OPCW website, e-mail access	Included
Biotechnology database -- cyberspace links	OPCW have limited links -- few to chemicals and chemistry sites	Included
Human, animal and plant disease surveillance database -- cyberspace links	<b>No</b>	
Regional seminars (not limited to industry) Seminar participation programme	Identical measure	\$309,000
Training and development in biotechnology -- Biosafety training etc -- Assistance to establishing regulatory authorities -- Cooperation in development of biotechnology - for diagnosis & prevention -- Internships & Laboratory improvement assistance	Parallel measures -- Environmental & public health -- Customs enforcement -- Assistance under CWC Art X -- Internships -- Internships for inspectors	\$100,000 \$100,000  \$112,200 \$125,000 \$321,300
Disease surveillance national capabilities	<b>No</b>	

Article X Cooperation Committee	<b>No</b> -- although has comparable Committees with external members	\$75,000 cost per committee
Specific reporting on particular Article X measure	<b>No</b>	

81. Examination of the table shows that a number of measures have been identified for Article VII which go further than the comparable OPCW measure. These are:

a. **Assistance in implementation of national legislation.** There is little doubt, given the experience of the OPCW, of the necessity for and importance of such a measure.

b. **Technical cooperation and assistance in the context of visits.** Although there is no explicit parallel in the OPCW budget, it is clear that the OPCW has adopted the principle of sequential visits whenever possible in order to reduce inspection costs.

c. **Human, animal and plant disease surveillance database -- cyberspace links.** Providing and updating cyberspace links to human, animal and plant disease surveillance websites would not add significantly to the tasks of the future BTWC Organization.

d. **Disease surveillance national capabilities.** Although there is no comparable measure in the OPCW budget, there is a parallel in respect of the OPCW funded *support for the development of national capabilities for customs enforcement.*

e. **Article X Cooperation Committee.** Although there is no comparable committee in the OPCW, it does have other committees made up of external members such as the OPCW Confidentiality Commission and the OPCW Scientific Advisory Board. The OPCW 1999 budget includes \$150,000 for travel and subsistence *for 20 members respectively of the Confidentiality Commission and the Scientific Advisory Board.* It would be reasonable to assume a cost of \$75,000 for the Article X Cooperation Committee.

f. **Specific reporting on particular Article X measure.** There is no comparable OPCW requirement.

Examination of the above table also identifies a further CWC measure which would be equally applicable to the future BTWC Organization:

g. **Internship programme for BTWC Organization inspector candidates.** The CWC programme is *intended to provide chemists and engineers mainly from developing countries with practical knowledge and additional experience that will increase their suitability as OPCW inspector candidates.* A parallel programme for the BTWC Organization will be equally appropriate.

*Overall Evaluation of Article VII Measures*

82. Each of the Article VII measures identified in this Briefing Paper are now evaluated against the criteria identified above in paragraph 70. The results are shown in the following table.







83. Examination of the table shows that all but one measure show much promise as Article VII measures for the future Protocol regime. The single exception is the proposal for *Cooperation in development of biotechnology for diagnosis and prevention of disease* which would appear to be more suited for Article VI of the Protocol. Insofar as the other measures are concerned, there are a large number which score highly under the headings of *Suitability for BTWC Organization, Acceptability* and *Cost-effectiveness*. All of these should be included within the future Protocol regime.

84. In addition, there are a few which show much promise although are not scored quite as highly at present:

- \* Assistance in data collection
- \* Training and development in biotechnology
- \* Assistance in establishing regulatory authorities, regimes for biosafety, Good Manufacturing Practice, licensing of medicines, etc
- \* Disease surveillance national capabilities

There is, however, nothing which would rule out any of these measures as all score highly in promoting Protocol universality and all of them should therefore be included within the future Protocol regime.

85. Finally, there is the measure for *Specific reporting on particular Article X measure* which is heavily qualified. As already noted earlier, it will be important in any such measure to consider carefully what information should be reported **and** what benefit will accrue to the BTWC regime from such reporting on a specific Article X measure. An example of such reporting which would be of benefit was the reporting of *the development of national disease surveillance reporting and networks* as such information would directly benefit the BTWC Organization. In considering the reporting of a particular Article X measure, it will be essential to balance the reporting burden with the benefit to the Protocol regime and to the States Parties.

### **The Way Ahead for Article VII**

86. In considering the way ahead for the language in Article VII, it will be important to craft language which is not unduly prescriptive -- as it would be unrealistic to try to define every detail of Article VII at this stage as the rate of development is very fast in the area of microbiology and biotechnology -- yet points the way so that there is a clear message to the future BTWC Organization as to the range of Article VII activities that it could undertake. The Protocol Article VII language should be expected to go further than the language in the CWC Article XI which can usefully be regarded as providing a baseline. It is already clear from the existing text of Article VII that the Protocol has moved well beyond what is in the CWC and consequently that the Protocol should already contain elements that will help to promote its universality to all States.

87. It will, however, be important in developing the language of Article VII to avoid the temptation to add everything as Article VII might then be perceived as an impossible "wish-list" and receive less attention than it merits. There would be advantage in focussing language on particular measures, such as those evaluated in this Briefing Paper which have scored highly against the criteria, so that the future BTWC Organization implements these particular measures. The proposed Cooperation Committee would be well placed to

recommend to the Conference of the States Parties additional areas in which the future BTWC Organization should implement measures under Article VII.

88. In considering the current text of Article VII, proposals for modifications could be made against the current rolling text in Part I of BWC/AD HOC GROUP/45 or against the suggested modified text in FOC/18 in Part II of BWC/AD HOC GROUP/45. As there have been significant developments in Article VII in the past two Sessions, it is considered that it will be more helpful to the AHG if proposals are made in the context of the suggested modified text in FOC/18 in Part II.

89. A number of points have emerged from this Briefing Paper which affect different parts of Article VII:

**a. Avoidance of duplication.** It is proposed that the language in Part II paragraph 3 is amended as follows:

*[34. In implementing the provisions of this Article, the States Parties and the Organization shall take into account ~~the necessity of strengthening~~ existing agreements and competences of other relevant international organizations ~~for among States Parties~~ ~~not contrary to the provisions of the Convention~~ ~~and take steps to avoid unnecessarily duplicating existing activities and mechanisms~~ ~~and shall cooperate to strengthen the existing cooperative relations and [if necessary] [where possible] avoid duplicating existing activities.]~~*

The deletion of States Parties is because the purpose of the Protocol is primarily to set out what the future Organization shall do and is not to tell States Parties whether or not they should duplicate existing activities and mechanisms. Secondly, the necessity of strengthening is also deleted as it is not the purpose of this Protocol to say whether or not other agreements and competences need to be strengthened.

**b. Promotion of Scientific and Technological Exchanges.** This, in paragraph 5, is primarily a wish list of areas in which the States Parties are being encouraged to promote a range of activities. Whilst there is no argument about the desirability of promotion of such activities, the inclusion of such a list diverts attention from the principle purpose of the Protocol and from the principle purpose of Article VII which is to ensure effective and full implementation of Article X. It is suggested that it would be more effective if Section B rather than listing a number of areas were to utilize language that reflects the first paragraph in respect of Article X in the Final Declaration<sup>59</sup> of the Fourth Review Conference which states that:

*The Conference once more emphasises the increasing importance of the provisions of Article X, especially in the light of recent scientific and technological developments in the field of biotechnology, bacteriological (biological) agents and toxins with peaceful applications, which have vastly increased the potential for cooperation between States to help promote economic and social development, and scientific and technological progress, particularly in the developing countries, in conformity with their interests, needs and priorities.*

---

<sup>59</sup>United Nations, *Fourth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Geneva, 25 November - 6 December 1996, Final Document, BWC/CONF.IV/9, 1996.

For Section B of Article VII this could be expressed as follows:

*The States Parties recognizing the increasing importance of the provisions of Article X of the Convention, especially in the light of recent scientific and technological developments in the field of biotechnology, bacteriological (biological) agents and toxins with peaceful applications, and the vastly increased the potential for cooperation between States, undertake to promote economic and social development, and scientific and technological progress, particularly in the developing countries, in conformity with their interests, needs and priorities.*

It is further proposed that paragraph 6 which addresses biodefence activities would be better deleted and considered in the context of Article VI Assistance and Protection against Biological and Toxin Weapons.

**c. Institutional Mechanisms for International Cooperation and Protocol Implementation Assistance.** This, in Section D, is the heart of Article VII where specific measures should be indicated for the effective and full implementation of Article X of the Convention. Paragraph 8 provides for the establishment of the Cooperation Committee and sets out its powers and functions in its subparas. As indicated above, some of these powers and functions are unduly broad and could be better focussed so that the language would read as follows:

*...The Committee shall have the following powers and functions:*

*(a) To review the functioning of the regular budget where it relates to activities of the Organization relevant to this Article as well as the voluntary fund;*

*(b) To review the coordination of activities to achieve effective and full implementation of Article X of the Convention and Article VII of the Protocol;*

*(c) To consider how such activities might complement activities being undertaken in other fora so as to maximise the benefits to the strengthened BTWC regime;*

*(d) To identify specific measures that could be recommended to the Conference of States Parties to further strengthen the implementation of this Article and of Article X of the Convention.*

*9. The Committee shall submit an annual report on its activities, containing its proposals and recommendations on the further strengthening of the implementation of Article X of the Convention to the Conference of States Parties.*

**d. Role of the Technical Secretariat.** Paragraph 10 is tightly constrained by some of its current language within square brackets. As the BTWC Organization can be expected to at the very least emulate the international cooperation and assistance activities of the OPCW, paragraph 10 should enable the Technical Secretariat to carry out a range of programmes and activities. It is suggested that paragraph 10 should be amended to read:

*10. The Technical Secretariat shall promote and facilitate scientific and technical cooperation and exchange among States Parties and shall develop a range of programmes and activities, subject to the provisions of paragraphs ..., in support of this goal and for providing technical assistance upon request, directly to individual States Parties. Such assistance shall be for promoting the implementing of Article X of the Convention, the effective implementation of this Article and of this Protocol.*

The limitation of based on the proposals and recommendations of the Cooperation Committee is deleted as this would be too constraining. Likewise the purpose of such assistance is best left as being to promote the implementation of Article X of the Convention. Finally, it would surely be better for the technical assistance to be to the implementation of both this Article and of this Protocol and not to be limited to just two specific elements of the Protocol.

Paragraph 12 appears to complicate matters by including reference to existing programmes of bilateral assistance which appear to be of limited relevance to the BTWC Organization and could well not be known to the Organization.. This could be simplified as follows:

*12. The Organization shall develop a framework for activities aimed at providing assistance, upon request, to the States Parties, and in particular to the developing countries being States Parties. Taking full account of existing agreements and competences of the relevant international organizations, the Technical Secretariat shall, where appropriate, and inter alia:*

It should be remembered that the Organization will be reporting on its activities on a regular basis to the Conference of States Parties and this will, based on the OPCW experience, provide adequate control and guidance. The *inter alia* is added to ensure that the Technical Secretariat is not limited to only carrying out a listed activity which would be shortsighted.

Insofar as the list of activities are concerned, these could with benefit reflect those which parallel the activities of the OPCW or which have scored highly in the tabular evaluation made earlier in this Briefing Paper. Some of the existing proposals are unrealistic -- such as to promote and finance the establishment of vaccine production facilities -- which might possibly fall under *Article VI Assistance and Protection against Biological and Toxin Weapons*. The list of activities might also be reordered so as to start first with implementation assistance activities and then to go on to the broader issues along the following lines:

*(a) provide assistance to States Parties, if requested, on:*

- (i) the drawing up of national implementation measures;*
- (ii) the establishment and functioning of national authorities;*
- (iii) the preparation of declarations;*
- (iv) The content and conduct of training courses and seminars for National Authority and declared facility personnel on the compilation of declarations and the planning and hosting of visits.*

*(b) establish an electronic communications network including a web site for the Organization with cyberspace links to national, regional and international sites related to:*

*(i) biotechnology and biosafety;*

*(ii) biotechnology and biosafety regulations;*

*(iii) regulatory mechanisms governing the production, validation, marketing and sale of pharmaceutical products and vaccines;*

*(iv) outbreaks and surveillance of human, animal and plant diseases;*

*(c) organise regional workshops and seminars to promote universality and the implementation of the Protocol*

*(d) establish an internship programme and a seminar and symposia participation programme to aid scientists from developing countries inter alia in subjects related to microbiology and biotechnology and in gaining practical knowledge and additional experience that will increase their suitability as candidates for employment in the Organization.*

*(e) establish an assistance programme to establish and develop national capabilities for the implementation of the Protocol including inter alia a laboratory improvement assistance programme and support for national data collection capabilities in areas related to the Convention.*

#### ***Other assistance***

*Taking full account of existing agreements and competences of the relevant international organizations, the Technical Secretariat shall, where appropriate, provide information and advice, during visits, if requested, as provided for in this Protocol on inter alia:*

*(i) Biosafety, including environmental protection and occupational health issues;*

*(ii) The principles of good laboratory practice and current good manufacturing practices;*

*(iii) The principles and requirements of national and international regulatory mechanisms governing the production, validation, marketing and sale of pharmaceutical products and vaccines;*

*(iv) Training requirements for facility and national regulatory personnel, and sources of such training;*

*(v) Identifying national, regional and international sources of information for more detailed follow-up enquiries and specialized assistance on these topics;*

The words *inter alia* have been included at various points above to ensure that the Technical Secretariat is not limited to only carrying out a listed activity.

**e. Cooperative Relationships.** The question has to be raised as to whether cooperative relationships should be addressed in Article VII or whether they are better addressed in paragraph 6 of *Article IX The Organization* ; the CWC likewise addresses cooperative agreements in paragraph 34 of *Article VIII The Organization* and not in *Article XI Economic and Technological Development*. Section E currently duplicates much that is elsewhere within Article VII. It would appear preferable to use Section E to focus on the importance in the context of the implementation of Article VII of the BTWC Organization working closely with other national, regional and international agencies, as appropriate, to implement Article VII taking care to ensure that flexibility is embodied within the language so that such relationships can be developed, as appropriate, with both present and future organizations. Suggested redrafting to achieve this could be along the following lines:

*(E) COOPERATIVE RELATIONSHIPS WITH NATIONAL, REGIONAL AND INTERNATIONAL ORGANIZATIONS*

*15. The Organization shall work closely with national, regional and international organizations in the implementation of this Article and shall, where necessary, enter into cooperative arrangements in accordance with Article IX, in order to inter alia:*

*(a) Support a framework for multilateral cooperation among the States Parties, including exchange of information among scientists and technologists, with the aim of, inter alia::*

*(i) Utilizing the scientific and technological capabilities, experience and know-how of States Parties;*

*(ii) Facilitating harmonization of relevant existing national regulatory and administrative procedures;*

*(iii) Assisting developing countries which are States Parties in strengthening their scientific and technological capabilities in the biosciences, genetic engineering and biotechnology.*

*16. The Organization, after consultation, as appropriate, with other relevant international organizations, agencies and programmes, may make recommendations, as appropriate, to the Conference of States Parties to suggest further practical steps for the effective and full implementation of Article X of the Convention and this Article.*

90. It is concluded that a number of specific measures have been identified which will advance the *effective and full implementation of Article X* and should be included within Article VII of the Protocol. The OPCW information makes it clear that most of these measures would not incur any increased cost over that which has already been assumed in estimating that a future BTWC Organization will have about 200 people and an annual budget of less than \$30 M.

## BIOTRACK LINKS TO OTHER BIOTECHNOLOGY OR BIOSAFETY RESOURCES

(As listed on <http://www.oecd.org/ehs/biolinks.htm>)

### National Biotechnology Web Sites

#### Australia

- Australia's Genetic Manipulation Advisory Committee
- The Department of Industry, Science and Technology
- Communicable Diseases Intelligence
- Department of Health and Family Services
- CSIRO Division of Food Science and Technology
- National Food Authority
- Australian Biotechnology Association

#### Austria

- Federal Chancellery/Ministry of Women's Affairs and Consumer Protection / Gentechnik
- Federal Ministry of Science and Traffic/ Gentechnik
- Federal Ministry of the Environment, Youth and Family Affairs / Federal Environment Agency

#### Belgium

- The Belgian Biosafety Server
- The Federal Ministry of Public Health and Environment

#### Canada

- Canadian Food Inspection Agency,
- List of Varieties with Novel Traits and Their Progeny
- Environment Canada
- Health Canada's - Food Program (including Novel Foods)
- Fisheries and Oceans Canada
- The Canadian Biotechnology Strategy Online (Industry Canada)
- Food Biotechnology Communication Network FoodNet

#### Denmark

- Statens Serum Institut, Nyhedsbreve/Newsletters

#### France



- Ministère du Travail et des Affaires Sociales, Direction Générale de la Santé, Bulletin épidémiologique hebdomadaire
- Institut national d'études démographiques, Direction de Recherche "Mortalité, santé, épidémiologie"
- Institut Pasteur

#### Finland

- National Public Health Institut, Kansanterveyslaitos

#### Germany

- Robert Koch-Institut (Department of Genetics and Gene Technology)
- Federal Biological Research Centre for Agriculture and Forestry
- Federal Environmental Agency

#### Greece

- General Secretariat for Research and Technology

#### Hungary

- Agricultural Biotechnology Center

#### Ireland

- Department of Agriculture and Food

#### Japan

- Ministry of Agriculture, Forestry and Fisheries (Innovative Technology Division)
- Science and Technology Agency
- Monbusho (Ministry of Education, Sports and Culture)
- Ministry of Health and Welfare
- Ministry of International Trade and Industry
- National Institute of Health, Infectious Agents Surveillance Report
- National Institute of Health Sciences
- World Data Centre for Microorganisms

#### Mexico

- The Virtual Center of Biotechnology for the Americas
- Health Secretary

#### Norway

- The Norwegian Biotechnology Advisory Board

## Netherlands

- Biosafety in the Netherlands
- Jaargang nummer Infectieziekten bulletin
- Department of Pesticide Residue Analysis , National Institute of Public Health and Environmental Protection
- Laboratory of Water & Food Microbiology , National Institute of Public Health and Environmental Protection
- TNO Nutrition and Food Research Division , TNO Biotechnology and Chemistry Institute

## New Zealand

- Food Administration, Ministry of Health
- The New Zealand Biotechnology Association

## Poland

- Ministry of Agriculture and Food Economy, and Ministry of Environmental Protection

## Sweden

- The National Food Administration

## Switzerland

- BATS - Biosafety Research and Assessment of Technology Impacts, of the Swiss Priority Programme on Biotechnology
- Public Register Biotechnology

## United Kingdom

- The UK Department of the Environment (DoE) Advisory Committee on Releases to the Environment (ACRE)
- The UK Department of Trade and Industry BioGuide
- Communicable Disease Report
- INFOSCAN - Southern Communicable Disease Report
- Ministry of Agriculture, Forestry and Fisheries (MAFF)
- Food Science Laboratory , MAFF
- Department of Health
- Institute of Food Science & Technology (IFST)
- Links to other biotechnology education sites around the world (University of Reading)
- Forest Biotechnology 99 (University of Oxford)
- BUBL LINK: Catalogue of selected Internet resources

## United States

- USDA: Biotechnology and Scientific Services (BSS)- the United States Department of Agriculture (Animal Plant Health Inspection Service)

- Biotechnology Information Center (the National Agricultural Library of the US Department of Agriculture)
- Office of Prevention, Pesticides and Toxic Substances - the United States Environment Protection Agency
- Office of Pollution Prevention and Toxics TSCA Biotechnology Program - the United States Environment Protection Agency
- BioPesticides And Pollution Prevention Division (BPPD) - Office of Pesticide Programs - the United States Environment Protection Agency
- FDA : Center for Food Safety and Applied Nutrition (CFSAN)- the United States Food and Drug Administration
- National Biological Impacts Assessment Programme - Operated by Information Systems for Biotechnology, a joint project of Virginia Tech and USDA
- Agricultural Genome Information Server - sponsored by the U.S. Department of Agriculture, Agricultural Research Service
- The Parrott laboratory (Department of Crop and Soil Sciences at the University of Georgia)
- Food Chemical News
- Food Safety Consortium
- International Food Information Council Foundation
- Institute of Food Science and Engineering, Texas A&M Univ
- National Food Safety Database, Univ of Florida
- Emerging Infectious Diseases, CDC
- Morbidity & Mortality Weekly Report, CDC
- Communicable Disease Surveillance Centre (CDSC)
- Centre for Disease Control and Prevention (CDC)
- Food Safety and Inspection Service (FSIS)
- National Institutes of Health (NIH)
- United States Public Health Service
- New York State Department of Health
- Center for Food Safety and Applied Nutrition , FDA
- NSF International
- Division of Bacterial & Mycotic Diseases , Ceter for Infectious Diseases , CDC
- Food Safety Unit , School of Veterinary Medicine , University of California
- Food Safety Research Program Iowa , Iowa State University of Science and Technology
- Emerging Infectious Diseases (Published by USCDC)
- ProMED , Federation of American Scientists
- Communicable Disease Prevention & Control (CDPC)
- BioChemNet (Biology and Chemistry Educational Resource Center)
- AgBioForum (Online quarterly magazine)
- Illinois Missouri Biotechnology Alliance
- Information Systems for Biotechnology

### **European Commission**

- Directorate-General XI: Environment, Nuclear Safety and Civil Protection
- Directorate-General III: Industry
- Directorate-General VI: Agriculture
- Directorate-General VII: Transport

- Directorate-General XII: Science, Research and Development - Information on Biotechnology
- Directorate-General XXIV: Consumer Policy and Consumer Health Protection - Scientific Committee on Plants -
- European Commission Joint Research Centre - Institut for Systems, Informatics and Safety
- EuroSurveillance, European Union

### **International Organisations**

- UNIDO's Biosafety Information Network and Advisory Service
- International Centre for Genetic Engineering and Biotechnology, Biosafety WebPages
- UNEP's International Register on Biosafety
- Convention on Biological Diversity
- Clearing-House-Mechanism under the Convention on Biological Diversity
- An Unofficial Clearing House of Information on the Convention on Biological Diversity Prepared by the International Institute for Sustainable Development
- Conduct for Plant Biotechnology - FAO's Commission on Genetic Resources For Food and Agriculture
- International Plant Genetic Resources Institute
- WHO's Programme of Food Safety and Food Aid / Food Safety Unit
- Codex Alimentarius and the Joint FAO/WHO Food Standards Programme
- Technical Co-operation Network on Plant Biotechnology in Latin America and the Caribbean (REDBIO/FAO)
- Applied Biotechnology Center, International Maize and Wheat Improvement Center (CIMMYT)

### **Non Member Countries**

- Ministry of Health , Brazil
- Health Sciences Center , Kuwait
- Malaysia Biosafety Online
- Ministry of Health , Singapore
- Food Laboratory, Institute of Science and Forensic Medicine, Singapore

### **Other Bodies**

- The International Resource on Releases of Organisms to the Environment
- Bioline Publications
- Biotechnology Advisory Commission (Stockholm Environment Institute)
- B.I.O.S.I.S.
- BIO Online A site maintained by the Biotechnology Industry Association (BIO), the Institute for Biotechnology Information (IBI) and Vitadata Corporation
- European Federation of Biotechnology - Working Party on Biosafety
- BioSpace- a site with a focus on the biotech industry
- Biz-Biotech
- The WWW Virtual Library Biotechnology Catalogue
- The World Seed Info (FIS & ASSINSEL)
- The BioMedNetMagazine "HMS Beagle"
- Electronic Journal of Biotechnology

- Green Industry Biotechnology Platform (GIBiP)
- International Life Sciences Institute (ILSI)
- The Journal of Agricultural Genomics (JAG)
- The Food Safety Home Page
- AgBiotech News and Information
- Nature Biotechnology
- In Vitro Testing Industrial Platform (IVTIP): informal forum of European companies with an active interest in in vitro testing
- Animal Cell Technology Industrial Platform (ACRTIP): informal forum of European companies with activities in animal cell technology

## WEBSITES FOR DISEASE OUTBREAK AND SURVEILLANCE INFORMATION

## (An Illustrative Listing)

**International Organizations**

<b><i>World Health Organization (WHO)</i></b>	
Disease outbreak news	<a href="http://www.who.int/emc/outbreak_news/index.html">http://www.who.int/emc/outbreak_news/index.html</a>
Weekly Epidemiological Record	<a href="http://www.who.int/wer/">http://www.who.int/wer/</a>
<b><i>Organization International des Epizooties (OIE)</i></b>	
Disease Information	<a href="http://www.oie.int/info/A_info.htm">http://www.oie.int/info/A_info.htm</a>
<b><i>Food and Agriculture Organization (FAO)</i></b>	
Global Plant & Pest Information System	<a href="http://pppis.fao.org/Content.htm">http://pppis.fao.org/Content.htm</a>
Infectious Diseases Group	<a href="http://www.fao.org/waicent/FAOINFO/Agricult/aga/aga_h/id/index.htm">http://www.fao.org/waicent/FAOINFO/Agricult/aga/aga_h/id/index.htm</a>
RADISCON Regional Animal Disease Surveillance and Control Network	<a href="http://www.fao.org/ag/aga/agah/id/Radiscon/default.htm">http://www.fao.org/ag/aga/agah/id/Radiscon/default.htm</a>
EMPRES Emergency Prevention System for Transboundary Animal & Plant Pests and Diseases	<a href="http://www.fao.org/waicent/FAOINFO/Agricult/aga/aga_h/EMPRES/info2.htm">http://www.fao.org/waicent/FAOINFO/Agricult/aga/aga_h/EMPRES/info2.htm</a>
<b>Regional Organizations</b>	
<b><i>Eurosurveillance</i></b>	
Eurosurveillance Weekly	<a href="http://www.eurosurv.org">http://www.eurosurv.org</a>
<b><i>Pan American Health Organization (PAHO)</i></b>	
New Emerging and Re-Emerging Diseases	<a href="http://www.paho.org/english/hcp/hcteme01.htm">http://www.paho.org/english/hcp/hcteme01.htm</a>
<b><i>BIREME - a centre of the Organizacion Panamericana de la Salud (OPS)</i></b>	
BVS Virtual Health Library	<a href="http://www.bireme.br/bvs/1/ihome.htm">http://www.bireme.br/bvs/1/ihome.htm</a>

<b>National Organizations</b>	
<b><u>Australia</u></b>	
Communicable Diseases - Australia	<a href="http://www.health.gov.au/pubhlth/cdi/cdihtml.htm">http://www.health.gov.au/pubhlth/cdi/cdihtml.htm</a>
Other Australian and International Communicable Diseases sites	<a href="http://www.health.gov.au/pubhlth/cdi/cdilinks.htm#international%20Sites">http://www.health.gov.au/pubhlth/cdi/cdilinks.htm#international%20Sites</a>
<b><u>Bolivia</u></b>	
Ministerio de Salud	<a href="http://www.minsalud.gov.co/publicacion">http://www.minsalud.gov.co/publicacion</a>
<b><u>Brazil</u></b>	
Ministerio de Saude	<a href="http://www.saude.gov.br/principal.htm">http://www.saude.gov.br/principal.htm</a>
<b><u>Canada</u></b>	
Canada Communicable Disease Report	<a href="http://www.hc-sc.gc.ca/hpb/lcdc/publicat/ccdr/">http://www.hc-sc.gc.ca/hpb/lcdc/publicat/ccdr/</a>
<b><u>Chile</u></b>	
Ministerio de Salud	<a href="http://www.minsal.cl/">http://www.minsal.cl/</a>
<b><u>France</u></b>	
National Institute for Public Health Surveillance (Institut de Vielle Sanitaire)	<a href="http://www.rnsp-sante.fr/accueil_uk.html">http://www.rnsp-sante.fr/accueil_uk.html</a>
<b><u>India</u></b>	
Ministry of Health and Family Welfare	<a href="http://www.nic.in/mohfw/cont0.0.html">http://www.nic.in/mohfw/cont0.0.html</a>
<b><u>Japan</u></b>	
National Institute of Infectious Diseases	<a href="http://www.nih.go.jp/niid/index-e.html">http://www.nih.go.jp/niid/index-e.html</a>
Infectious Agents Surveillance Report	<a href="http://www.idsc.nih.go.jp/iasr/index.html">http://www.idsc.nih.go.jp/iasr/index.html</a>
<b><u>South Africa</u></b>	
Disease Prevention and Control	<a href="http://www.health.gov.za/cdpc.htm">http://www.health.gov.za/cdpc.htm</a>
<b><u>United Kingdom</u></b>	
Public Health Laboratory Service	<a href="http://www.phls.co.uk">http://www.phls.co.uk</a>

Communicable Disease Report Weekly Notifications of Infectious Diseases	<a href="http://www.phls.co.uk/publications/cdr/htm">http://www.phls.co.uk/publications/cdr/htm</a> <a href="http://www.phls.co.uk/facts/noid-t01.htm">http://www.phls.co.uk/facts/noid-t01.htm</a>
MAFF Information on public and animal health	<a href="http://www.maff.gov.uk/animalh/animindx.htm">http://www.maff.gov.uk/animalh/animindx.htm</a>
<b><u>United States</u></b>	
CDC Emerging Infectious Diseases	<a href="http://www.cdc.gov/ncidod/eid/index.htm">http://www.cdc.gov/ncidod/eid/index.htm</a>
CDC Health Information (listing by disease)	<a href="http://www.cdc.gov/health/diseases.html">http://www.cdc.gov/health/diseases.html</a>
CDC Morbidity & Mortality Weekly Report	<a href="http://www2.cdc.gov/mmwr/">http://www2.cdc.gov/mmwr/</a>
USDA Center for Emerging issues	<a href="http://www.aphis.usda.gov/vs/ceah/cei/cei-act.htm">http://www.aphis.usda.gov/vs/ceah/cei/cei-act.htm</a>
<b>Other Organizations</b>	
ProMED-mail	<a href="http://www.healthnet.org/programs/promed.html">http://www.healthnet.org/programs/promed.html</a>
HealthNet: SatelLife's Global Communications Network	<a href="http://www.healthnet.org/hnet/hent.html">http://www.healthnet.org/hnet/hent.html</a>
The World-Wide Web Virtual Library : Epidemiology (Department of Epidemiology and Biostatistics, University of California at San Francisco)	<a href="http://www.epibiostat.ucsf.edu/epidem/epidem.html">http://www.epibiostat.ucsf.edu/epidem/epidem.html</a>



## Communicable Diseases - Australia

(As listed on <http://www.health.gov.au/pubhlth/cdi/cdilinks.htm#international%20Sites>)

National Centre for Disease Control/Communicable Diseases Network Australia New Zealand

Australian Department of Health and Aged Care

### Other Australian and International Communicable Diseases sites

#### Latest Health Information Site

<http://www.health.gov.au/pubhlth/alert.htm>

#### Australian Sites

##### State and Territory Government Department sites

Australian Capital Territory	<a href="http://www.health.act.gov.au/">http://www.health.act.gov.au/</a>
New South Wales	<a href="http://www.health.nsw.gov.au/">http://www.health.nsw.gov.au/</a>
Northern Territory	<a href="http://www.nt.gov.au/">http://www.nt.gov.au/</a>
Queensland	<a href="http://www.health.qld.gov.au/">http://www.health.qld.gov.au/</a>
South Australia	<a href="http://www.health.sa.gov.au/">http://www.health.sa.gov.au/</a>
Tasmania	<a href="http://www.dchs.tas.gov.au/">http://www.dchs.tas.gov.au/</a>
Victoria	<a href="http://www.vichealth.vic.gov.au/">http://www.vichealth.vic.gov.au/</a>
Western Australia	<a href="http://www.health.wa.gov.au/">http://www.health.wa.gov.au/</a>

#### Others

Health Communication Network	<a href="http://www.hcn.net.au/">http://www.hcn.net.au/</a>
The Australian Institute of Health and Welfare	<a href="http://www.aihw.gov.au/">http://www.aihw.gov.au/</a>
The National Centre for Epidemiology and Population Health	<a href="http://www-nceph.anu.edu.au/">http://www-nceph.anu.edu.au/</a>
Medical Journal of Australia	<a href="http://www.mja.com.au/">http://www.mja.com.au/</a>
The Department of Public Health and Tropical Medicine	<a href="http://www.jcu.edu.au/dept/PHTM/">http://www.jcu.edu.au/dept/PHTM/</a>
Department of Community Medicine, University of Adelaide	<a href="http://www.health.adelaide.edu.au/ComMed/index.html">http://www.health.adelaide.edu.au/ComMed/index.html</a>
The Australian Centre for International and Tropical Health and Nutrition	<a href="http://www.acithn.uq.edu.au">http://www.acithn.uq.edu.au</a>



















