

**SIXTH REVIEW CONFERENCE OF THE STATES
PARTIES TO THE CONVENTION ON THE
PROHIBITION OF THE DEVELOPMENT,
PRODUCTION AND STOCKPILING OF
BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN
WEAPONS AND ON THEIR DESTRUCTION**

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Item 10 of the provisional agenda

**Review of the operation of the
Convention as provided for in its Article XII**

**BACKGROUND INFORMATION DOCUMENT ON DEVELOPMENTS SINCE THE
LAST REVIEW CONFERENCE IN OTHER INTERNATIONAL ORGANIZATIONS
WHICH MAY BE RELEVANT TO THE CONVENTION**

Prepared by the Secretariat

I. Introduction

1. In paragraph 22 of its report (BWC/CONF.VI/PC/2), the Preparatory Committee for the Sixth Review Conference decided to request the Secretariat to compile a background information document on developments since the last Review Conference in other international organizations which may be relevant to the Convention. The Secretariat has prepared this document in accordance with that request.

2. This document reviews developments in the United Nations (including the Security Council, Secretariat, specialised agencies, and committees) and other international organizations, as well as in some particularly relevant international commercial and scientific organizations (such as the International Council for Science and the International Air Transport Association). Entries have been kept as concise as possible, and Internet addresses are provided for further information. Where developments have been covered in earlier BWC documents, references to those documents are provided and only brief updates have been included here. Please note that any reference to "the Convention" in this document means the Biological Weapons Convention, unless otherwise specified.

3. The Secretariat has taken an inclusive approach to determining what may be relevant to the Convention. Some organizations have been included because although they are not directly or explicitly involved with biological weapons issues, their activities may be related to the provisions of Article III (preventing transfer of biological weapons), Article IV (national implementation, particularly with respect to terrorism), Article VII (assistance in the case of use or threat of use of biological weapons) or Article X (peaceful uses of biological science and technology). The annex provides a listing of organizations by area of activity.

II. The United Nations and Specialised Agencies

1540 Committee

<http://disarmament2.un.org/Committee1540/>

4. On 28 April 2004 the United Nations Security Council (UNSC) adopted Resolution 1540 on the Non-Proliferation of Weapons of Mass Destruction. The resolution affirmed that the proliferation of biological weapons (as a type of weapon of mass destruction) posed a threat to international peace and security and that the UNSC would take appropriate and effective action against any such threat. The UNSC expressed grave concern that these weapons (and the required resources or materials) might be acquired, developed, trafficked or used by non-state actors. To counter this threat, the UNSC, acting under Chapter VII of the Charter of the United Nations, decided that:

- (i) all states should refrain from assisting non-state actors from developing, acquiring, manufacturing, possessing, transporting, transferring or using biological weapons;
- (ii) all states should adopt and enforce laws to prohibit such activities; and
- (iii) all states should take domestic measures, including establishing appropriate control regimes, to prevent the proliferation of materials associated with biological weapons.

5. To support the resolution, the UNSC established a committee, comprising the fifteen members of the Security Council. The committee has been aided by a number of experts and is serviced by the UN Department for Disarmament Affairs. Resolution 1540 gave a two-year mandate to the committee: in Resolution 1673 of 27 April 2006, the UNSC renewed this mandate for another two years. Resolution 1673 also invited the 1540 Committee to explore with states and international, regional and sub-regional organizations experience-sharing, lessons learned and the availability of programmes which might facilitate the implementation of areas covered by the resolutions.

6. The 1540 Committee has made considerable progress in implementing the resolutions. The most recent report from its Chairman¹ (published just prior to the renewal of the mandate) indicates that as of 20 April 2006: 129 states had submitted a report detailing relevant national laws and measures; 62 states had failed to submit any national reports; and 79 states have provided additional information resulting from subsequent requests for clarification by the 1540 Committee. In relation to national frameworks to implement the Convention:

- (i) 56 states cover at least some of the prohibitions;
- (ii) 75 states penalise violations of the prohibitions in their criminal codes; and
- (iii) the manufacture/production and acquisition of biological weapons are the prohibitions most commonly reported as having been implemented.

7. For legislative and enforcement measures to control access to weapons related materials:

- (i) 54 states provided information;

¹ S/2006/257.

- (ii) The majority detailed biosafety and biosecurity legislation and regulations;
- (iii) 17 states reported legislation and regulations for accounting;
- (iv) Most states have different laws for human, animal and plant pathogens and different implementing organizations are responsible for these laws – usually public health, veterinary health and plant control agencies;
- (v) Some states reported additional legislation to regulate genetic engineering;
- (vi) 48 states reported legislation for licensing or registration requirements in relation to hazardous biological agents; and
- (vii) 49 states reported criminal or administrative penalties and sanctions for violations of biosafety and biosecurity measures.

8. Information from the national reports was compiled into a database, much of which is available on the Committee's website.

Economic and Social Council (ECOSOC)

<http://www.unece.org/trans/danger/danger.htm>

9. ECOSOC plays an important role in establishing guidelines for the transport of dangerous goods, including infectious biological agents and toxins. ECOSOC has a Committee of Experts on the Transport of Dangerous Goods (TDG) and on the Globally Harmonized System of Classification and Labelling (GHS). The sub-committee on the Transport of Dangerous Goods has met six times since the Fifth Review Conference concluded in 2002. Amongst its duties is the revision of two key texts: the UN Recommendations on the Transport of Dangerous Goods (which include UN Model Regulations)² and the UN Manual of Tests and Criteria.³

10. The UN Recommendations on the Transport of Dangerous Goods are designed to account for technical progress, the advent of novel substances and materials, the changing dynamics of modern transport systems and a requirement to protect people, property and the environment. They do not apply to the bulk transport of dangerous goods by sea or by air: these are covered, respectively, by the International Maritime Organization and the International Civil Aviation Organization (see the respective sections below).

11. The model regulations appended to the Recommendations include a scheduled characterisation of dangerous goods. Class 6 covers toxic and infectious substances; perhaps also relevant is Class 9 which includes genetically modified organisms. Toxins are characterised according to the median lethal dose for acute oral, dermal and inhalation toxicity. Infectious agents are divided into two categories: A and B. Category A includes infectious substances which are transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease in otherwise healthy humans or animals. Category B encompasses all other infectious substances. Depending on the nature of the infectious agent or toxin involved, different packaging precautions are detailed.

² UN Recommendations on the Transport of Dangerous Goods, 14th Revised Edition, 2005, http://www.unece.org/trans/danger/publi/unrec/rev14/14files_e.html.

³ UN Manual of Tests and Criteria, 4th Revised Edition, 2004, http://www.unece.org/trans/danger/publi/manual/pubdet_manual.html.

Food and Agriculture Organization (FAO)

<http://www.fao.org>

12. A number of FAO activities relevant to the Convention were considered during the Meeting of Experts and Meeting of States Parties in 2004 (see BWC/MSP/2004/MX/INF.1 and BWC/MSP/2004/MX/INF.2). FAO plays a critical role in preventing and responding to natural and human-made disasters as well as complex emergencies. It has developed a number of technical guides on best practices for emergency management and is currently consolidating them into a comprehensive emergency preparedness and response manual. FAO has different programmes and departments to cover prevention, preparedness and early warning, as well as impact and needs assessments, emergency relief and rehabilitation. It also services the International Plant Protection Convention.

Prevention, Preparedness and Early Warning

13. In addition to providing member states with technical assistance to strengthen their capacity to prevent or mitigate emergencies, the FAO also assists them in minimising the adverse effects of disasters through precautionary actions, for example through the Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases (EMPRES) and the FAO/OIE/WHO Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs). FAO's preparedness assistance includes: the development of institutional frameworks at the regional, national and local levels for managing risk and coping with emergencies, including, for example, biosafety (FAO collaborates with UNEP and WHO in a working group on biosafety); the development of regional and national early warning and food information systems; the establishment and management of food security reserves; and the formulation of preparedness plans to be used in the event of a disaster. The Good Emergency Management Practice programme (GEMP) plays a key role in emergency preparedness. For early warning, the FAO participates in the FAO/OIE/WHO Global Early Warning System (GLEWS). See BWC/MSP/2004/MX/INF.1 and BWC/MSP/2004/MX/INF.2 for more information on these activities.

Impact and Needs Assessments, Emergency Relief and Rehabilitation

http://www.fao.org/reliefoperations/index_en.asp

14. Once an emergency has been declared the first step is assessing the need for humanitarian assistance. The FAO/World Food Programme Crop and Food Supply Assessment Missions produce such an assessment. The World Food Programme then provides emergency humanitarian relief. Emergency agricultural relief is provided by the FAO's Special Relief Operations Service, which carries out its own needs assessment, mobilises resources, conducts monitoring and impact assessments and advises and supports the preparation of rehabilitation programmes.

International Plant Protection Convention (IPPC)

<https://www.ippc.int>

15. Since the last BWC review conference, the Interim Commission on Phytosanitary Measures (ICPM) of the IPPC has agreed on new or revised international standards including:

- (i) Guidelines for the Transport, Shipment, Import and Release of Biological Control Agents and other Beneficial Organisms;⁴
- (ii) A Glossary of Phytosanitary Terms;⁵
- (iii) Pest Risk Analysis for Quarantine Pests, including analysis of environmental risks and living modified organisms;⁶ and
- (iv) Pest Risk Analysis for Regulated Non-Quarantine Pests⁷.

International Maritime Organization (IMO)

http://www.imo.org/Newsroom/mainframe.asp?topic_id=861

16. The IMO has a long history of involvement in the transport of dangerous goods. In the 1960s the International Maritime Dangerous Goods code (IMDG) was developed to address pressing safety and security issues. The IMDG was updated in 2002 when the IMO met to review security facets of its work. During this meeting the IMDG was made mandatory, effectively establishing an international legally binding instrument to ensure the maritime safety and security of dangerous goods (including toxic and infectious substances). In addition to revising the IMDG, the IMO has become increasingly active in maritime security and has developed an entire maritime security regime. In December 2002 a number of amendments to the 1974 International Convention for the Safety of Life at Sea (SOLAS) were adopted, including the new International Ship and Port Facility Code (ISPS). In 2004, the Code of Practice on Security in Ports (CPSP) was adopted, complementing the provisions of the ISPS with respect to security of the wider port area.

Office for the Coordination of Humanitarian Affairs (OCHA)

<http://ochaonline.un.org/>

17. OCHA is tasked with mobilising and coordinating effective and principled humanitarian action in partnership with national and international humanitarian actors in order to alleviate human suffering in natural disasters and complex emergencies; advocate for the rights of people in need; promote preparedness and prevention; facilitate sustainable solutions; and engage in policy and information development. Two triggers exist for OCHA's involvement in an event: (1) if it exceeds the operational capacity of one UN agency; or (2) if a request has been made by a member state for humanitarian assistance.

18. OCHA has already participated in a number of exercises involving chemical, biological, radiological and nuclear agents. It has no specific policies for biological weapons events and will likely defer to one of its humanitarian partners to co-ordinate a humanitarian response. It is unlikely that OCHA would become involved unless an event triggered large movements of people either internally or across borders. OCHA field staff are not trained, nor do they maintain emergency plans, to deal with events involving biological weapons.

19. OCHA maintains an in-house emergency response capacity, supported by a 24-hour monitoring and alert system, to deploy staff at short notice to rapidly evolving catastrophic

⁴ https://www.ippc.int/cds_upload/1146657660135_ISPM3.pdf.

⁵ <https://www.ippc.int/servlet/CDSServlet?status=ND0xMzI5Mi4yNTA4MSY2PWVvUjJmZWV2ZW50cyYzNz1pbmZv>.

⁶ <http://www.fao.org/docrep/008/y5874e/y5874e00.htm>.

⁷ <http://www.fao.org/docrep/007/y5722e/y5722e00.htm>.

events. In addition OCHA supports several "surge capacity" mechanisms and networks that enable the humanitarian community to respond quickly to emergencies and disasters.

20. The Civil Military Co-ordination Service (CMCS) is the focal point within the UN System for mobilising military assets requested by UN country representatives, and includes:

- (i) Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief;
- (ii) Inter-agency Standing Committee Reference Paper on Civil Military Relations in Complex Emergencies;
- (iii) The Use of Military and Civil Assets in Support of Humanitarian Activities in Complex Emergencies;
- (iv) The Use of Military or Armed Escorts for Humanitarian Guidance; and
- (v) Country-specific guidance.

Only after all other resources are exhausted are military and civil defence assets requested. CMCS can request personnel, specific expertise and/or equipment from donor states. Such assets are provided free of charge to the disaster-stricken country.

21. The CMCS maintains a register of relevant assets and acts as a clearing house, matching requests for assistance from states, intergovernmental and non-governmental organizations against the register. Following approval to deploy an asset by the state that owns it, CMCS then coordinates its transport and initiation. The register currently includes various assets relating to the preparedness and response to biological weapons events. These include modules on: assistance to populations affected by nuclear, biological and chemical agents; mobile laboratories; and protection. OCHA is currently attempting to update its register with respect to nuclear, biological and chemical agents and has requested states to provide information on detection vehicles, sensor teams, decontamination, mobile laboratories, detection assets, assistance and protection.

UN Disaster Co-ordination and Assessments Teams (UNDAC)

22. UNDAC is a stand-by team of disaster management professionals nominated and funded by UN Member States, OCHA, UNDP, the World Food Programme, UNICEF, and the WHO. Upon request, an UNDAC team is rapidly deployed into a disaster-struck country to assess priority needs and to support national capacity. UNDAC focuses on natural disasters and as a result has a long history of dealing with secondary disease.

Environmental Emergencies Section

23. The Group of Environmental Standby Experts is housed in the Environmental Emergencies Partnership, a joint unit shared between OCHA and the UN Environment Programme (UNEP). It mobilises and coordinates the international response to environmental emergencies and natural disasters with major environmental impacts, providing a similar capacity for environmental disasters as UNDAC does for natural disasters. The group has three core functions: to provide emergency assistance; to provide response preparedness assistance; and to act as a secretariat to the Environmental Emergencies Partnership. Key functions include: monitoring; notification; assessment; mobilization of assistance; brokerage; acting as an information clearing house; and providing financial assistance.

Other OCHA Coordination Activities

24. OCHA also possesses a Register of Stockpiles comprising national assets which could be made available to respond to an emergency. Permission is required from the state which owns the asset. The Register currently includes a range of vaccines (both prophylactic and post-exposure). There is also a Register of Rosters of Disaster Management Expertise which contains details of disaster management professionals. It contains expertise ranging from general disaster to response to highly specialised fields and incorporates personnel from the UN, intergovernmental organizations, non-governmental organizations and states.

25. OCHA also maintains a Directory of Contact Points for Disaster Response, listing organizations which have been designated to take the lead in certain events, such as the FAO, WHO, OPCW, IAEA, the World Food Programme and the International Air Transport Association.

Secretary-General of the United Nations

<http://www.un.org/News/pressg/sg/index.shtml>

26. Since 1982, the Secretary-General has been tasked by the General Assembly with investigating the use or alleged use of biological, chemical or toxin weapons. The mechanism developed for his use in such instances was considered during the 2004 Meeting of Experts and Meeting of States Parties of the Convention. There have been no relevant developments since this mechanism was last described (BWC/MSP/2004/MX/INF.3).

27. The Secretary-General has published a number of relevant reports since the last review conference of the Convention. Those which contain recommendations specific to the Convention include:

- (i) *A More Secure World: Our Shared Responsibility (2004)*: compiled by the High Level Panel on Threats, Challenges and Change. As part of its consideration of collective security and the challenge of preventing proliferation, the High Level Panel examined both terrorism and weapons of mass destruction.⁸
- (ii) *In Larger Freedom: Towards Development, Security and Human Rights For All (2005)*: part of the follow-up to the outcome of the Millennium Summit, this report included a section on Freedom from Fear which in part addressed catastrophic terrorism and weapons of mass destruction. The report recommended strengthening public health as the primary defence against biological terrorism, and also made specific recommendations on the Convention.⁹
- (iii) *Uniting Against Terrorism, Recommendations for a Global Counter-Terrorism Strategy (2006)*: a further follow-up on the outcome of the Millennium Summit, the report makes a number of recommendations on weapons of mass destruction

⁸ <http://www.un.org/secureworld/>.

⁹ <http://www.un.org/largerfreedom/>.

and terrorism, and on the need to engage and coordinate the efforts of different stakeholders to ensure that biotechnology is not misused.¹⁰

United Nations Development Programme (UNDP)

<http://www.undp.org/>

28. UNDP is home to the UN Disaster Management Training Programme and was instrumental in establishing the International Vaccine Institute.

United Nations Disaster Management Training Programme (DMTP)

<http://www.undmtp.org/>

29. DMTP is a learning platform addressing crises, emergencies and disasters for UN Member States, the UN system and international and non-governmental organizations. DMTP raises awareness of the need for more effective crisis and disaster management to reduce risks and vulnerabilities. DMTP's objective is to: reduce the incidence and impact of crisis and disaster occurrences in programme countries; eliminate risks and vulnerabilities to such events; promote effective national and regional strategies in crises and disaster prevention, preparedness, mitigation, response and recovery; and encourage efficient coordination and collaboration at all phases of crisis and disaster management.

30. Over recent years, DMTP has conducted more than 70 workshops involving around 6,000 participants in Africa, Latin America and the Caribbean, Asia and the Pacific, the Middle East, and the Commonwealth of Independent States. Currently, training modules cover many general aspects of disaster management.

International Vaccine Institute (IVI)

<http://www.ivi.org>

31. The IVI contributes to the reduction of vaccine-preventable diseases in developing countries. It attempts to achieve this by collaborative research for new vaccines, as well as programs of basic and applied laboratory research, product development, training, and technical assistance. The organization lists recent achievements as including:

- (i) creating teams of scientists and technical specialists;
- (ii) forming networks for studies of vaccines;
- (iii) developing a program to accelerate the development and introduction of vaccines;
- (iv) measuring the disease burden in Asian children for a range of diseases;
- (v) developing a program for Japanese encephalitis;
- (vi) providing technical assistance and training programs;
- (vii) forming collaborative networks with vaccine manufacturers; and
- (viii) providing training in the clinical evaluation of vaccines.

¹⁰ <http://www.un.org/unitingagainstterrorism/>.

United Nations Educational, Scientific and Cultural Organization (UNESCO)
<http://www.unesco.org/ethics>

32. UNESCO has become increasingly active in the area of scientific and technological ethics in recent years and currently lists the topic as one of its five priority areas. It aims to strengthen the ethical link between scientific advancement and the cultural, legal, philosophical and religious context in which it occurs. UNESCO's activities were considered during the 2005 Meeting of Experts and Meeting of States Parties, dealing with codes of conduct for scientists (BWC/MSP/2005/MX/INF.1).

33. There have been three important developments since UNESCO's activities were last considered. First, in October 2005, the General Conference of UNESCO adopted a Universal Declaration on Bioethics and Human Rights.¹¹ The declaration provides a framework for dealing with the ethical issues highlighted by medicine, life sciences and associated technologies as applied to human beings and the environment. Second, UNESCO has compiled a series of databases on ethics in science and technology collectively known as the Global Ethics Observatory (GEObs).¹² GEObs, launched on 15 December 2005, is designed to serve as a resource hub of ethics activities around the world.

34. Finally, the World Commission on Ethics of Scientific Knowledge and Technology (COMEST), which is housed in UNESCO, has continued to examine codes of conduct for scientists. The October 2005 meeting of the UNESCO General Conference demonstrated that not all states were convinced of the necessity to develop a normative instrument in the area of scientific ethics and that as a result any further work, including initiating a feasibility study, would be premature. UNESCO and COMEST were requested to reflect on the question of scientific ethics. As a result COMEST is reflecting on how UNESCO can contribute to the international debate on scientific and technological ethics and responsibility. It has set out a three-point plan for its activities in 2006 and 2007, namely to: survey the wider field of scientific ethics in an attempt to identify topics for future international action; conduct consultations with scientists, philosophers and policymakers in all regions; and undertake consultation with relevant organizations and stakeholders in UN member states. COMEST has held three national consultations in Japan, India and Thailand. There have also been two regional consultations in Europe and Latin America, with an additional two planned for 2007 in Africa and the Middle East.

United Nations Environment Programme (UNEP)
<http://www.unep.org>

35. As well as being a partner in activities covered elsewhere in this paper (see the Working Group on Biosafety in the WHO section, and the Environmental Emergencies Partnership in the OCHA section), UNEP also supports a number of international agreements which may be relevant to the BWC, including the Convention on Biological Diversity and the Basel Convention.

¹¹ <http://unesdoc.unesco.org/images/0014/001461/146180E.pdf>.

¹² <http://www.unesco.org/shs/ethics/geobs>.

The Convention on Biological Diversity (CBD)<http://www.biodiv.org>

36. Under the framework of the CBD, the Cartagena Protocol on Biosafety¹³ encompasses a range of measures, policies and procedures for minimising potential risks that biotechnology may pose to the environment and human health. It deals primarily with the cross border movement, transfer, handling and use of genetically modified organisms that are to be intentionally introduced into the environment, and with genetically modified farm commodities. It employs a number of tools, including: advance informed agreement procedure; a simplified system for agricultural commodities; risk assessment; risk management and emergency procedures; export documentation; the Biosafety Clearing House; capacity building and financing; and public awareness and participation. The Biosafety Clearing House (BCH) is an information exchange mechanism to facilitate the implementation of the protocol.¹⁴ It was mandated to: facilitate the exchange of scientific, technical, environmental information on, and experience with, living modified organisms; and to assist parties to implement the Biosafety Protocol.

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal<http://www.basel.int>

37. Hazardous waste, as defined by the Basel Convention, includes toxic, ecotoxic and infectious substances. Since the last BWC review conference, the focus of the Basel Convention has shifted to strengthening implementation, including by: actively promoting the use of cleaner technologies and production methods; reducing further the movement of hazardous waste; preventing and monitoring illegal traffic; improving institutional and technical capabilities; further developing regional and sub-regional centres for training and technology transfer; and revising infectious waste guidelines.

38. The Secretariat of the Basel Convention has developed a number of technical guidelines which might be relevant to the BWC.¹⁵ These include: model national legislation; a methodological guide for undertaking national inventories; guidelines on physico-chemical treatment / biological treatment; guidelines on the environmentally sound management of biomedical and healthcare wastes; and a guidance paper on hazardous infectious substances. The Basel Convention recognises the classifications of infectious substances used in the UN Recommendations on the Transport of Dangerous Goods.

World Customs Organization (WCO)<http://www.wcoomd.org>

39. The WCO has carried out a strategic review of its security-related procedures in recent years. The June 2004 WCO Council Sessions established a High Level Strategic Group (HLSG) to develop standards to secure and facilitate global trade. The Framework of Standards to Secure and Facilitate Global Trade was adopted on 24 June 2005.¹⁶ The Framework is aimed at

¹³ <http://www.biodiv.org/biosafety/default.aspx>.

¹⁴ <http://www.biodiv.org/chm/default.aspx>.

¹⁵ <http://www.basel.int/meetings/sbc/workdoc/techdocs.html>.

¹⁶ <http://www.wcoomd.org/ie/en/press/wco%20-%20framework%20final%20en%2023-8.pdf>.

protecting world trade from the threats posed by international terrorism, organised crime and ever-increasing customs offences. It also provides a structured platform to facilitate the movement of legitimate goods being traded internationally. The Framework has four core principles: advance electronic information; risk management; outbound inspection; and business partnerships. If requested, the WCO will assist Member States in undertaking diagnostic studies aimed at capacity building. The outcomes of these studies are designed to determine implementation status and provide suggestions for possible sustainable solutions.

World Health Organization (WHO)

<http://www.who.int>

40. WHO activities related to disease surveillance, detection, prevention, mitigation and response were considered in some depth during the Meeting of Experts and Meeting of States Parties in 2004. The background information papers prepared for these meetings covered: the Global Outbreak Alert and Response Network (GOARN); the WHO Collaborating Centres; the Department for Epidemic and Pandemic Alert and Response (EPR); and the Department for Health Action in Crises (see BWC/MSP/2004/MX/INF.1 and BWC/MSP/2004/MX/INF.2).

Programme for Biorisk Reduction for Dangerous Pathogens

41. WHO has published several documents specifically related to national and international preparedness for managing the health risks posed by the deliberate use of biological agents. First published in 1970 as "Health Aspects of Biological and Chemical Weapons" this publication was extensively revised in 2004, with the new title "Public Health Response to Biological and Chemical Weapons: WHO Guidance"¹⁷. This policy guidance document for Health Ministries contains chapters on assessing the threat to public health, biological and chemical agents, public health preparedness and response, legal aspects, and international sources of assistance, as well as technical annexes.

42. That epidemics might be due to the possible deliberate use of biological agents was acknowledged by the World Health Assembly with resolution WHA55.16 of 18 May 2002¹⁸. WHA55.16 requests the Director-General to strengthen global preparedness for and response to such events, and to provide tools and support for Member States to strengthen their national health systems, especially health emergency preparedness and response. More recently, the World Health Assembly adopted the revised International Health Regulations (IHR) with resolution WHA58.3 of 23 May 2005¹⁹. The IHR (2005) requires WHO, among others, to provide assistance to States Parties, on request, in the event of a "Public Health Emergency of International Concern" (see below for more detail on other aspects of the IHR). This was followed by the adoption of resolution WHA58.29 of 25 May 2005²⁰ that called for WHO to provide support on laboratory biosafety and containment of microorganisms and toxins.

43. In response to these mandates, the Biorisk Reduction for Dangerous Pathogens (BDP) programme was created in 2006 within the Department of Epidemic and Pandemic Alert and Response (EPR). BDP combines two previously existing teams, the Accidental and Deliberate

¹⁷ <http://www.who.int/csr/delibepidemics/biochemguide/en/index.html>.

¹⁸ http://www.who.int/gb/ebwha/pdf_files/WHA55/ewha5516.pdf.

¹⁹ http://www.who.int/gb/ebwha/pdf_files/WHA58/WHA58_3-en.pdf.

²⁰ http://www.who.int/csr/labepidemiology/WHA58_29-en.pdf.

Epidemics with the Emerging and Dangerous Pathogens, to be able to deliver a more comprehensive public health oriented approach. BDP is based in the WHO headquarters in Geneva and includes several projects relevant to the possible deliberate use of biological agents. These projects include: Preparedness for Deliberate Epidemics, Responsible Life Science Research, Laboratory Biosafety, Laboratory Biosecurity, Global Laboratory Directory and Networks, Hospital Epidemic Preparedness. BDP also maintain public health expertise on Dangerous Pathogens such as anthrax, brucellosis, nipah, tularaemia, Viral Haemorrhagic Fevers, SARS, smallpox, etc.

44. A number of countries have requested WHO technical assistance to strengthen their national health preparedness plans for responding to the possible deliberate use of biological agents. To address these requests, BDP has developed and field-tested a capacity assessment guideline, which is expected to be published by early 2007. A training package to support the application of the guidelines is being developed. The guidelines, along with other relevant activities on national health preparedness, were reviewed with partners at a meeting held in Geneva in June 2005.²¹

45. The third edition of the "Laboratory Biosafety Manual" has been recently published and contains a section on Laboratory biosecurity. The Manual is available in several WHO official languages.²² The laboratory biosecurity concepts included in the Manual have now been articulated in the document "Laboratory Biosecurity Guidance", which is being made available through the WHO Web pages for further inputs and comments. WHO collaborates on biosafety with other UN agencies, including UNEP and FAO (through the Working Group on Biosafety); the UN Committee of Experts on the Transport of Dangerous Goods (see the ECOSOC section); the Basel Convention and the Convention on Biological Diversity (both serviced by UNEP). It also collaborates with a wide range of other international, regional and national organizations on this topic.

46. The document "Life science research: Opportunities and risks for public health: Mapping the Issues"²³ has been published in 2005 and work is continuing to engage dialogue with WHO Member States, the public health and life science communities, international and non-governmental organizations, private and security sectors on responsible life science research.

47. WHO also works on other subjects and diseases (e.g. pandemic influenza preparedness, food safety, chemical and radiological health emergencies, psychosocial consequences) which have relevance to the possible deliberate use of biological agents. In addition, as a result of WHO's mandate on epidemic diseases, if and when global alert and response capabilities are requested, they will come from the Global Outbreak Alert and Response Network (GOARN).²⁴

48. WHO exclusively focuses on the public health aspects of the possible deliberate use of biological agents to cause harm. In implementing activities, WHO acknowledges the need to interact with international frameworks which have not traditionally worked with WHO, such as law enforcement and security organizations (e.g. Interpol, the Organisation for the Prohibition of Chemical Weapons) and other security initiatives (e.g. the Biological Weapons Convention).

²¹ http://www.who.int/csr/resources/publications/deliberate/WHO_CDS_EPR_LYO_2005_26/en/index.html.

²² http://www.who.int/csr/resources/publications/biosafety/WHO_CDS_CSR_LYO_2004_11/en/.

²³ http://www.who.int/csr/resources/publications/deliberate/WHO_CDS_CSR_LYO_2005_20/en/index.html.

²⁴ <http://www.who.int/csr/outbreaknetwork/en/>.

Likewise, WHO encourages Ministries of Health to work with their national security counterparts (e.g. military, intelligence, law enforcement, civil protection) for managing the health risks caused by the possible deliberate use of biological agents. In pursuing its goals, WHO's strict preservation of political neutrality in addressing issues of national security concern is essential to maintain the trust of its 192 Member States.

Revised International Health Regulations

<http://www.who.int/csr/ihr/en/>

49. As noted above, the World Health Assembly adopted a resolution updating the International Health Regulations (IHR) in May 2005. The preamble to this resolution makes specific reference to the earlier resolution stating that the WHO "focuses on the possible public health consequences of an incident involving biological and chemical agents and radionuclear material, regardless of whether it is characterized as a natural occurrence, accidental release or a deliberate act."²⁵ The revised IHR will enter into force in June 1997.

50. The IHR were revised to ensure the effective prevention, protection against, control of and public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade. Article 5 of the new IHR requires states, with the assistance of the WHO, to develop, strengthen and maintain a capacity to detect, notify and report relevant disease events. Article 6 requires states to notify WHO not just of outbreaks of specific diseases, but of all events that may constitute "public health emergencies of international concern", with Annex 2 providing a "decision instrument" to be used to determine whether an event may constitute such an emergency. Article 13 has obligations to develop, strengthen and maintain a capacity to promptly and effectively respond to public health risks and public health emergencies of international concern. WHO is mandated to create guidelines to help states do this. It can also provide technical assistance and efficiency assessments upon request.

III. Other International Organizations

International Centre for Genetic Engineering and Biotechnology (ICGEB)

51. The ICGEB was launched in 1983 to aid the development of molecular biology and biotechnology in developing countries. Its activities include:

- (i) conducting research in the life sciences for the benefit of developing countries;
- (ii) research capacity-building in developing countries through training, funding and advisory services; and
- (iii) promoting biotechnology internationally.

The ICGEB has also done work on scientific ethics and responsibility and has been developing a series of principles to aid the development of codes of conduct for scientists. This work was considered during the Meeting of Experts and Meeting of States Parties in 2005 (see BWC/MSP/2005/MX/INF.1.)

²⁵ WHA55.16, http://www.who.int/gb/ebwha/pdf_files/WHA55/ewha5516.pdf.

International Civil Aviation Organization (ICAO)

52. ICAO services the Convention on Civil Aviation (Chicago Convention). Although most of the Chicago Convention deals with principles of practice, its Annex 18 addresses the Safe Transport of Dangerous Goods by Air. It states that the transport of dangerous goods by air must comply with the relevant regulations, in this case known as the Technical Instructions. It is designed not only to ensure safety and security but also to facilitate free trade. The Technical Instructions are valid for two-year periods; the current biennium expiring at the end of December 2006. They use the classification system for infectious substances of the UN Recommendations of the Transport of Dangerous Goods (see the section on ECOSOC). Copies of the Technical Instructions can be purchased from ICAO. The sections relating to infectious substances were revised in 2005²⁶. ICAO has also developed a guidance document for the transport of infectious substances by air²⁷. The attendant packaging instructions are currently under review and there is a public consultation underway which is due to be completed in March 2007.

International Committee of the Red Cross (ICRC)

53. The ICRC has conducted activities to raise awareness of the Convention, as well as increase the efficiency of its implementation through its project on "Biotechnology, Weapons and Humanity". It also has an emergency assistance capacity which could become involved in incidents involving the use of biological weapons.

Project on Biotechnology, Weapons and Humanity

<http://www.icrc.org/web/eng/siteeng0.nsf/htmlall/bwh?opendocument>

54. Between the two sessions of the Fifth Review Conference, the ICRC launched its initiative on Biotechnology, Weapons and Humanity. The project was motivated by the ICRC's mandate to protect and assist the victims of armed conflict and growing perceptions of the increasing potential for the misuse of biotechnological developments. The initiative began with a meeting of experts in Montreux, Switzerland in September 2002. This provided a forum to discuss concerns related to the fields of biotechnology, biological weapons, disarmament law, international humanitarian law, ethics and social responsibility. At the meeting the ICRC unveiled its Appeal on Biotechnology, Weapons and Humanity, addressed to governments, scientists, the biotechnology industry and civil society. It identified the growing danger that the advances in biotechnology might be misused, highlighted the threat which inaction poses to ancient and modern rules prohibiting poisoning and the deliberate spreading of disease, and called for a reaffirmation of these rules from its target audiences and for them to take a series of practical preventative measures.

55. Following on from its appeal the ICRC began to engage the scientific community through a series of regional meetings. The discussions held at these meetings, in combination with the expertise of the organization have led to the production of a number of resources. The ICRC produced a guide to the relevant responsibilities of scientists, which included a list of practical step which individuals can take²⁸. It also examined the link between legislation and ethics,

²⁶ <http://www.icao.int/icaonet/dcs/9284.html>.

²⁷ http://www.icao.int/icaonet/dcs/9284/guidance_doc_infectious_substances.pdf.

²⁸ <http://www.icrc.org/Web/Eng/siteeng0.nsf/iwpList515/7358E6A439390A02C1256E21004E1195>.

focusing on the development of best practice, and developed a number of principles which could be incorporated into codes of conduct or best practices²⁹. The ICRC has also contributed to efforts to strengthen the national implementation of the Convention, including by drafting a model law to implement the Convention³⁰.

Emergency Assistance

<http://www.icrc.org/Web/Eng/siteeng0.nsf/iwpList78/187938589127C98BC1256B66005DFEC3>

56. The core mission of the ICRC is to protect the lives and dignity of victims of war and internal violence and to provide them with assistance. The assistance programme of the ICRC was initiated "to protect the victims' lives and health, to ease their plight and to ensure that the consequences of conflict - disease, injury, hunger, displacement or exposure to the elements - do not jeopardize their future". The ICRC is also mandated to attempt to gain acceptance of responsibility for unlawful tactics during conflicts. This includes efforts to prevent or end violations of international humanitarian law.

57. There are two internal ICRC divisions involved with assistance: the Health and Relief Division for practical aspects; and the Logistics Division for logistical matters. The ICRC has no published materials indicating that it is prepared or able to provide assistance to those suffering as a result of the use of a biological weapon. The over-riding concern of the ICRC remains the safety and security of its staff. As a result, under the current arrangements the ICRC might not be in a position to help clarify or respond to disease events or intoxications which could have been deliberately instigated.

Interpol

<http://www.interpol.int/Public/BioTerrorism/>

58. The Interpol Bioterrorism Programme (IBP) was launched in 2004 to:

- (i) raise awareness of the threat;
- (ii) develop police training programmes;
- (iii) strengthen efforts to enforce existing legislation;
- (iv) promote the development of new legislation;
- (v) encourage interagency cooperation on bioterrorism.

59. It deals primarily with addressing, through national measures and international cooperation, the acquisition and use of biological weapons by non-state actors. The programme team is small but is supported by a steering committee and a group of expert consultants. As its first step the IBP hosted the Global Conference on Bioterrorism from 1-2 March 2005 at its headquarters in Lyon, France. This conference established a road map for future IBP activities, including:

- (i) establishing a training programme and resource centre at the disposal of worldwide law enforcement, with Interpol as the lead agency;

²⁹ http://www.icrc.org/Web/Eng/siteeng0.nsf/html/66NC2R?OpenDocument&style=Custo_Final.3&View=defaultBody2.

³⁰ <http://www.icrc.org/Web/eng/siteeng0.nsf/html/review-859-p573>.

- (ii) preparing training manuals and investigative guides for distribution and to be made available on Interpol's website;
- (iii) enhancing cooperation between public health officials, customs and law enforcement and additionally, between international organizations;
- (iv) providing regional training for countries in need of capacity building in the appropriate responses to a bioterrorist incident;
- (v) creating an incident response guide, with specific blocks of instruction in bioterrorism;
- (vi) making information on bioterrorism available on the restricted Interpol website with links to other resources.

60. In order to sensitise the necessary personnel to the issues involved, as well as for providing the training for capacity building, IBP is in the process of holding a series of regional workshops. Three have been held to date: South Africa in November 2005; Singapore in March 2006; and Chile in July 2006. Two more are planned in the Middle East and the Commonwealth of Independent States. The resource centre mentioned above also been developed and is available online³¹. The IBP has also been developing training materials and conducting tabletop exercises, and in July 2006 launched the Bioterrorism Incident Pre-planning and Response Guide³².

61. The IBP has also recently begun a "biocriminalization" project, which will focus on ensuring that states are, from a law-enforcement perspective, adequately prepared for, protected from and able to respond to the use or threat of use of biological weapons by non-state actors. It will strengthen the legal basis for assistance or cooperation in law enforcement to prevent the production or transport of biological weapons, and ensure that the activities prohibited by the Convention are included in national legal frameworks so that law enforcement agencies have the mandate to interdict attempts to acquire biological weapons before they are actually used.

Organization for Economic Cooperation and Development (OECD)

<http://www.oecd.org/>

62. The OECD's International Futures Programme was set up in 1990 to perform economic and social horizon scanning and to prepare material and act as a forum to aid decision makers in setting policy agendas and mapping strategies to deal with challenges over the longer term. As a result of increasing recognition that biotechnology can be used to produce harmful agents for destructive purposes as well as contributing to technological development and economic growth, in recent years the IFP has been increasingly concerned with biosecurity, dual-use science and scientific responsibility.

63. The meeting of OECD Scientific Ministers in Paris in January 2004 addressed the role of responsible stewardship in helping to achieve a balance between scientific freedom and security concerns. In response the IFP hosted the conference "Promoting Responsible Stewardship in the Biosciences: Avoiding Potential Abuse of Research and Resources" in September 2004 in Frascati, Italy. This meeting, according to the Chairman's summary, established a framework for the IFP to address this issue³³. Steps to be undertaken included:

³¹ <http://www.interpol.int/Public/BioTerrorism/links/>.

³² <http://www.interpol.int/Public/BioTerrorism/BioterrorismGuide.pdf>.

³³ <http://www.oecd.org/dataoecd/30/56/33855561.pdf>.

- (i) inventorying policy and legal approaches to biosecurity in all states;
- (ii) establishing a working party to perform gap analysis on the inventory;
- (iii) developing a clearing house on biosecurity and scientific codes of conduct to aid information exchange and awareness raising;
- (iv) using lessons learned from experiences with codes of conduct to develop and enhance national and international oversight mechanisms for codes of conduct; and
- (v) holding regular meetings of key players from all the various stakeholders to facilitate the above.

64. Action has been taken on these fronts and some of the results are available on a dedicated website³⁴. Information provided includes: the role of OECD in biosecurity and codes of conduct; key players and organizations; a glossary; background information on these topics; links to background documents and resources developed by a large number of organizations; as well as an archive of relevant codes of conduct.

Organization for the Prohibition of Chemical Weapons (OPCW)
<http://www.opcw.org>

65. The OPCW is the implementing organization for the Chemical Weapons Convention (CWC), which has a number of obvious parallels with the BWC, notably in the areas of universalisation, national implementation, assistance and protection, and promotion of peaceful uses of science and technology. Details of developments in the OPCW since the last review conference of the Convention can be found in the organization's annual reports³⁵.

66. At the end of the last review conference of the BWC, the CWC had 147 states parties. By the end of 2005 it had 175 (in contrast to 155 for the BWC). Eleven new states joined the CWC in 2003, nine in 2004 and eight in 2005. This increase is widely attributed to the action plan on universalisation adopted at the First Review Conference of the CWC in 2003. The CWC also adopted an action plan on national implementation, and has since hosted a wide range of workshops and training courses on various aspects of national implementation.

67. The OPCW has also undertaken numerous initiatives to enhance international cooperation over the last three years. These have included programs to: enhance capacity-building in national chemical industries and analytical laboratories; to support conferences and exchange of scientific and technical information; to enable scientists from developing countries to do internships in advanced laboratories; to support research projects in developing countries; and to donate used equipment. In the area of protection against and assistance after the use of chemical weapons, the OPCW held various workshops and training programs, and is in the process of developing a database designed to assist CWC States Parties in implementing Article X of the CWC (which deals with assistance and protection, and is equivalent to Article VII of the BWC). The OPCW is also looking to create a partnership with OCHA's Joint Environment Unit, which comprises the provision of practical assistance and co-ordination from UNEP and OCHA respectively.

³⁴ <http://www.biosecuritycodes.org>.

³⁵ http://www.opcw.org/en/annualreport_menu.html.

World Organization for Animal Health (OIE)

68. Many of the relevant activities of the OIE were reviewed during the Meeting of Experts and Meeting of States Parties in 2004 which focused on disease detection, surveillance, prevention, mitigation and response as well as assistance in the case of use of biological weapons and suspicious outbreaks of disease. (For more information see BWC/MSP/2004/MX/INF.1, BWC/MSP/2004/MX/INF.2 and BWC/MSP/2004/ INF.1.)

69. Since these background information documents were prepared, the OIE has continued to expand activities relevant to the Convention. Both the Terrestrial and Aquatic Codes have been updated with revised versions being released in 2006.

70. The OIE has also begun to focus more strongly on animal disease outbreaks resulting from a violation of the Convention. In April 2006 the OIE released a Scientific and Technical Review on the role and preparedness of veterinary and public health services in biological disasters of an animal origin³⁶. This included intentional spreading of disease. It contained articles on:

- (i) risk assessment and response management;
- (ii) designing effective epidemiological surveillance systems (in both developed and developing countries);
- (iii) public perception and risk communication;
- (iv) case studies of national disease events;
- (v) recent developments in disease modelling;
- (vi) the Biological Weapons Convention;
- (vii) historical surveys of biological attacks against animals and programmes developing such weapons;
- (viii) distinguishing between natural and unnatural disease outbreaks;
- (ix) microbial forensics;
- (x) the role of international organizations; and
- (xi) future scientific and technological developments.

IV. International Commercial and Scientific OrganizationsInterAcademy Panel on International Issues (IAP)

<http://www.interacademies.net/>

71. The IAP was launched in 1993 to act as a global network of the world's scientific academies to assist its members collaborate to better advise governments and civil society on the scientific aspects of global issues. IAP's statute sets out five specific objectives:

- (i) to provide advice to governments and international organizations on scientific aspects of issues of global importance;
- (ii) to promote cooperation, the exchange of information and experiences as well as developing common visions between scientific academies;

³⁶ http://www.oie.int/eng/publicat/rt/A_RT25_1.htm.

- (iii) to build capacity of the national scientific academies;
- (iv) to assist scientific communities in countries without scientific academies to establish them; and
- (v) to organise conferences, workshops and symposia as well as issuing statements or reports of topics of major international concern.

72. In 2004 the IAP established a working group on biosecurity as a result of a growing concern that there was the potential for biological science research could be used for malign purposes. The working group was tasked with a creating a statement of principles which could guide scientific academies and institutions in the development of codes of conduct. The statement was released on 1 December 2005³⁷ and the following week was presented to the BWC Meeting of States Parties which was considering the content, adoption and promulgation of codes of conduct for scientists. The IAP Statement on Biosecurity incorporates elements of awareness, safety and security, education and information, accountability, as well as oversight. It has been endorsed by 68 scientific academies.

International Air Transport Association (IATA)

http://www.iata.org/whatwedo/security_issues/index.htm

73. IATA's is a global trade organization comprising around 260 airlines. Its main security interest is in preventing attacks on aircraft. It is, however, also involved in developing best practices and model regulations on biosafety and biosecurity, as well as on the transport of dangerous goods. IATA acts as the Centre of Expertise for the transport of dangerous goods by air. It sets Dangerous Goods Regulations for its member airlines. It also offers standards for documentation, handling and training, and actively promotes the adoption and use of those standards by the air cargo industry. IATA has a dedicated Training and Development institute which offers courses and diplomas in a number of languages.

74. The Dangerous Goods Regulations are set by IATA's Dangerous Goods Board, which comprises 12 experts elected from member airlines. The regulations use the classification system of the UN Recommendations on the Transport of Dangerous goods (see the section on ECOSOC). Revised versions of the Regulations cover each biennium. The 48th edition of the Regulations will come into effect 1 January 2007.

International Council for Science (ICSU)

<http://www.icsu.org>

75. ICSU is a global umbrella organization for national and international scientific organizations. It was covered in the background information prepared for the 2005 Meeting of Experts and Meeting of States Parties (BWC/MSP/2005/MX/INF.2). It has worked with UNESCO/COMEST on developing principles for a scientific code of conduct. (For more information see the section on UNESCO.)

³⁷ <http://www.interacademies.net/?id=5405>.

Annex**Table of Organizations by Area of Activity**

| Area of Activity | Organizations |
|---|---|
| National criminal and anti-terrorism legislation, regulations and measures | 1540 Committee, Interpol, OPCW, ICRC |
| Safety and security of biological agents and toxins (in laboratories, etc) | 1540 Committee, WHO, FAO, OIE, OECD |
| Safe and secure transport of biological agents and toxins | ECOSOC, UNEP, WCO, IMO, ICAO, IATA |
| Ethics and codes of conduct | UNESCO, OECD, ICRC, ICGEB, IAP, ICSU |
| Disease surveillance and early warning | WHO, FAO, OIE |
| Assistance, protection and response in the case of use of biological weapons | WHO, FAO, OIE, OCHA, UNDP, UNEP, UN Secretary-General, ICRC |
| Promotion of peaceful uses of biological science and technology, including capacity-building and free trade | WHO, FAO, OIE, UNDP (IVI), ICGEB, IMO, ICAO, WCO |