

VERIFICATIONMATTERS

VERTIC RESEARCH REPORTS • NUMBER 6 • OCTOBER 2006

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biological weapons regime through
modular mechanisms**

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The **Verification Research, Training and Information Centre** (VERTIC) promotes effective and efficient verification as a means of ensuring confidence in the implementation of international agreements and intra-national agreements with international involvement. VERTIC aims to achieve its mission through research, training, dissemination of information, and interaction with the relevant political, diplomatic, technical, scientific and non-governmental communities. Founded in 1986, VERTIC is an independent, non-profit-making, non-governmental organization.

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Acronyms and abbreviations

AHG	Ad Hoc Group
BW	biological weapons
BWC	Biological Weapons Convention
CBD	Convention on Biological Diversity
CBMs	Confidence-Building Measures
CTBT	Comprehensive Nuclear Test Ban Treaty
CTBTO	Comprehensive Nuclear Test Ban Treaty Organization
CWC	Chemical Weapons Convention
ECOSOC	United Nations Economic and Social Council
EU	European Union
FAO	Food and Agriculture Organization
GICHD	Geneva International Centre for Humanitarian Demining
GPC	General Purpose Criterion
IAEA	International Atomic Energy Agency
Interpol	International Criminal Police Organization
LAN	Legal advisers' network
NPT	Nuclear Non-Proliferation Treaty
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health (formerly Office International des Epizooties)
OPBW	Organization for the Prohibition of Biological Weapons
OPCW	Organisation for the Prohibition of Chemical Weapons
PTS	Provisional Technical Secretariat

SAP	Scientific advisory panel
STAN	Scientific and technical advisers' network
UNCTC	United Nations Counter-Terrorism Committee
UNDDA	United Nations Department for Disarmament Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGAR	United Nations General Assembly Resolution
UNMOVIC	United Nations Monitoring, Verification and Inspection Commission
UNSCOM	United Nations Special Commission
UNSCR	United Nations Security Council Resolution
VEREX	Ad hoc group of governmental experts (Verification Experts)
VERTIC	Verification Research, Training and Information Centre
WCO	World Customs Organization
WHO	World Health Organization
WMDC	Weapons of Mass Destruction Commission (Blix Commission)

Executive Summary

In December 2004 the Weapons of Mass Destruction Commission (WMDC) published the study, *Enhancing BWC Implementation: A Modular Approach*, which was prepared by the Verification Research, Training and Information Centre (VERTIC). In the study VERTIC identifies a range of mechanisms that could improve the implementation of the 1972 Biological Weapons Convention (BWC).

This new VERTIC study updates the 2004 WMDC study and assesses the possible mandates for, and the responsibilities and requirements of, the modular mechanisms that have been identified to strengthen the biological weapons regime.

VERTIC proposes states parties adopt a modular approach to strengthening the convention. Seven modular mechanisms are proposed:

1. The establishment of a national authority and contact points in each state party for implementation of the convention;
2. The continuation of the BWC staff arrangement under the United Nations Department for Disarmament Affairs (UNDDA) and a modest expansion in its functions and responsibilities;
3. The establishment of convention implementation advisers to co-ordinate advice and assistance to states parties across all articles of the BWC;
4. The creation of a scientific and technical advisers' network (STAN) to consider, review and communicate to states parties practical ways of addressing any issues arising from scientific and technological developments that effect the convention and its implementation;
5. The creation of a legal advisers' network (LAN) to help all states parties to improve their national laws to implement the convention;
6. The creation of a confidence-building measures (CBMs) unit to increase the number of returns from states parties and to improve the quality of the information in the CBMs; and

7. The establishment of a group of experts to consider the issues related to investigations and inspections under the BWC.

VERTIC believes the weaknesses in the implementation of the convention are well known to all states parties. Addressing those weakness, and strengthening implementation of the BWC, is now of critical importance not just to the states parties but to all humanity. States parties are agreed that the use of microbial or other biological agents or toxins in any way and under any circumstances that is not consistent with prophylactic, protective or other peaceful purposes is banned under Article I. Moreover, the treaty states that the use of biological or toxin weapons would be repugnant to the conscience of mankind and that no effort should be spared to minimize this risk (preamble).

As scientific and technological developments expand across a wide range of fields, there is ever greater potential for states, terrorist groups or individuals to abuse peaceful scientific advances for nefarious purposes. These capabilities are spreading globally and at an ever increasing pace. The scope of the convention under its General Purpose Criterion (GPC) in Article I is sufficient to cover all these developments. The convention is not, however, a living organism with its own immune system, able to adapt to new risks and threats. It is a living treaty that requires its states parties to act on its behalf to ensure that prohibitions are maintained and the obligations undertaken are implemented.

VERTIC maintains that a legally binding additional agreement to the BWC is necessary to provide a comprehensive verification, compliance and implementation framework for the convention in the twenty-first century. Reaching such an agreement is not, however, politically feasible at this time. It is now time for everyone to embrace a different course of action in order to strengthen the convention.

States parties cannot afford the luxury of believing they have a few more years to address the threats posed to the convention. Nor can they maintain the pretence of believing that their failure to reach agreement in 2001 on the verification protocol was the fault of a single state party, and can, or will, be rectified when political conditions change. All states parties had a hand in the failure of the verification protocol. Every state party must now commit itself to a new strategy to strengthen the convention and put previous disagreements behind them.

Effective implementation of the convention is required to prevent the use of biological weapons, to prevent any state party from developing, producing or stockpiling such weapons, and to prevent the proliferation of these weapons to any actor. Implementation of the convention is a national responsibility and every state party should recommit itself to achieving effective implementation of all obligations under the convention in 2006.

The modular mechanisms designed by VERTIC are intended to assist implementation nationally, regionally and internationally. The approach suggested by VERTIC is pragmatic: the proposals in this report each stand alone on their own merits. Of the seven modular mechanisms proposed for adoption, any one of them would strengthen the convention. Each of them can stand alone and make an effective contribution to the efforts of states parties to achieve biological disarmament. Together, they offer synergistic benefits and interconnections that would be of even greater benefit. States parties are therefore encouraged to examine each modular mechanism on its own, but also to look for connections between the proposals. Small connections between them and the acceptance of synergies across the modular mechanisms will reap much larger rewards for implementation of the convention.

National authorities

The BWC is now almost alone in neither having recognized national entities or contact points in states parties, nor possessing any kind of agreed secretariat or implementation support to facilitate states parties in the implementation of the convention. The principal objective of any national authority would be to take responsibility for the implementation of the convention in the state party. Given the dual-use nature of the materials, equipment and technology required for the development of biological weapons, that would include liaison with industry and civil society, as much as with government departments and agencies. The suggested functions of a national authority include:

- promoting the activities required to ensure national compliance;
- ensuring transparency in national implementation;
- liaising with other national authorities and international organizations that work on BW-related issues;
- providing information to assist states parties to comply with all their BWC obligations; and
- providing contact details of individuals or ministries in states parties that can provide technical assistance or advice.

The rationale for a national authority is that it helps states parties to comply with their obligations under the BWC. That is why the 1993 Chemical Weapons Convention (CWC) requires the establishment of a national authority and why under the BWC protocol a similar requirement for a national authority was uncontroversial.

Establishing a network of national authorities would share the burden of any assistance programme and permit national authorities to refer to specific experts on particular subjects. A network of national contact points *de facto* already exists among certain states parties; whether it is through the European Union's BWC e-task force developing thinking among its 25 member states for the Sixth Review Conference, the contacts Australia and Indonesia have developed in the Asia-Pacific region in the course of their regional seminars in 2004 and 2005, or the contacts between like-minded states, desk officers responsible for the BWC are well known to each other. Developing a central list of these contact points via the website created by BWC staff is simply an exercise in greater transparency.

The national authorities' network will be able to share information, develop and promote good practice, act as a low-key form of consultation and co-operation between states parties, and liaise with other international organizations and bodies. As envisaged in the 2004 report, in the absence of an international verification organization, a national authorities' network will provide much needed mutual support and assistance to states parties. It also requires minimal effort from states parties to develop in 2006 and could be established without taking on additional financial burdens.

BWC staff

The states parties to the BWC rely on the activities of the three Depositary governments—Russia, the UK and the US—and the continued willingness and ability of the United Nations Secretary-General to carry out important activities that support the operation of the convention on their behalf. *Recognizing that certain terms for describing treaty support mechanisms may be misconstrued or have political overtones for some states parties in the BWC context, this report uses the term BWC staff to refer to the current and future (proposed) arrangements to provide institutional support to the convention.* This term is used because it reflects current practice: the BWC staff employed under the rubric of the UNDDA have been in place for at least three years. This arrangement should be continued and expanded by states parties in 2006. Building on the recommendations made by VERTIC in the 2004 WMDC study, the functions of the BWC staff will be administrative and facilitative. Administering and facilitating the decisions of the states parties, however, is insufficient on its own. National and international contact points are the prerequisite for more effective implementation of the convention.

Under its administrative role the following functions can be envisaged:

- providing support for all meetings in the BWC framework;
- liaising with and facilitating the work of the Depositaries;
- handling the collection, collation and distribution of CBM declarations;
- following up decisions by states parties made at meetings of states parties;
- maintaining the UN BWC website; and
- implementing other tasks assigned by states parties.

Under its facilitation role the BWC staff might undertake the following functions:

- acting as a contact point for all states parties on BWC issues;
- acting as a contact point for signatory states and other states on BWC issues and, if requested, providing information on accession and ratification issues and liaising with the Depositaries;
- liaising with other intergovernmental organizations and bodies such as the Food and Agriculture Organization (FAO), Interpol, the Office of the UN Secretary-General, the Organisation for the Prohibition of Chemical Weapons (OPCW), the UN 1540 Committee, the UN Counter-Terrorism Committee (UNCTC), the World Health Organization (WHO), the World Organization for Animal Health (OIE), and other appropriate bodies;
- maintaining a website and links to states with useful information;
- facilitating a virtual convention implementation advisers' network to promote the convention and its implementation, including efforts to achieve universality;
- representing the interests of states parties collectively in day-to-day relations with the UN and other bodies; and
- facilitating the provision of simple technical assistance to states that are having difficulty implementing treaty provisions, such as the CBMs, or matching states parties willing to provide assistance with those that require it.

The current arrangement with regard to BWC staff has proved an asset to states parties. The financial cost of existing BWC staff is known and has not been a heavy burden on states parties. Any extra BWC staff established to support the work between the sixth and seventh review conferences could evolve from existing arrangements. This has the advantage of simplicity and, not unimportantly, familiarity for states parties.

Convention implementation advisers

There is a need for a body to co-ordinate the implementation advice and assistance provided to all states parties, to assist them to implement their various treaty obligations, by a range of actors including other states parties and international and regional organizations. Such assistance goes beyond legal assistance on national implementation to include such areas as customs and law enforcement, the safety and security of pathogens, some forms of biodefence (compatible with nonproliferation objectives) and consequence management advice and assistance in the case of a BW attack. There are existing models for discrete teams acting on specific topics in both the OPCW and the International Atomic Energy Agency (IAEA) that offer advice to states parties through various offices and bodies as well as in agreed action plans and through the transmission of information to all states parties. The convention implementation advisers would:

- Co-ordinate offers and requests for assistance across all sections of the BWC, including specific advice on legal, science and technology issues and confidence-building measures through the LAN, STAN and the CBM unit. Possible sub-teams on the destruction of agents and toxins (for acceding states parties), redirection assistance for former weapons scientists, biosecurity issues, preparation and training for consequence management in the event of biological weapons (BW) use, emergency assistance co-ordination, legal issues relating to investigation of biological and toxin weapons use, and peaceful co-operation issues such as biosafety, Good Manufacturing Practice and Good Laboratory Practice could also be considered, as well as other areas states parties might identify;
- Link activities with other advisers in relevant organizations such as the 1992 Convention on Biological Diversity (CBD), the FAO, Interpol, the OIE, the OPCW, the UN 1540 Committee, the UNCTC, the WHO, and others;
- Address any concerns about terrorism and potential use of biological or toxin weapons by non-state actors through a specific advisory team on issues related to BW terrorism;
- Address all issues of relevance across the convention to promote compliance with all obligations at the operational level; and
- Use the existing BWC staff website to develop specific sections or pages on implementation advice on all aspects of the BWC.

A network of implementation advisers will take time to develop. The network will therefore have to start from small beginnings, develop based on actual requests for information or advice from states parties, and expand once it has proved its worth. The network would be based on advisers from states parties—or those that may be appointed by states parties for specific periods of time or tasks, thus it would be a small, non-permanent and ‘virtual’ body.

A scientific and technical advisers’ network

The rapid developments in the life sciences are well documented. The need to ensure that the scope of the convention is sufficient to cover all scientific developments is also well known. It is one thing for states parties to determine once every five years that the convention is sufficiently comprehensive to cover all developments in the biological and other sciences, and quite another to communicate to states parties how various risks posed by peaceful scientific development should—and must—be addressed in national regulations, administrative undertakings, or new legislation as required.

The scope of the envisaged science and technology advisers’ network would not be limited to Article I of the BWC. The STAN could play an important role in communicating scientific and technical issues across a range of articles, including Articles VI and VII with respect to detection technologies and the work of other organizations. Its functions would include:

- Reviewing scientific and technical developments of relevance to the convention and all its articles;
- Acting as a forum to bring together scientific and technical advisers from states parties;
- Collating information of relevance to states parties on scientific and technical developments and making it available to all states parties through a science and technology database or other information clearing-house mechanism;
- Reviewing reports or agreements by other organizations on scientific and technological issues and bringing them to the attention of all states parties;
- Facilitating the delivery of advice, information and assistance on how to address scientific developments that may pose a risk to the convention; and
- Bringing together scientific and technical advisers from states parties at international, regional, or other levels to give their views on how scientific and technological developments may pose a risk to or benefit the convention and its states parties.

Membership of the STAN would not be fixed. Nor would the STAN exist solely as a tangible body that convenes a certain number of times between review conferences. As a network, rather than an organization or panel, the STAN offers much greater flexibility. States parties could nominate their scientific and technical advisers, or offer a contact point for such advisers, to the BWC staff in Geneva. Through the existing website of the BWC run from Geneva the STAN could act as a repository for information on scientific issues of relevance to the convention. If a member of the BWC staff was a scientist, that individual could facilitate the work of the STAN. Its members could convene separately on the margins of meetings of states parties or sub-sets of members might meet at the regional level as appropriate.

A legal advisers' network

The obligations under Article IV of the convention are clear: each state party must 'take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere'. In the 2004 WMDC study, VERTIC notes that its previous research on national implementation revealed that many states parties lacked knowledge of their Article IV obligations as well as the necessary resources and expertise to comply with the article.

Offers of assistance were made in 2003 and subsequent years to help achieve the objective that all states parties should have effective national implementation measures in place. States parties, however, will have collectively to move beyond exhortation and limited offers of assistance. This will require states parties to develop a comprehensive database of legislation, regulations, and other measures in each state party in order to identify the baseline of national implementation across the BWC. To achieve this basic element a decision will be required to mandate all states parties to lodge copies of all their relevant national implementation measures in a central repository. VERTIC recommends that states parties establish a legal advisers' network (LAN) to:

- Promote the obligation to adopt appropriate implementation measures for the convention;
- Establish a database of national implementation measures for the BWC among its states parties;
- Review all reported and submitted national implementation measures passed to the LAN and its central contact point;

- Liaise with legal officers in other international organizations working on issues related and relevant to the implementation of the BWC;
- Devise, based on experience of states parties and other available data such as the report to the UN 1540 Committee, minimum requirements for national implementation measures;
- Establish a database of legal advisers in states parties;
- Develop and agree a programme of work to provide assistance to any state party that so requests it, to be completed either bilaterally, regionally, through regional or other organizations, or through collective efforts by states parties;
- Organize meetings, workshops and training programmes to permit each state party to undertake as much of this work as possible at the national level, in accordance with their own constitutional processes; and
- Develop templates of national implementation for consideration by different types of states parties depending on their requirements.

The LAN would not be a panel or fixed organization. Its membership would be determined by states parties. Members of the LAN may organize on a regional basis, with tacit agreement to work with states parties in their own region as a priority. A website would act as a central information point for states parties. Members of the LAN could co-ordinate and discuss their activities at meetings of states parties or on the margins of other meetings of BWC states parties. A meeting of LAN members may be necessary, but the objective should not be to agree on a single model of implementation. Minimum criteria will have to be agreed but, in the light of the politico-legal issues, all states parties will have to do this either at the Review Conference or in a subsequent meeting.

A confidence-building measures unit

In an attempt to alleviate the lack of returns under the CBMs Canada prepared and circulated a guide to help states to complete the CBM forms. Thus far, there has been only a modest increase in the rate of returns. This national effort indicates that inertia in states parties may be a bigger problem than the administrative difficulties of completing the returns.

The functions of the CBM unit would vary in a number of categories: administrative, facilitative, review and assessment. The priority of the CBM unit would be to improve the administration of the existing system.

The role of the CBM unit would encompass: ensuring each state party has the CBM forms; confirming receipt of the submitted information from each state party; issuing reminders to states parties that have not submitted a return by the due date; issuing reminders at agreed periods thereafter, for example, every month until December of the calendar year; collating the returns, and distributing them to states parties, including circulation electronically to returning states parties.

Its facilitating role might entail practical assistance with preparing the CBM before submission in order to ensure the correct information is collected for inclusion on the forms. This work would take the training contained in the Canadian guide one step further by facilitating assistance between states parties. To support this the experts in the CBM unit could maintain a website providing information on the CBMs as well as on the assistance available to support submissions. A further facilitating role would be translation of the CBMs into the six languages of the UN, or at least into one common language for all, before distribution to states parties.

A periodic review function carried out by experts could apprise states parties at each review conference of whether further decisions are necessary. The experts would make recommendations to states parties for adoption. This approach follows past practice—an expert group devised the modalities of the information exchange in 1987 and a small group of experts worked at the Third Review Conference to bring back ideas to the president for consideration by the states parties during the review conference itself.

Achieving any agreement on analysis or assessment functions for the CBM unit will be difficult, but assessment could be developed in a number of ways. States parties could consider the following as part of an assessment process:

- States parties would agree to send their returns electronically or allow BWC staff to convert them into electronic documents, and for them to be entered into a database accessible to states parties. The database of information would only be available to those states parties that had returned a CBM for the previous calendar year;
- States parties would nominate experts to serve on the CBM unit for specified periods of time. All states parties would receive the existing compilation of CBMs in hard copy form. All submitting states parties would receive copies of the information in hard copy and electronic form;
- States parties that have submitted CBMs would be asked to provide a basic analysis of the CBMs, including identified basic and general information;

- The Depositaries, the UNDDA, or the states parties would be requested to contact non-returning states parties and request a return in accordance with their undertakings to the BWC.

A CBM unit established by states parties may also draw on other public sources of information. The principal aim should be to engage states parties in dialogue about discrepancies between previous submissions and current data, anomalies between other publicly available data and that reported under the CBM, or any lack of clarity in the submission. Taken together these measures would enhance the transparency of the CBM process.

A BW investigation and inspection mechanism

The article on investigations is widely viewed as the principal compliance mechanism in the BWC. At the Meeting of Experts in 2004 many states parties voiced their support for updating the United Nations Secretary-General's mechanism for investigating alleged use of biological or toxin weapons. More recently, the adoption of the United Nations Counter-Terrorism strategy noted that member states 'also encourage the Secretary-General to update the roster of experts and laboratories, as well as the technical guidelines and procedures, available to him for the timely and efficient investigation of alleged use'. States parties to the BWC should strongly support the efforts of the Secretary-General in this task because they have no recourse to their own mechanism and the Security Council has never developed usable procedures for action under Article VI of the convention. Updating and strengthening the Secretary-General's mechanism is one method of providing a more effective biological weapons-related investigation procedure in the future. While updating the Secretary-General's mechanism offers some relief to the lack of mechanisms under the BWC, the authority of the Secretary-General does not extend to issues related to producing, developing, or stockpiling biological or toxin weapons. It is in this area where states parties should consider acting and developing guidelines for inspections in the future.

The objective of states parties should be to reach agreement on a detailed, but flexible, consultation procedure for issues related to compliance with the obligations under Articles I and III of the convention. This could be done through the establishment of an expert group or as an identified topic of a future meeting of experts or meeting of states parties. Any meeting should consider:

- Expanding the agreements and additional understandings on consultative meetings;
- Establishing guidelines for the initiation of consultation procedures;

- Identifying the type of information required to support any stated concern about activities relating to the convention;
- Outlining in greater detail the procedures for convening a Formal Consultative Meeting;
- Agreeing timelines for the conduct of consultations;
- Developing provision for the use of agreed experts and/or the good offices of international organizations to facilitate consultation procedures;
- Drafting the modalities for voluntary on-site assessments of facilities, sites, or laboratories;
- The modalities for making the information available to other states parties or the United Nations Security Council as appropriate;
- The lessons learned from the United Nations Special Commission (UNSCOM), the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC), and other appropriate mechanisms; and
- Training and national capacity building for identified experts, including liaison with the FAO, Interpol, the OIE, the OPCW, the WHO and rostered experts under the Secretary-General's mechanism.

The Review Conference and beyond

States parties will need to continue meeting and working in a variety of forums between 2007 and 2011. The review conference in 2006 should be viewed as a 'pit stop' on the continued evolution of the convention. Where further work on effective implementation of the convention is required, states parties should not shy away from acknowledging that reality. Recognizing that work needs to be done is not a sign of the failure of the BWC: it is a recognition of the reality of treaty implementation. In 2006 states parties should:

- Agree to establish national authorities to work with the BWC staff and facilitate contact between states parties;
- Establish a budget for the employment of around four or five staff members under the existing BWC staff model;
- Allocate to the BWC staff additional responsibilities to improve the administration of the convention and its meetings, and to facilitate more effective implementation of the decisions of the states parties;
- Promote the existing BWC website with a view to developing the site as a portal for information related to all aspects of the BWC;

- Agree a mandate for the creation of a number of subsidiary networks made up of experts appointed by states parties—for convention implementation advisers, a scientific and technical advisers' network, a legal advisers' network, a CBM unit and an expert group to consider the consultation and co-operation mechanisms under Article V of the convention;
- Develop and agree a further programme of work to enhance implementation of the convention covering the following issues: scientific and technological developments; implementation measures and liaison with the UN 1540 Committee; national implementation measures, including the provision of assistance to states parties, and the development of agreed minimum criteria for national implementing measures; review the CBMs and the creation of the CBM unit; a commitment to support the investigation mechanism of the Secretary-General, and an express commitment to provide the Secretary-General with the contact details of experts required as soon as possible; detailed consideration of the support to be offered to any state party attacked with biological or toxin weapons, or threatened with an attack by such weapons; closer co-operation with the OPCW where appropriate to maximize the achievement of the objective of a total prohibition on the use, development, production and stockpiling of chemical and biological weapons; an express commitment for all states parties to the BWC to ratify or accede to the CWC no later than December 2007; a concerted effort for the withdrawal of all remaining reservations to the 1925 Geneva Protocol; consideration of the ways in which states parties can facilitate the work of the FAO, the OIE and the WHO, particularly in the establishment of an effective and complete global disease surveillance network; development of means to enhance states parties' abilities to meet the standards for laboratory safety and security established by the WHO as well as other relevant guidelines, Good Manufacturing Practice and Good Laboratory Practice; the establishment of an action plan on universality and its implementation between 2007 and 2011, with a view to having no less than 185 states parties to the BWC by 2010; and agree to hold a further review conference no later than 2011.

These proposals may appear ambitious, but they all have their origins either in existing proposals before states parties or similar mechanisms that have been agreed by states parties previously or in comparable agreements.

In 2006 states parties are in a position to put their differences behind them and develop a new strategy to enhance the implementation of the convention.

Introduction

*A simple, international ban on biological weapons alone is not enough.*¹

In December 2004 the Weapons of Mass Destruction Commission (WMDC) published the study, *Enhancing BWC Implementation: A Modular Approach*, which was prepared by the Verification Research, Training and Information Centre (VERTIC).² In the study VERTIC identifies a range of mechanisms that could improve the implementation of the 1972 Biological Weapons Convention (BWC). The mechanisms could also fulfil certain verification and implementation activities for states parties. These mechanisms were deliberately designed to be something short of a fully fledged international organization. Building on experience and on the modalities of other international agreements, including the mechanisms put in place to perform tasks for other treaty regimes, VERTIC proposed a modular approach to developing institutional support for the BWC. The modular approach was not designed to substitute for the verification mechanisms that states parties to the BWC attempted to develop between 1995 and 2001; that is, a legally binding verification protocol. Instead, the measures were intended to rectify some of the weaknesses identified in the implementation of the convention.

The underlying theme of the 2004 WMDC study is that states parties to the BWC do not face a simplistic choice between two opposing strategies: either pursuing a legally binding verification agreement to the convention, or doing nothing until the political climate changed sufficiently to permit new negotiations on such an agreement. Instead, states parties should seek to strengthen implementation of the convention wherever and whenever they can. At the heart of the modular mechanisms approach is a return to the evolutionary, incremental method of strengthening the BWC.

This study updates the 2004 WMDC study and examines its ideas in greater detail. This new study assesses the possible mandates for, and the responsibilities and requirements of, the modular mechanisms that have been identified to strengthen the biological weapons regime.

The biological weapons regime

The biological weapons regime continues to evolve. Since 1972 it has consisted of the 1925 Geneva Protocol—prohibiting the use of biological, chemical and toxin weapons—and the Biological Weapons Convention. Since 1993 the Chemical Weapons Convention (CWC) has also formed one aspect of the biological weapons regime, because of the overlap in relation to toxins.³ This overlap means that the regime consists of a panoply of agreements, mechanisms and measures taken by states, and to an extent other actors, to counter the threat posed by biological weapons (BW). It is beyond the scope of this report to cover *all* the measures that contribute to the biological weapons regime; the principal focus here is the BWC. The importance of the 1925 Geneva Protocol cannot be overstated. It prohibits the use in war of chemical and bacteriological methods of warfare. The 1972 BWC does not explicitly prohibit the use of biological or toxin weapons, but does prohibit their development, production, stockpiling, acquisition, or transfer by its states parties. Furthermore, the states parties to the BWC are unanimous in their agreement ‘that the use by the States Parties, in any way and under any circumstances, of microbial or other biological agents or toxins, that is not consistent with prophylactic, protective or other peaceful purposes, is effectively a violation of Article I of the convention’.⁴ There are also other supporting elements, including:

- the United Nations Secretary-General’s investigation mechanism for alleged or suspected use of chemical, biological and toxin weapons;
- national, regional and international activities—as well as activities by like-minded states, groups or organizations—such as the requirement for export control under United Nations Security Council Resolution (UNSCR) 1540 (2004);
- the co-ordination of export controls under the Australia Group;
- the Proliferation Security Initiative; and
- the activities under the G8 Global Partnership.

The threat posed by biological weapons is not static.⁵ States need to be aware of the expanding width of the threat spectrum. This is an important consideration in terms of scientific and technological developments, and the measures implemented by states parties to address the potential threat. As a guide, the conclusion of the 2006 report of the US National Academies, *Globalization, Biosecurity, and the Future of the Life Sciences* indicates that:

The growing concern regarding novel types of threat agents does not diminish the importance of naturally occurring threat agents—for example, the ‘classic’ category A select agents—or ‘conventionally’ genetically engineered pathogenic organisms. However, it does mandate the need to adopt a broader perspective in assessing the threat, focusing not on a narrow list of pathogens, but on a much wider spectrum that includes biologically active chemical agents. The potential threat spectrum is thus exceptionally broad and continuously evolving—in some ways predictably, in other ways unexpectedly.⁶

The globalization of the biotechnology and life science research and industrial communities presents the opportunity to significantly increase the well-being of humankind, but also has the potential to place biological weapons at the disposal of many more actors: states, terrorist groups and individuals. No state, and certainly no state party to the BWC, is now immune from the threat posed by biological weapons because of simple geography or the lack of technological capabilities in other states. Again, as the 2006 report of the US National Academies underlines, ‘[t]o a considerable extent, new advances in the life sciences and related technologies are being generated not just domestically [in the US], but also internationally’.⁷ The potential threat posed by biological weapons is global in scale, and countering and minimizing this threat requires action beyond national borders.

The agents, toxins, materials, equipment and technology are dual use in their nature; that is, they can be used for peaceful purposes, such as the development, production and delivery of vaccines, or for hostile purposes, such as the development, production and dissemination of *Bacillus anthracis* (the bacteria causing anthrax). This fact means accepting that the practical problems posed by biological disarmament—that is, how states effectively implement and enforce their legal obligations not to use, develop, produce, stockpile, acquire, possess, or transfer biological or toxin weapons and to prohibit and prevent their own nationals from conducting any of these activities—cannot be resolved through the simple existence of a convention or treaty. The legal measures taken to address the threat of biological weapons have to be implemented. That requires the constant attention of states parties, the international community, intergovernmental organizations, civil society and non-governmental organizations. The proposals contained in this report are intended to support and enhance the continuous implementation efforts required in the day-to-day management of the legal commitment to biological disarmament.

Between 20 November and 8 December 2006 states parties to the BWC will convene for the Sixth Review Conference of the convention. Rather than attempt to define what constitutes success or failure in 2006, this report is concerned with the future health of the convention.

The historical context

Since the negotiation of the CWC, and its entry into force in 1997, the BWC has been routinely derided as a weak agreement. Comparative assessments of the strengths or weaknesses of a treaty regime are relative. In the early 1970s the BWC was a beacon of disarmament; and after its entry into force in 1975 the convention was routinely held up as a model of the kind of disarmament that could be achieved through multilateral negotiation. Times change, and the vicissitudes of the BWC treaty regime, to use the terminology of Nicholas Sims, are well documented.⁸ By the mid-1990s the situation in the BWC was aptly described by the British Minister present at the Fourth Review Conference in 1996.⁹

A general perception held that the biological weapons problem was solved; that it did not present a real risk or threat; and that it did not merit a place on serious arms control agendas. . . . But over the last decade, we have seen these comfortable assumptions overturned.

Efforts to strengthen the BWC did not turn out as many had hoped. In 1994 states parties established an Ad Hoc Group (AHG) to draft proposals to strengthen the convention, which were to be included, as appropriate, in a legally binding instrument—a BWC protocol.¹⁰ Negotiations under the AHG began in 1995. By the time of the twenty-fourth session of the AHG in July and August 2001 the Chairman of the negotiations, Ambassador Tibor Tóth (Hungary), had developed a compromise text—often referred to as the ‘composite text’—to address the many different views on issues related to verification and compliance.¹¹ States parties were heavily divided on how and where to make compromises with each other in order to reach agreement on the final version of the BWC protocol. When the US withdrew its support for the protocol in July 2001 the negotiations came abruptly to a halt.

From the perspective of 2006 the principal issue is the divisions that the collapse of the negotiations created among states parties about how to continue their efforts to strengthen the biological weapons regime. While some states parties favoured restarting negotiations on a legally binding instrument, others were willing to embrace less ambitious mechanisms which sought to reach agreement where it was possible to do so.

The pragmatists were successful.¹² The path taken by the states parties was to continue discussions in the BWC context on specific problems related to implementation. This was the outcome of the resumed session of the Fifth Review Conference in 2002 when states parties agreed the following:¹³

(a) To hold three annual meetings of the States Parties of one week duration each year commencing in 2003 until the Sixth Review Conference, to be held not later than the end of 2006, to discuss, and promote common understanding and effective action on:

- i. the adoption of necessary national measures to implement the prohibitions set forth in the Convention, including the enactment of penal legislation;*
- ii. national mechanisms to establish and maintain the security and oversight of pathogenic microorganisms and toxins;*
- iii. enhancing international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease;*
- iv. strengthening and broadening national and international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals, and plants;*
- v. the content, promulgation, and adoption of codes of conduct for scientists.*

(b) All meetings, both of experts and of States Parties, will reach any conclusions or results by consensus.

(c) Each meeting of the States Parties will be prepared by a two week meeting of experts. The topics for consideration at each annual meeting of States Parties will be as follows: items i and ii will be considered in 2003; items iii and iv in 2004; item v in 2005. The first meeting will be chaired by a representative of the Eastern Group, the second by a representative of the Group of Non-Aligned and Other States, and the third by a representative of the Western Group.

(d) The meetings of experts will prepare factual reports describing their work.

(e) The Sixth Review Conference will consider the work of these meetings and decide on any further action.

There is no disguising the fact that the new programme of work was a minimal outcome. It was not embraced enthusiastically by all the states parties. This is demonstrated both by the statements made after the adoption of the decision to proceed with the programme of work, and by subsequent statements made by states parties at each of the meetings of states parties in 2003, 2004 and 2005.¹⁴ Despite low expectations the intersessional programme of work has proved successful in a number of ways. Together with developments in other areas

of the regime, such as UNSCR 1540, adopted on 28 April 2004, and the new World Health Organization (WHO) International Health Regulations—which are due to be implemented in 2007 but can be applied by states parties immediately—the low-level and focused discussions of the states parties to the BWC mean that the convention is in better health, at least politically, in 2006 than it was in 2001 or 2002.

As the Sixth Review Conference approaches, the direction of policy among some states parties is already known. The 25 member states of the European Union (EU) have already indicated their support for ‘specific, practical and feasible proposals for the effective enhancement of the implementation’ of the convention through the adoption of the Common Position of March 2006.¹⁵ Included in the EU proposals for the review conference are a commitment to work for a further intersessional programme of work between 2007 and 2011, a further review conference in 2007, and the promotion of: (a) universal accession to the convention by all states that remain outside the BWC; (b) full compliance with the convention; (c) strengthening national implementation measures; (d) increased exchange of information under the confidence-building measures (CBMs); (e) compliance with obligations under UNSCR 1540 (2004); (f) the role of the G8 Global Partnership programmes to support disarmament; and (g) consideration of the outcome of the work programme completed between 2003 and 2005. Australia, Canada and New Zealand have indicated their support for ‘pragmatic steps that can achieve practical results’ including national implementation, CBMs, implementation support measures, and annual meetings of the states parties.¹⁶ Furthermore, a group of Latin American states—Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Peru and Uruguay—have indicated their willingness to support an incremental process to strengthen the convention.¹⁷ Altogether, before the convening of the review conference, almost 40 states parties have given their strong support to a further pragmatic and incremental programme of activities and mechanisms that would enhance implementation of the BWC.

The context for the Sixth Review Conference

The BWC is a living document. Like all treaties it requires attention from its states parties. First and foremost, its states parties must implement their obligations. For example, Article IV of the convention requires states parties to ‘take any necessary measures to prohibit and prevent’ the activities proscribed by the convention. States parties are required to do this ‘in accordance with their constitutional processes’ which, due to the complexity of effecting the prohibitions, necessitates that action is required beyond the simple act of ratification or

accession. The fact that the convention is a living document was recognized by states parties by the insertion of a requirement to review the operation of the convention under its Article XII 'with a view to assuring that the purposes of the preamble and the provisions of the convention. . . . are being realized. Such review shall take into account any new scientific and technological developments relevant to the convention'.¹⁸ In addition to their legal obligations, states parties have agreed a number of additional understandings with regard to the implementation of the BWC. These are contained in successive final declarations and decisions from each of the five review conferences to date.¹⁹ The CBMs, for example, are part of an agreed exchange of information between states parties designed 'to prevent or reduce the occurrence of ambiguities, doubts, and suspicions'. While the additional understandings are not legally binding, they are politically binding on all states parties. The importance of these understandings is that they enable the implementation of the convention to evolve through consensus agreement in order to meet emerging challenges. In 1996, for example, states parties noted that individuals and sub-national groups should be prevented from acquiring agents and toxins for other than peaceful purposes. States parties do not take such decisions lightly and reaching agreement in 2006 will not be a simple task. The task before states parties, however, is neither impossible, nor as difficult as the task they faced in 2001 and 2002.

Any review conference is governed by its rules of procedure. The power of states parties is not without limit in the review conference setting. At a review conference, however, states parties to the BWC can agree on or decide to undertake a wide range of activities, providing there is consensus agreement among them. Taking previous review conferences as a guide, states parties may decide:

- that particular activities are prohibited by the convention even though such activities are not explicitly mentioned in the text of the BWC, such as their decision in 1996 that use of biological or toxin weapons is a violation of the convention;
- that in carrying out their obligations certain precautions need to be taken, such as the protection of populations and the environment during any destruction of biological weapon stockpiles, as they did in 1980;
- that information on implementation of the convention, such as notification of the destruction of any stockpiles of biological weapons, could enhance confidence in the BWC, as they did in 1996; or that information should be exchanged between states parties, such as the CBMs agreed in 1986 and 1991;

- that the scope of the convention is sufficiently comprehensive to remain applicable to new potential threats which were unknown at the time of the convention's entry into force, as they have done under Article I at each review conference up to 1996;
- that the implementation of certain articles is of particular importance, such as the decisions in 1986, 1991 and 1996 concerning legislative, administrative, and other measures to implement Article IV;
- to establish specific mechanisms to facilitate the operation of the convention, such as the agreement on consultative meetings, as they did in 1980, 1986, 1991 and 1996;
- that assistance will be required from external bodies, such as the UNDDA in the case of CBMs, in order to implement effectively the decisions of states parties;
- that deadlines and agreed timelines can be established by the states parties for the fulfilment of specific tasks such as, for example, the annual submission of information by 15 April each year;
- that mechanisms established in other forums, such the Secretary-General's investigation mechanism for chemical and biological weapons use, are relevant to the convention, as they did in 1986, 1991 and 1996;
- that other intergovernmental organizations may be of assistance to states parties in particular circumstances, such as the recognition in 1991 and 1996 of the role of the WHO in the provision of assistance to states parties in the event of the use of biological or toxin weapons;
- that other international agreements, such as the 1925 Geneva Protocol and the 1993 Chemical Weapons Convention, are relevant to the BWC and its implementation;
- that carrying out specific measures would contribute to the fulfilment of obligations under the convention, which has occurred with respect to Article X at each review conference to date;
- that additional conferences and meetings are required to ensure the objectives and purpose of the convention are being met, as in the decision to hold review conferences since 1986;
- that states parties have responsibilities not explicitly written into the convention, such as persuading non-states parties to ratify or accede to the BWC without delay;
- that action by particular groups of states parties to implement the convention, such as in a regional forum, is to be welcomed, as in the decisions made in 1991 and 1996 with regard to accessions to the BWC;
- that the states parties may ask certain groups to agree the modalities of actual decisions, such as the decision in 1987 to establish the group of experts meeting on CBMs;

- that particular issues may be carried out through the establishment of different types of groups, meetings and conferences, such the study on the scientific and technical aspects of verification under the ad hoc group of governmental experts (Verification Experts, VEREX) between 1992 and 1993, the Special Conference in 1994, the Ad Hoc Group (AHG), and the Meetings of States Parties between 2003 and 2005; and
- that future meetings of states parties can be asked to carry out specific activities, such as considering the effectiveness of the CBMs in 1991, or when the Sixth Review Conference was mandated to consider the work of the BWC meetings between 2003 and 2005 and decide on any further action.

Overall, states parties have been pragmatic and flexible in their approach to implementation of the BWC and, more importantly, their collective effort to ensure that the convention's objectives and purpose are still being met 15, 20 and 25 years after its entry into force. As has been noted elsewhere, 'despite the divisions and a residue of bitterness, a large majority of states parties have been prepared to put their political differences aside and simply get on with making the best of the limited options available for collective efforts to strengthen the convention'.²⁰ This approach should continue to guide states parties in 2006 and beyond.

VERTIC maintains that a legally binding additional agreement to the BWC is necessary in order to provide a comprehensive verification, compliance and implementation framework for the convention in the twenty-first century. Reaching such an agreement is not, however, politically feasible at this time. States parties remain divided on the issue of verification and the existence of the AHG, as well as the usefulness of any verification mechanisms for the convention. Political realities dictate that verification remains a longer term goal which states parties should continue to work towards.

At the Review Conference in 2006, states parties must maintain their pursuit of a pragmatic approach to achieving the best possible outcome available to them. While the choices states parties make in that regard will determine the immediate success or failure of the Sixth Review Conference, it is equally important to note that the review conference itself is not just a once-in-five-years three-week long window of opportunity that can be seized or missed.

A review conference is now part of a broader process under the BWC and the convention itself is part of a wider regime against biological weapons. In the years between 1986 and 2006—the period between the Second and the Sixth review conferences—there have been only three years when states parties did not meet formally in one forum or another: 1988, 1989 and 1990. Groups of experts have met in 1987, 1992, 1993, 2003, 2004

and 2005; the AHG met 24 times between 1995 and 2001; a Special Conference was convened in 1994; meetings of states parties have been held in 2003, 2004 and 2005; and review conferences were held in 1986, 1991, 1996, 2001/2002 and 2006. If review conferences were a once-in-five-years opportunity for states parties to consider the implementation of the convention in the first ten years of the life of the BWC, since that time they have been supplemented by other meetings. This should continue: not least because a three-week review conference will be unable to address adequately all the issues that will require detailed consideration and action by the states parties. A pragmatic approach in 2006 would aim to reach agreement on strengthening the convention where it is possible to do so, and recognize that the 2006 Review Conference is only one meeting among many.

The approach of VERTIC is therefore pragmatic. The proposals made in the remainder of this report each stand alone on their own merits: together, they offer synergistic benefits and interconnections that would be of even greater benefit. States parties are therefore encouraged to look for connections between the proposals, where small additions will reap much larger rewards for implementation of the convention.

The report suggests ideas for modular mechanisms and recommends either their adoption by states parties in 2006 or further exploratory work on the ideas they contain between the Sixth and Seventh Review Conferences. The mechanisms are:

- a network of national authorities and contact points;
- a support staff function provided through the BWC staff;
- convention implementation advisers;
- a scientific and technical advisers' network (STAN);
- a legal advisers' network (LAN);
- a CBM unit; and
- a BW investigation and inspection mechanism.

National authorities and secretariat staff

The BWC relies on its states parties to implement the convention without any formal, legally binding, oversight by other states parties or any international organization that is entirely devoted to the convention. Implementation of the BWC has, however, changed during the course of its life—both nationally and internationally.

The Depositaries of the convention—Russia, the United Kingdom and the United States—are charged with administrative oversight of the BWC. They receive instruments of ratification and accession from other states, inform all signatory states and states parties of any new ratifications and accessions, and receive other notices such as requests to convene a review conference, a special conference, or a consultative meeting. The role of the Depositaries is largely administrative. The three Depositary governments have no power to take or implement decisions on behalf of the other states parties.

The United Nations Security Council is given the role of investigating any complaint lodged with it by a state party in relation to another state party acting in breach of its obligations. The Security Council can decide to carry out an investigation into the complaint, states parties undertake to co-operate with any investigation initiated by the Security Council, and the Security Council is required to inform states parties of the results of any investigation.

Since the BWC entered into force, decisions taken by states parties at review conferences and other meetings have placed additional commitments on other entities—most notably, the United Nations Secretary-General. The Secretary-General has been asked to allocate the staff resources and other requirements necessary to assist the effective implementation of the decisions taken by states parties at review conferences. Thus, it is the UNDDA, and not the Depositary governments, that receives, collates and distributes the CBMs each year. Review conferences are supported by the staff provided by the UNDDA and successive review conferences have also asked the Secretary-General to collate information annually on their behalf—such as information on the implementation of Article X of the convention—or to put issues that the states parties to the BWC have

identified as being of particular interest to them on the agenda of other meetings and bodies, such as examination of the institutional mechanisms to facilitate peaceful co-operation under Article X.

In a different context, UN member states under General Assembly resolutions, and under UNSCR 620 (1988), have encouraged the Secretary-General to carry out investigations into allegations of possible or suspected use of chemical, biological, or toxin weapons that entail a violation of the 1925 Geneva Protocol. The Security Council has not devised a separate mechanism for any investigation of complaints received under Article VI of the BWC. States parties therefore rely on the Secretary-General to investigate any future allegation of the use of biological weapons brought to its attention by a state party.

In addition to the support requested from the UNDDA, over the past decade states parties have also paid the UNDDA to supply additional staff to support the administration of the various meetings and to facilitate the implementation of previous decisions. This practice began under the auspices of support to the Chairman of the AHG with funding provided year-on-year when the budget allocation for meetings of the AHG was determined. The arrangement continued through to the Fifth Review Conference in 2002, at which states parties provided the meeting of experts and meetings of states parties between 2003 and 2005 with funding for three years of conference support and secretarial support for the Chair of each meeting and the meetings themselves. In December 2005, when the provisional allocation of the budget for the Sixth Review Conference was agreed by the states parties, the use of specific UNDDA-appointed staff to support the BWC was continued through to the end of 2006.

While the practice of using specifically appointed staff may have emerged in the mid-1990s, in 1986 Australia, the Netherlands and New Zealand proposed during the debate on CBMs that states parties should seek the view of the Secretary-General on the most appropriate measures to facilitate the data exchange. One method identified was ‘a small secretariat under United Nations auspices’.²¹ The idea of a small secretariat for the BWC inside the UN was also supported by Yugoslavia and by the UK in 1991 at the Third Review Conference. The latter proposal—while unsuccessful in 1991—most closely resembles the current arrangements, whereby the costs of the additional resources used by the states parties are allocated in accordance with the cost-sharing arrangements agreed at previous review conferences and subsequent meetings.²²

The ‘small secretariat’ may not have been acceptable in 1986 or 1991, but the idea and the terminology have since gained traction among the states parties. A ‘secretariat’ can, of course, mean many things. Generically, the idea was to facilitate the meetings of states parties and the information exchange. The term ‘secretariat’

almost certainly had no political overtones in 1986, but was instead convenient and readily identifiable shorthand for the conference and meeting support offered by the UN and by its staff in the DDA. Of late—with the emergence of the Technical Secretariat in the Organisation for the Prohibition of Chemical Weapons (OPCW) and its equivalent, the Provisional Technical Secretariat (PTS), at the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO), as well as the long-standing International Atomic Energy Agency (IAEA) Secretariat—the term ‘Secretariat’ (with or without a capital ‘S’) has become synonymous with treaty implementation organizations. The term therefore does now have political connotations.

VERTIC has no direct interest in the terminology used by states parties to define or describe the administrative and other functions carried out by individuals working together under the instructions of BWC states parties. It is the responsibilities and tasks given to these individuals—and the manner in which they carry out and fulfil these tasks—which is most important to the convention and its health.

Recognizing, however, that the term secretariat may be misconstrued or have political overtones for some states parties in the BWC context, in this report its use is generic, inasmuch as it refers to the administrative office of a treaty or other agreement. Below, the term BWC staff is used to refer to the current and future (proposed) arrangements to provide institutional support to the convention. This term is used because it reflects current practice—the states parties pay, in accordance with their cost-sharing arrangements, for the UNDDA to employ a small number of staff to support and facilitate their meetings.

The current state of play

The states parties to the BWC have, as a result of the abovementioned decisions and established practice, put themselves in a position where they rely on the activities of three governments—Russia, the UK and the US—and the continued willingness and ability of the United Nations Secretary-General to undertake important activities that support the operation of the convention on their behalf. States parties had little direct control over how those decisions were carried out or implemented on their behalf until the mid-1990s when, through the various Chairs of meetings of the states parties, they were able to direct the small group of BWC staff to carry out certain functions.

This arrangement is highly unusual in the early years of the twenty-first century. Under the 1968 Nuclear Non-Proliferation Treaty (NPT), the IAEA has a recognized role with regard to the safeguards contained in

Article III of the NPT, and this supplements the activities of the Depositary governments and the UN in the administration of the treaty. Both the CWC and the 1996 Comprehensive Nuclear Test Ban Treaty (CTBT) established an Organization—the OPCW and the CTBTO, respectively—‘to achieve the object and purpose of this treaty, to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and co-operation among States Parties’ in the case of the CTBTO and ‘to achieve the object and purpose of this convention, to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and co-operation among States Parties’ in the case of the OPCW.

The BWC is now almost alone in neither having recognized national entities or contact points among states parties nor possessing some kind of agreed secretariat and implementation support to assist states parties with the implementation of the convention.

In terms of treaty diplomacy, the contact between states parties is largely foreign ministry to foreign ministry, as befits the diplomatic nature of the periodic conferences or meetings of states parties. Regulating, administering and overseeing the materials, technology, equipment and knowledge required to develop, produce, or use biological weapons involves significant dual-use issues. The management of the biological weapons regime therefore goes beyond the foreign ministry of each state party. A rudimentary assessment of the list of participants from states parties at any meeting of the BWC indicates clearly that a delegation is made up of representatives from foreign ministries, ministries of defence, staff from trade and industry sectors of governments, scientific and technical experts, and public health experts, among others. This multi-departmental approach illustrates the breadth of issues that require consideration in undertaking and managing the implementation of the BWC.

Looking back over three decades, the most striking aspect is the extent to which the states parties have permitted the burden to fall exclusively on their own shoulders in an ad hoc manner. While the UN Secretary-General was asked to oversee the receipt, collation and distribution of the CBMs submissions, the UNDDA has no formal role in the implementation of the convention. Administrative support for meetings has grown organically, with currently two to three staff members employed by the UNDDA to support the meetings of the convention’s states parties. BWC staff are not a permanent fixture of the convention and the BWC will revert back to relying solely on the three Depositary governments, the Secretary-General, and the Security Council, together with any support individual states parties choose to provide, at the end of 2006 unless

states parties decide, and financial arrangements are agreed, to continue the employment of staff to administer the convention.

Furthermore, administering and facilitating the decisions of the states parties is insufficient on its own. Support staff must have contacts to work with in the states parties, and, because offers of technical and implementation assistance have increased in the past five years, states parties should have the ability to conduct direct discussions with the individuals or ministries responsible for implementing the convention in each state party. National *and* international contact points are a prerequisite for more effective implementation of the convention.

It is the lack of permanent, semi-permanent, or temporary support together with the inability of states parties to easily co-ordinate with each other that forms the core of the ‘institutional deficit’²³ of the convention.

The institutional deficit of the BWC and its wider regime has been recognized for over two decades. As others have noted, since 1972 the lack of attention to the implementation and administration of the convention and the broader regime has become ever more problematic.²⁴ Legal undertakings are not self-implementing and the expectation that the BWC would somehow miraculously implement itself has proved to be a serious mistake by the states parties. According to the late Charles Flowerree—a senior US diplomat with great experience of disarmament diplomacy and treaty implementation—mechanisms are required to enable states parties to cope not only with extraordinary events, but also with issues related to compliance, changing international conditions, the necessity of interpreting treaty language over time or when ambiguities arise, dealing with new technological developments, and developing implementing procedures.²⁵ All these factors were in evidence in the first ten years of the BWC’s existence. It is day-to-day implementation that requires at least some oversight: the recognition that some officials will have to live with the convention and its obligations full-time, all of the time.²⁶

Biological disarmament is not a completed task that was ticked off by the global community in 1975 on entry into force of the BWC. Preventing the development, production, stockpiling, acquisition, transfer or use of biological weapons by anyone—state, terrorist or individual—under any circumstances is a task that requires continuing attention and management. Under the BWC there is no equivalent to the IAEA, OPCW or the CTBTO, nor their constituent organs. Although later developments under the BWC protocol negotiations indicated the creation of a fully fledged international organization, the Organization for the Prohibition of Biological and Toxin Weapons (OPBW), to rectify this deficit, since the demise of the Protocol the debate has turned away from such an organization to different types of bodies.

The tendency when thinking of such institutions is to consider the ‘organization’ itself. An equally important part of the equation, however, is that such institutions require national representatives to attend the meetings and oversee the activities of the agency or organization. A secretariat does not operate in a vacuum or conduct its activities without governmental oversight. In practice this means that not only do states parties know who to contact about IAEA safeguards or chemical weapons, they also know who their national counterparts are in other states parties. The OPCW, for example, provides a direct electronic link to the national authorities and their contact points on their public website, providing not only states parties, but also non-states parties and others with at least the knowledge of who is officially responsible for the national implementation of the CWC in each state party.

A dual administrative arrangement of national authorities or contact points and some kind of secretariat support is critical to the future management of the BWC. Unless states parties decide in 2006 to reduce their reporting and information-sharing obligations—or determine that the problems of implementation are not sufficiently serious to warrant further meetings and, more importantly, further specific work at the national, regional and international levels to enhance implementation of the convention—it is extremely hard to envisage how implementation of the convention can be enhanced without some kind of remedy to the institutional deficit.

A network of national authorities and contact points

As is indicated in VERTIC’s 2004 study for the WMDC, the BWC does not require its states parties to establish a national authority responsible for implementation of the treaty inside the territory of each state party. This is in contrast to more recent agreements, such the CWC. In 2004, VERTIC proposed that states parties could strengthen BWC implementation by establishing a network of actual or quasi-BWC national authorities or their equivalent. Such a network could promote best practice and share implementation support and assistance.²⁷ In addition to the CWC, consideration was given to the 1992 Convention on Biological Diversity (CBD).²⁸ Under that agreement, states nominate a national focal point for treaty liaison and co-ordination. The objective of the focal point is to collect and disseminate information on national implementation of obligations, which is linked by a virtual network through the treaty’s official website.²⁹

Under Article VII of the CWC, states parties are required ‘to designate or establish a National Authority to serve as a national focal point for effective liaison with the Organization and other states parties’.³⁰ Similar

ideas were explored during the negotiations on the BWC protocol. Under the final draft of the text under negotiation, states parties to the BWC envisaged the creation of similar national authorities to act as a focal point for implementation of the protocol and the convention.³¹

It is already clear that implementation of the BWC by a state party entails activity by more than one government department. Previous compliance reports submitted to review conferences by a number of states parties, and the submitted papers to the 2003 meeting of experts, draw attention to the multi-departmental nature of implementation across nearly all states parties.

Under the BWC a national authority could undertake a variety of functions. Its role is likely to develop as time passes to include national implementation, bilateral and multilateral liaison with other states parties, co-ordination with appropriate intergovernmental organizations such as the Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE) and the World Health Organization (WHO), Interpol in relation to efforts to counter bioterrorism, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Organization for Economic Co-operation and Development (OECD) on codes of conduct, and non-governmental and sub-national organizations. As such, a national authority is likely to embrace the full range of activities required under the obligations of the convention: national implementation; non-proliferation; consultation and co-operation; preparation for investigations of non-compliance and for the provision of assistance and support to other states parties should biological or toxin weapons be used; liaison with other treaty secretariats where appropriate—not least the Depositary of the Geneva Protocol (France) and the OPCW; peaceful co-operation; and assistance with the administration of the convention, including efforts to increase accessions to the convention in future years.

Suggested functions

The principal objective of any national authority would be to take responsibility for the implementation of the convention in the state party. Given the dual-use nature of the materials, equipment and technology required for the development of biological weapons, liaison with industry and civil society would be as important as liaison with government departments and agencies. While a national authority is desirable, it is insufficient on its own. In the 25 EU member states, the control of dual-use goods and materials is carried out under EU law. The different national agencies have to co-ordinate with each other in order to ensure effective implementation. National authorities will have both internal and external responsibilities. Clearly, some states parties, such as

the US, will require a larger national authority than others, such as Jamaica. In addition, given that not all states parties have extensive experience of managing dual-use facilities or issues, the more experienced national authorities will need to provide guidance and assistance to less experienced states. Hence, VERTIC's 2004 WMDC study contains a proposal for a network of national authorities. The suggested functions include to:

- promote the range of activities needed to ensure national compliance: states parties have already identified the basic requirements of national implementation in successive final declarations of the review conferences and, more recently, in the meeting of experts and the meeting of states parties in 2003;
- ensure transparency in national implementation: the dual-use nature of the materials, equipment, science and facilities that are relevant to the BWC indicates that a national authority is highly unlikely to have to deal only with government facilities or scientific activity in government laboratories. Civil society, including industry, universities, pharmaceutical companies and non-governmental groups interested in a state party's compliance with its obligations, should receive information from the state party on its own responsibilities for complying with national legislation or regulations in that state. For example, a company trading in scientific equipment cannot comply with the non-proliferation requirements of the convention—or UNSCR 1540 (2004)—unless the state party identifies items that are subject to an export licence. Transparency and accountability in a state party are therefore as important as transparency between states parties to enhancing the implementation of the BWC. Compliance is a national responsibility, and verification of compliance begins in the state party itself;
- liaise with other national authorities and international organizations working on BW-related issues, for example, as in the case of the EU discussed above, national authorities are likely to have frequent contact with their counterparts in their regions. This is particularly true for states parties that are heavily involved in international trade. Even in other states, however, some kind of liaison will be necessary. Land-locked states, for example, may have to import or export materials requiring an export licence from another state party via sea-trading routes. Trans-shipment issues therefore need to be addressed. For international organizations liaison with the UN and the UN 1540 Committee, created by UNSCR 1540 (2004), will be necessary, and the FAO, the OIE and the WHO, for example, all have roles to play in the field of international health;
- provide information to assist states parties to comply with all BWC obligations. In addition to the national transparency aspects noted above, most national authorities will be able to provide information to other

states parties that will promote compliance with the convention. States parties that are able to develop and implement relatively simple legislation and regulations because of the smaller size of their activities relevant to the convention will be able to assist other states in a similar situation. States with complex and wide-ranging legislation and regulations, such the EU member states, will be able to assist all other states parties;

- provide contact details of states parties' national authorities that may provide technical assistance or advice: building on these kinds of outreach activities a network of national authorities could share the burden of any assistance programme, or permit national authorities to refer to specific experts on particular subjects. For example, New Zealand has extensive experience and expertise in safety and quarantine issues that other states parties may require advice on from time to time.
- host meetings during BWC or BWC-related meetings to conduct training, provide advice or assistance and to discuss technical issues (such as developments in transfer controls and law enforcement): like the OPCW, a network of national authorities under the BWC would also permit individual, or regional, training programmes or workshops to be developed. One example might be noting that compliance with the implementation requirements of the BWC fulfils the requirements of UNSCR 1540 (2004). Another would be the information-sharing and identification of good practice that liaison between national authorities will produce.

In 2006 it should be a priority of states parties to the convention to require the notification of a national contact point to other states parties and the BWC secretariat. A national authority—and the principal named contact inside that body—would be preferable but, in the absence of such a body, the national contact point may have to serve as an interim measure. This kind of minimal interim measure should not, however, be viewed as a voluntary undertaking. In each state party, someone, somewhere, is responsible for the BWC at the national and international levels. Identifying the appropriate individual, individuals, or ministry, and sharing that information with other states parties would be a major step forward in terms of implementation and transparency. This would permit the desk-officer to desk-officer contact between states parties that is essential to more effective implementation of the convention internationally. Not all states parties may recognize the need for a national authority and, without a legal requirement to establish such an entity under the BWC, some states parties may not be able to obtain the necessary bureaucratic or financial support required to establish such an authority. However, as is the case in Nigeria, the national authority required under the CWC could act as the base or 'home' for the BWC national authority. This would permit the exploitation of synergies both in the

area of toxins and as scientific developments begin to merge chemistry and biology as they are traditionally understood. Furthermore, many of the national implementation requirements for compliance with the BWC are identifiably similar—albeit technically different—to those required under the CWC.

The main functions of a national authority, however, can be based on existing practice. In that regard, states parties should designate an individual in the lead government department responsible for the implementation of the convention to serve as a focal point for liaison with states parties and the BWC staff. Information on the national contact point should be forwarded to the BWC staff, who should transmit to all states parties a consolidated list of these contact points. Perhaps the best, and most efficient, example of how to do this is the website of the OPCW. BWC states parties should follow that example. Under the 1992 Convention on Biological Diversity, the national contact and focal points are publicly available as named individuals. This is also the case under the 2001 UN Programme of Action on Small Arms and Light Weapons. Since many states parties already have websites for different government departments that provide some information on issues related to the BWC, this would not have to be a radical leap forward. In part, it simply attempts to pull together information that is already in the public domain or known to other states parties.

The national contact point can then fulfil its second core function—the provision of information relating to implementation of the convention at the national level. This activity increases the level of transparency concerning national implementation. While the core role of the national contact point will be to promulgate the requirements for national implementation, he or she will also undertake outreach and awareness raising activity with other bodies, for example, scientific organizations developing a code of conduct.

The third function will be to liaise with others. Here, the envisaged functions relating to provision of information and advice, and liaison with other organizations can be conducted at desk-officer to desk-officer level. Much of this activity should already be happening in each state party if actual implementation activities are being carried out, although caution is required in assuming that this is the case. The figures provided by the OPCW with regard to effective national implementation of the CWC by states parties offers a stark warning against any assumption that states parties actually have in place complete and effective coverage of all activities in their own territories.

The other identified function, that of hosting meetings, would come under the heading of implementation support activities to assist other states parties. One option would be for national authority training or seminars to take place on the margins of a meeting of states parties.

Practicalities

States parties will have to agree that a national authority, or at least a national contact point, should be established in the future. As with the CBMs submissions, a timetable could be developed for information on the national authority to be provided to the BWC staff. Following such a decision, action will be required by each state party to fulfil this politically binding obligation. In reality, establishing a national contact point is not an additional commitment for any state party. An individual in each government should already have as one of their responsibilities leading national implementation of the convention in that state party. Informing other states parties and the BWC staff the identity of that national contact point is, therefore, a shift to transparency and more effective implementation.

For the system of national authorities and/or contact points to work efficiently and effectively a website similar to that of the OPCW will be required. Since the BWC staff in Geneva have already created such a site (at www.unog.ch/bwc) there are no significant additional costs associated with this. Maintaining BWC staff support will be a prerequisite, but the main function of such staff will not be the website, which is an offshoot of its other activities for states parties.

Once the national authorities or network of contacts is established, it can develop organically. Other activities, such as implementation support, CBM-liaison and consultation and co-operation will develop in conjunction with the other institutional arrangements considered in further detail below. The financial cost of this network is therefore minimal and covered by existing expenditure, states parties' financial support for the convention and existing financial support for BWC staff.

Advantages

The rationale for a national authority is that it helps states parties to comply with their obligations under the BWC. That is why the CWC requires the establishment of a national authority and why under the BWC protocol a similar requirement for a national authority was uncontroversial. A network of national contact points *de facto* already exists among certain states parties; whether it is through the EU's BWC e-task force developing thinking among its 25 member states for the Sixth Review Conference, the contacts Australia and Indonesia have developed in the Asia-Pacific region in the course of their regional seminars in 2004 and 2005, or the contacts between like-minded states, desk officers responsible for the BWC are well known to each other. Developing a central list of the contact points via the website created by BWC staff is an exercise in greater transparency.

Over time, particularly as a result of further meetings of states parties in between review conferences, the national contact network will be able to share information, develop and promote good practice, act as a low-key form of consultation and co-operation among states parties, and liaise with other international organizations and bodies. As is envisaged in VERTIC's 2004 WMDC study, in the absence of an international verification organization, a national authorities network will provide much needed mutual support and assistance to states parties. It also requires minimal effort from states parties to develop in 2006 and could be done without additional financial burdens.

Disadvantages

Facilitating the national authorities contact network requires the continued existence of the BWC staff in order to maintain the UN BWC website. Should states parties decide they do not require the assistance of BWC staff beyond 2006, the national authorities contact network would require a new repository to be developed. This could be done by an individual state party—or states parties could request the Depositaries to co-ordinate this function—but it would be reliant on the goodwill of a supportive state or states. It would also risk overburdening the Depositaries or the state party that accepted such a responsibility. The requirements for access to documentation, the translation of documents, and co-ordination between the three Depositaries, as well as the loss of a non-political BWC staff supporting the convention, would all increase the costs—financial and otherwise—of such a network.

A second disadvantage is that the national authorities' contact network would only be a facilitating mechanism for co-ordinating support and information among states parties. In addition to the BWC staff, experience of the maintenance of the lists of experts and the laboratories maintained by the UN Secretary-General to support the investigation mechanism, and of the maintenance of the rosters of experts held by the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) (inspectors) and the OPCW (legal experts) indicate that such networks require nurturing and regular attention. Other support mechanisms will be required to take forward more practical and tangible assistance aspects, such as those on national implementation, CBMs submissions, and training and development programmes. Without these mechanisms, there is a danger that the national authority contact network will be minimal or, worse, seen as able to offer all kinds of assistance. It is not only national resources dedicated to implementation of the convention that are important here—sufficient resources will also be required in order to put in place the mechanisms for national contact points to

take advantage of in the future. States parties would also have to commit to updating the information submitted to the BWC staff on a regular basis because, in many states, officials in different government posts and with different responsibilities are rotated regularly.

A support staff function under BWC staff³²

Supporting the BWC was a task states parties allocated to the UN Secretary-General. He was expected to allocate resources to the functioning of the convention at its five-yearly review conferences and, after 1986, absorb the costs imposed by receiving, collating and distributing the CBMs to the states parties. States parties and the Depositaries were more than happy to pass additional commitments on to the UN whenever possible. To a great extent, the states parties to the BWC shifted the administrative burden for the convention from themselves to the United Nations, which became an unacknowledged, underfunded, and, by and large, unappreciated quasi-secretariat for the BWC.

By 1991 this arrangement was regarded as ‘thoroughly inadequate’³³ not only by external observers but also by some states parties. Following the lead of Australia, the Netherlands and New Zealand, the UK and Yugoslavia made formal written proposals for the establishment of a dedicated BWC secretariat. While Yugoslavia’s proposal recommended that the UN Secretary-General ‘establish a unit within the framework of the United Nations Secretariat that would follow up the fulfilment of the obligations of states parties undertaken on the basis of confidence-building measures, recommended within the context of this Conference and the meetings to follow’,³⁴ it made no reference to any new financial obligations on states parties. In contrast, the British proposal allocated the additional costs of a two-person secretariat to the states parties:³⁵

The Conference recognizes that the revised procedures which the States parties have agreed to implement will make even greater demands on the time of the United Nations Department for Disarmament Affairs. The Conference therefore requests the United Nations Secretary-General to allocate additional staff resources up to the equivalent of one Professional and one General Services to support the States parties in their exchanges of information related to the Convention and to allocate the costs of such resources directly to the States parties in accordance with the cost-sharing arrangements agreed for the financing of the Third Review Conference.

Although neither proposal gained consensus support,³⁶ a shift in attitude was evident in VEREX³⁷ and became explicit at the BWC Special Conference in 1994. There were different ideas about how to prevent the

creation of a large bureaucracy, and how to exploit economies of scale or synergies with existing international and intergovernmental organizations in order to keep costs to a minimum.³⁸ By 1996, at the Fourth Review Conference, South Africa and all the EU member states were explicitly supporting the creation of a new organization.³⁹ This, of course, was in the context of the BWC protocol negotiations, where the US also favoured ‘a professional organization to implement the Protocol . . . talented, small, and cost-effective’.⁴⁰

The principal view of states parties was that any organization established to support the convention should be able to fulfil the tasks allocated to it, while remaining as small—in size if not reach—as possible. Size, of course, is not a determining factor of actual capabilities or effectiveness, but it is fair to point out that no state party to the BWC envisaged, or desired, the creation of a large bureaucracy to oversee implementation of the convention. During the negotiations in the Ad Hoc Group, the states parties were paying for additional support from the UN in the manner envisaged by the UK in 1991; that is, from 1997 the costs of the staff were allocated to the states parties. This arrangement continues today and will continue at least until December 2006.

The creation of the information repository in 2003, its background papers for each meeting of experts, its liaison and contact with states parties over the past three years, its assistance to each of the Chairs of the meetings of experts and meetings of states parties, and the creation of the recent UN BWC website have all been beneficial for states parties. The arrangement has worked exceptionally well for very little cost. The current arrangements have not been perfect. For example, one of the lessons learned was that the Chair for each year was unable to receive any support until March of that year because BWC staff, under current arrangements, are only available for ten months of each year.

On balance, states parties are much more familiar with not only the idea, but also the practice of treaty and convention secretariats. The long-standing IAEA Secretariat, the Technical Secretariat of the OPCW, the Provisional Technical Secretariat of the CTBTO, as well as the support provided by UN staff to other treaties, conventions and negotiating bodies such as the Conference on Disarmament are all familiar to states. They know how such secretariats function, the financial costs, and how effective such bodies can be. The kind of secretariat support provided by BWC staff is different. It is focused on the meetings of states parties and the facilitation and administration of such meetings. Should the states parties decide not to continue with BWC staff in 2006 it is difficult to envisage how the work of states parties will not suffer a significant decline in quality. Conversely, the high quality and effective work of the existing UN staff in the DDA in Geneva over

the past few years suggests that additional tasks, including those envisaged above, could be carried out without a significant increase in costs. It is equally important to note, however, that if the current system of BWC staffing is maintained the staff would not be able to absorb any additional responsibilities easily, given that they are only in place for ten months of the year.

The idea of a secretariat has therefore gained considerable ground since 1991. For example, following the publication by the British government of its Green Paper *Strengthening the Biological and Toxin Weapons Convention: Countering the Threat from Biological Weapons*,⁴¹ the House of Commons Foreign Affairs Committee recommended that the UK ‘consider carefully the merits of proposing the establishment of a secretariat, with a mandate similar to that of the Organisation for the Prohibition of Chemical Weapons, to enhance international monitoring of States Parties’ compliance with the BTWC and to assist States Parties in assuring compliance’.⁴² More recently, the WMDC recommended that ‘[s]tates parties to the . . . [the BWC] . . . should establish a standing secretariat to handle organizational and administrative matters related to the treaty, such as Review Conferences and expert meetings’.⁴³

While it is understandable that some reference is made to the OPCW, the scale and type of activities under the CWC are very different to those under the BWC. The support provided to the BWC by the kind of secretariat envisaged by the WMDC or by existing BWC staff will be very different to that provided to the OPCW, the IAEA—with respect to nuclear safeguards—or the CTBTO. Most notably, it will be much smaller in size than its OPCW, IAEA, or CTBTO counterparts, cost significantly less money, undertake fewer tasks, and be co-ordinated through the UN in Geneva. In its current form BWC staff serve two main functions: they support the administration of the convention in line with the agreed objectives of the states parties; and they act as a facilitator for information and provider of general advice to states parties. Over time, when a verification and compliance agreement is reached by states parties, a secretariat, perhaps similar to that envisaged in the OPBW under the BWC protocol, will emerge—thus removing responsibilities from the UN. Until such time, states parties will, unless they decide to end their co-operation with each other through meetings of states parties or to reduce the responsibilities of the UN conference and administrative staff who service such meetings, retain something similar to the existing arrangements.

Suggested functions

Building on the conclusions in VERTIC’s 2004 WMDC study, the functions of the BWC staff would be administrative and facilitative. Under its administrative role the following functions can be envisaged:

- providing support for all meetings under the BWC framework. This includes administration, liaison and facilitation of BWC meetings determined by the states parties such as review conferences, meetings of states parties, meetings of experts and any other meetings such as a Special Conference or a Formal Consultative Meeting;
- servicing and supporting conferences or any meetings through liaison with the UNDDA and other UN bodies over the completion of such work;
- liaising with and facilitating the work of the Depositaries. This would include assistance with ratification and accession documentation and informing other states parties of any ratifications or accessions to the convention; preparation of the documentation for administration of the convention, such as cost estimates for meetings or the official list of states parties and signatory states;
- handling the collection, collation and distribution of CBMs declarations;
- following up decisions made by states parties at review conferences and meetings of states parties;
- maintaining the UN BWC website; and
- any other tasks assigned by states parties at a review conference or meeting of states parties.

Under its facilitation role the BWC staff might:

- act as a contact point for all states parties on BWC issues. This would reduce the burden on the Depositaries, permit greater co-ordination between them, and make it easier for states parties to communicate with each other for ordinary purposes or if an extraordinary event occurs. In effect it would permit BWC staff to serve as the first point of call for requests for information, advice, or assistance for BWC states parties—acting as a clearing-house for treaty-related information;
- act as a contact point for signatory states and other states on BWC issues and, if requested, provide information on accession and ratification issues and liaison with the Depositaries;
- liaise with other intergovernmental organizations and bodies such as the FAO, Interpol, the OIE, the OPCW, the WHO, the UN 1540 Committee, the UN Counter-Terrorism Committee (UNCTC), the Office of the Secretary-General, and other bodies as appropriate;⁴⁴
- maintain a website with links to states and useful information on, for example, Article X co-operation issues, scientific publications of relevance to the convention (currently under CBM Form C) or meetings and conferences that might be of interest to states parties;

- facilitate a virtual convention implementation advisers' network to promote the convention and its implementation, including efforts to achieve universality. Implementation support activities conducted by states parties on a bilateral, regional, or other basis will require some form of co-ordination, and information on such activities may be of interest to all states parties. Building on the national authorities and point of contact ideas for the convention, BWC staff could usefully facilitate the activities of states parties in certain circumstances;
- represent states parties collectively in relations with the UN and other bodies. A pertinent example would be liaison with the UN 1540 Committee as well as other committees or bodies dealing with weapons of mass destruction-related issues that may also require some kind of formal, albeit occasional, representation of the states parties. Currently, no such representative exists; and
- facilitate the provision of simple technical assistance to states that are having difficulty implementing treaty provisions, such as the CBMs, or matching states parties willing to provide assistance with those requiring it.

Practicalities

As the work of states parties has evolved from review conference to review conference, the BWC staff have emerged as essential to support the work of states parties. The existing staff are a resource dedicated to the BWC and its states parties, and this arrangement is preferable to staff being taken from a pool in the UN where they may have competing priorities. The arrangements in place as a result of the decision of states parties in 2002 have worked relatively well up to now. Some refinement may, however, be required. Before finalizing any arrangements for the period 2007 to 2011 the Depositaries, or the President of the Sixth Review Conference, should seek the opinions and views of states parties about the functions and responsibilities of BWC staff, as well as the advice of the three Chairs of the meetings in 2003, 2004 and 2005, the advice of the president and the Chairs of Committees of the Sixth Review Conference, and the views of the BWC staff themselves. The experience, and any lessons, of the past few years should not be lost for want of a simple consultation exercise. Such an exercise could identify new tasks for the BWC staff, relieve them of unnecessary or extraneous responsibilities, and help them to improve the quality and effectiveness of their work.

The costs of the existing BWC staff, with provision for additional staff prior to and during meetings of the states parties, are known. To date the cost of this support has not been burdensome on states parties. On balance, even with additional administrative or facilitative tasks such as those envisaged above, or new responsibilities that might be decided by the states parties in 2006—and may require additional BWC staff to serve

for part of each year or on a contractual advisory basis—there is no reason to assume it will become a significant financial burden in the near future. States parties have provided funds to employ their own support staff since 1997, and continuing the present arrangement—assuming a further programme of work and activity is agreed by states parties—should not be controversial.

Pessimists will be concerned that if tasks are not clearly defined the BWC staff will stray from their mission or sit idle awaiting instructions from states parties. The latter is unlikely and is not known to have been an issue to date. The former may involve concerns about BWC staff overstepping their mandate and becoming involved in areas of activity that states parties would prefer to keep tightly in their own orbit. Again, experience with the BWC staff has not proved this to be a problem to date and, as long as a competent and experienced head of the BWC staff continues to be in place, it should not present a problem in the near future.

In an ideal world granting permanence to the BWC staff would transform them into a more recognizable secretariat and give a commitment to lines of funding. One method of doing this would be to follow the intentions of the 1991 proposal by the UK. At this time of recovering a political commitment to the convention and its meetings of states parties, the idea of permanence may be a step too far for many states parties. An aversion to institutions and an uneasiness about the idea of permanence among some states parties, along with an unwillingness to provide additional funding to the UN, rule out the option of creating the kind of permanent secretariat in 2006 that exists for other treaties and conventions. Furthermore, the existing role of the BWC staff and the current level of activity among states parties do not warrant the creation of something akin to the OPBW. That is not to say, of course, that the level of activity undertaken by states parties to enhance implementation of the convention is sufficient for the task in hand, or that an OPBW will not be required in the future.

Permanence, however, may not be necessary or even desirable in the immediate future. It may also be a misnomer. A continued programme of work or of activities by states parties will require support commensurate with that already in existence. An increase in activities by states parties or responsibilities allocated to the BWC staff will require a commensurate increase in funding in order to fulfil the identified tasks effectively. As in 2002, on reaching a decision to conduct further work, the states parties simply need to agree the budget to fund such activities and to provide themselves with BWC staff support. The BWC staff are most likely to remain funded by the assessed contributions of states parties.

The number of individuals appointed to the BWC staff depends on the functions it is requested to carry out. VERTIC's 2004 WMDC study suggests that 'ideally it would require at least five permanent personnel staffing

an office located in the UN Secretariat's Department for Disarmament Affairs, preferably in Geneva, which is where BW meetings have traditionally been held'. As it stands, the BWC staff of two to three individuals appears equal to the current tasks. If states parties request the secretariat to undertake additional tasks, or more specialized work, then other skills may have to be developed through the recruitment of additional staff. Such staff might be seconded by a state party or recruited for short-term projects.

Any BWC staff appointed to support the convention will need to possess the necessary administrative, political and public information skills. Diplomatic experience is also necessary. Given the scope of the convention and the complex issues related to its implementation, at least one member of staff should have a scientific background—preferably in the life sciences. States parties would be prudent to put in place budget allocations that permit the recruitment of specialist staff for specific tasks, such as a legal adviser or a scientist to consider scientific and technological developments. Any tasks undertaken by additional advisory staff will stem from decisions taken by the states parties. In that respect, there is little danger of any 'secretariat-creep' under the existing arrangements. The provision of additional funding should be made with the understanding that if such recruitment is not required the necessary adjustments are made to final payments in the period between 2007 and 2011.

Advantages

A recognizable, but low-level, secretariat of sorts already exists. BWC staff have proved an asset to states parties. The financial cost of the existing BWC staff is known and has not been a heavy burden on states parties. Any new BWC staff recruited to support the work undertaken between the sixth and seventh review conferences could evolve out of the existing arrangements. This has the advantage of simplicity and, not unimportantly, familiarity to states parties. New scientific or legal staff would not necessarily increase costs in a linear manner. Some additional staff may only be required for specific periods of time or for specific time-limited tasks. Additional costs are, therefore, likely to be pro rata to existing rates and thus minimal to states parties.

The BWC staff could take on certain functions for the states parties. Some of these tasks may be latent, such as maintaining an information database on scientific publications of relevance to the convention, or result in the CBMs being deposited with BWC staff in Geneva rather than with UNDDA staff in New York. If other BWC-related units emerge, or other international organizations become engaged in BW-related work, BWC staff could usefully carry out a liaison role between them and the states parties.

Disadvantages

States parties to the BWC have generally opposed any institutionalization of the convention and continuing the current arrangement might be viewed as being the ‘thin edge of the wedge’ of a larger set of support elements and staff. In addition, there may still be some fears that any continuation of the BWC staff represents an attempt to create a nascent organization or secretariat that is intended to morph into a full-scale verification or compliance body along the lines of the OPCW. While such fears are overstated—any BWC staff can only fulfil the activities its states parties support and provide funding for—the political realities cannot be entirely ignored. The convention is recovering from its low point in 2001 and early 2002. Key states parties to the BWC have already set their sights on a pragmatic outcome to the Sixth Review Conference, as evidenced by statements made at the Preparatory Committee. Any attempt to significantly expand the existing BWC staff into a nascent OPBW would be politically naive, almost certainly doomed to failure, and wholly without justification in 2006. When, and until, states parties to the BWC agree on the necessary legal basis for increased transparency in information, assessments of accuracy of that information and compliance with the BWC in the future, a more extensive support structure may be required. Until that time, current arrangements and a modest expansion of them will suffice.

Maintaining the review conference to review conference approach to BWC staff may not, however, be sustainable beyond a further five or six years. It maintains the perception of a fragile commitment to enhancing implementation of the convention. If, in the future, states parties are unable to agree on an outcome, the BWC staff risk being lost and with them extensive experience and skills relevant to the convention.

Implementation support mechanisms

A complete picture of actual implementation of the convention is not available to states parties. This lack of even basic oversight of implementation across all 155 states parties (as at 2 October 2006) is one of the principal reasons many continue to support the development of a comprehensive verification and compliance agreement. Some states parties may be able to generate a detailed picture of activities for themselves, but many cannot and this lacuna in implementation knowledge is a significant shortcoming for states parties collectively.

Problems with actual implementation are well known. Too many states parties have not fulfilled their commitments under Article IV of the convention.⁴⁵ It is also true that there are many reasons for failing to comply fully and effectively with obligations under the BWC. For certain issues, such as the CBMs, non-compliance may be linked to a lack of resources to fulfil obligations. This kind of technical non-compliance is common in many international agreements. Other states parties may not comply because they are unaware of the scale and scope of their commitments; others still are unaware of how to fulfil their obligations. Lack of capacity does, of course, raise concerns about actual ability. For example, if a state party is unable to fulfil its national implementation obligations, then questions do have to be raised about its ability to comply with the BWC. Finally, it is known that in the past some states parties have not only failed to comply with the convention, but have purposively violated it.

While violation is a serious issue of non-compliance, the majority of non-compliance may not be wilful or deliberate. This is now recognized as having potentially detrimental consequences. The efforts of states parties between 2003 and 2005 have gone some way to address the shortcomings in implementation, but much work is still required. Furthermore, while it remains a national responsibility to enact the necessary implementing legislation and other measures, some level of international oversight of activities and the scope and scale of the measures in place to give effect to the BWC is also necessary. The requirements for reporting under UNSCR 1540 (2004) and the work of the UN 1540 Committee are evidence of this. Equally, as was noted elsewhere

in 2002, ‘a failure to articulate an international standard that governments would be expected to meet’ would result in a situation where ‘many governments will enact measures that fall far short of worthwhile standards . . . [which] . . . would foster an uneven patchwork of domestic laws and practices that might have little near term value and could prove difficult to harmonize in the near future’.⁴⁶ In short, safe havens for the development, production, stockpiling and transfer of biological and toxin weapons could exist, even inadvertently.

A comprehensive verification and compliance agreement is not necessarily required to close the gap between states parties. States parties should consider a number of measures that could go some way to ameliorating known problems that are caused by a lack of knowledge and ability rather than deliberate disregard. In this section of the report these are brought together under the rubric of ‘implementation support’, where the objective is to identify areas of work that states parties could undertake together or in a pluralist or a regional context to close as many of the ‘inability gaps’ as possible. VERTIC proposes consideration of the following implementation support mechanisms under the rubric of convention implementation advisers:

- Implementation advice through a network of experts, in part facilitated by a central contact point and a website administered by the BWC staff in Geneva;
- Scientific and technical advice through a scientific and technical advisers’ network (STAN);
- A legal advisers’ network (LAN); and
- A CBM unit.

These will not resolve all the problems related to implementation of the BWC, but by targeting ignorance of what has to be done and how to do it, the distinction between states parties that would implement the convention if they could, and those that do not want to implement its provisions fully becomes much easier to make. Removing potential and unwitting safe havens and filling the gaps in states parties’ implementation mechanisms is in the interests of the security of all states parties. Where necessary, assistance may be required. Indeed, the experience of VERTIC in its National Implementation Measures project⁴⁷ indicates that many states parties would welcome—or even request—implementation assistance.

A further factor in considering the types of measures identified below is that what has to be done to implement the convention is not a static list of requirements. As the requirements change to meet new threats or strengthen newly identified weaknesses, an ability to inform all states parties of these new risks to the convention would be beneficial. Currently, only the review conference brings together a large number of states parties to

circulate information or have broader discussions about whether the purposes of the convention are being met. Around 80–90 states parties attended each meeting between 2003 and 2005, indicating that over 60 states parties do not attend such meetings and are, as a result, unlikely to be aware of the issues the other states parties have considered. A state party, or the Depositaries, could circulate information via *note verbales* or other forms of diplomatic communication, but a central point for information dissemination is missing. This once-every-five-years approach is a weakness in an era when globalization and rapid scientific and technological developments continue to bring great benefits to all states parties but also bring new risks and potential threats.

Convention implementation advisers

In order to help states parties to implement their various treaty obligations, there is a need for a body to co-ordinate the implementation advice and assistance provided to them by a range of actors including other states parties, and international and regional organizations. Such assistance would go beyond legal assistance with national implementation—undertaken by the LAN function below—to include such areas as customs and law enforcement, ensuring the safety and security of pathogens, some forms of biodefence (compatible with nonproliferation objectives) and consequence management advice and assistance in case of a BW attack. There are existing models for discrete teams acting on specific topics in both the OPCW and the IAEA that offer advice to states parties through various offices, bodies, and under agreed action plans—as well as through the simple transmission of information to all states parties. More specialized examples include the Implementation Support Unit,⁴⁸ which was established in the Geneva International Centre for Humanitarian Demining (GICHD)⁴⁹ to support states parties to the 1997 Ottawa Landmine Convention. States parties from the BWC might usefully emulate appropriate models from other areas when developing their own form of implementation advice.

The requirement for implementation advice is clear across the convention. The implementation advisers from states parties would generally be the desk officers in government departments or agencies that are addressing the specific issues.

Suggested functions

Implementation advisers would use the BWC staff website or its office as a central contact point to:

- Co-ordinate offers of and requests for assistance across all sections of the BWC. In addition to the STAN, LAN and the CBM unit, possible sub-teams on destruction of agents and toxins (for acceding states parties) and redirection assistance for former weapons scientists, bio-security issues, preparation and training for consequence management in the event of BW use, emergency assistance co-ordination, legal issues relating to the investigation of biological and toxin weapons use, as well as peaceful co-operation issues such as bio-safety, Good Manufacturing Practice and Good Laboratory Practice could all be considered, as well as other areas states parties might identify;
- Provide links to other advisers in relevant organizations. In order to avoid duplication of resources, creating synergies and facilitating consideration of BWC-relevant issues in other areas, linkages and contact with other organizations such as the FAO, Interpol, the OIE, the OPCW, the UN 1540 Committee, the UNCTC, the WHO, the 1992 Convention of Biological Diversity and others would assist states parties;
- Develop a specific advisory function on issues related to BW terrorism. Concerns about terrorism and non-state actors' potential use of biological or toxin weapons has risen up the agenda in recent years. While many of the organizations noted above work on specific issues related to this threat, states parties might consider developing a specific advisory team on issues related to BW terrorism. This could emulate the UN Counter-Terrorism Committee's Directory of Assistance model as one option, or simply aim to develop more concrete links between organizations such as the UNCTC or Interpol working on counter-terrorism issues;
- Promote compliance with all low-level obligations by addressing all the issues of relevance across the convention. By working outside the meetings of states parties, although using such meetings to maximize their contact with each other and raise their profile with other states parties, implementation advisers would offer compliance support and assistance to all states parties in a non-controversial manner; and
- Provide a useful and cost-effective information clearing-house that permits many states parties to help themselves as much as possible. States parties could develop the implementation support advisers at minimum cost through the use of the existing BWC staff website. That website already contains information relevant to states parties—and prospective states parties—on issues such as CBMs and ratification and accession. It would not be difficult, or financially costly, to develop other specific sections or pages on the website for implementation advice on all aspects of the BWC.

Practicalities

Unless states parties wish to develop a quasi-organization or institutional element beyond the BWC staff in Geneva, developing the network will require a central point of contact. The network would, therefore, require the retention of the existing BWC staff as a nominal home and a supportive framework. As envisaged, the provision of actual information is likely to be a key issue in implementation for many states parties. The BWC website—www.unog.ch/bwc—could therefore serve as a useful information clearing-house for states parties.

One alternative, should states parties not wish to use the existing BWC staff, would be for a state party—or group of states parties—to act as a contact point on issues for others. This, however, has the disadvantage of not being perceived as a neutral body.

A network of implementation advisers will take time to develop. The network will therefore have to start from small beginnings and develop based on actual requests for information or advice from states parties, and expand once it has proved its worth. The network would be based on advisers from states parties—or those that may be appointed by states parties for specific periods of time or tasks, thus it would be a small and non-permanent ‘virtual’ body. Advisers and experts would therefore be interchangeable.

Rather than consider this an international network, states parties might usefully conceive of a network of implementation advisers on a regional basis. For example, if a website is used, the identification of region-specific advisers could be included. States parties in a given region are likely to have good contact with each other and share similar areas of concern. This approach would also permit contact and co-operation with other regional work led by other intergovernmental organizations or non-governmental bodies. States parties have developed their co-operative activities on a more regional basis in recent years, such as the workshops jointly convened by Australia and Indonesia or the activities of the EU member states. There is nothing to prevent similar co-operative activities or contacts in other regions, for example, in the Americas or in a Latin American network, or in an African network.

In all cases, the success of the advisers’ network depends on the availability of support from states parties. States parties would make available their experts at their own cost in order to avoid a large financial burden. While some states parties may not be able to provide all kinds of experts, the provision of one or two experts or, equally important, of the information that such expertise exists and is available for others to draw on as costs permit, is important.

Advantages

The principal advantage of establishing a framework for implementation advice is that it is a low-cost means of facilitating information and advice for all states parties. Start-up costs are avoided by using the existing BWC staff website as a base for the provision of information. Once the idea of a network is agreed and begins to function, the various types of advisers could take on tasks without the need for agreement or authorization by the BWC states parties. By facilitating regional and bilateral assistance and advice, states parties do not need to agree collectively on the activities undertaken by advisers.

The second advantage of the network is that its flexibility permits it to expand and contract in terms of the number of personnel involved in its work as the demand and need for it are identified. Any costs to individual states parties would, as a result, be based on the need for its services and only increase as and when funding is available or obtained.

The third advantage of the network is that it would serve to generate support for the BWC and its obligations among a wider community of states and experts inside states parties.

Disadvantages

The implementation advisers' network would not be a standing body. It would only be quasi-official and it would rely entirely on the political, financial and technical support of those states parties willing to provide advisers to other states parties. A second disadvantage is that, in addressing all aspects of the convention and its implementation, states parties may be wary of agreeing to the existence of a mechanism that is potentially very broad.

A scientific and technical advisers' network

The rapid developments in the life sciences are well documented. The necessity of ensuring that the scope of the BWC is sufficient to ensure that it covers all scientific developments is also well known. It is one thing, however, for states parties to determine—once every five years at best—in a final declaration of a review conference that the convention is sufficiently comprehensive to cover all developments in the biological sciences, biotechnology and the life sciences, as they have done in previous review conferences, and quite another to communicate to states parties how various risks posed by peaceful scientific developments should—and must—be addressed in national regulations, administrative undertakings and new legislation as required.

For a number of years the idea of a scientific advisory panel (SAP) has been proposed by non-governmental and, from 2001, states parties. The scientific and technical advisers' network differs from the SAP in that it aims to communicate to states parties practical ways and means to address any weakness, risks, or threats posed by scientific and technological developments to the implementation of the convention. The threats posed to the implementation of the convention is the key factor because VERTIC, like states parties, believes that Article I of the BWC addresses itself to all future developments in science and technology.

Under the STAN it is envisaged that the scope of the network would not be limited to Article I of the BWC. The network could play an important role in communicating scientific and technical issues across a range of articles, including Article VI and Article VII, with respect to detection technologies and the work of other organizations such as the FAO, the OIE, Interpol and the WHO in responding to the deliberate use of pathogens or toxins for hostile purposes, and Article X for issues related to peaceful co-operation.

Suggested functions

The STAN could:

- Review scientific and technical developments of relevance to the convention and all its articles;
- Act, through a centrally agreed contact point, as a forum to bring together scientific and technical advisers from states parties;
- Collate information of relevance to states parties on scientific and technical developments and make it available, through a science and technology database or a similar information clearing-house mechanism, to all states parties;
- Review reports or agreements written by other organizations on scientific and technological issues and bring them to the attention of all states parties. For example, the reports of non-governmental bodies such as the US National Academies *Globalization, Biosecurity, and the Future of the Life Sciences* or the recent workshop convened at The Royal Society in the UK (September 2006) on scientific and technological developments of relevance to the BWC are likely to be of interest to all states parties. Where appropriate, the STAN could liaise with these other organizations;
- Facilitate the delivery of advice, information and assistance on how to address scientific developments that may pose a risk to the convention; and

- Bring together scientific and technical advisers from states parties at international, regional, or other levels to give their views on how scientific and technological developments might pose a risk to or benefit the convention and its states parties.

Practicalities

Membership of the STAN would not be fixed. Nor would the STAN exist solely as a body that convened a certain number of times between review conferences. As a network, rather than an organization or panel, the STAN would offer greater flexibility. States parties could nominate their scientific and technical advisers, or offer a contact point for such advisers, to the BWC staff in Geneva. Through the existing BWC website based in Geneva, the STAN could act as a repository of information on scientific issues of relevance to the convention. If a member of the BWC staff was a scientist, that individual could facilitate the work of the STAN. Its members could convene separately on the margins of meetings of states parties or subsets of members might meet at the regional level as appropriate.

The STAN would be more a virtual organization than a SAP with a formal or tangible structure. There would be no explicit requirement for the STAN to agree formal reports among its members for submission to states parties, no immediate budgetary implications for meetings of its members, and no direct costs—other than the maintenance of the BWC website—to states parties collectively. The flexibility of the network would permit all states parties to access information of relevance to the BWC at any time and to facilitate contact between states parties' scientific advisers. The STAN could also act as a facilitation network to ensure that other areas of implementation support for the BWC are sufficiently aware of the scientific and technical issues that need to be considered in relation to legislation, assistance and co-operation as appropriate.

A legal advisers' network

VERTIC's 2004 WMDC study noted that VERTIC's 2003 study on national implementation reveals that many states parties lack knowledge of their obligations under Article IV as well as 'the necessary resources and expertise to comply with it'.⁵⁰ Article IV of the convention is clear: each state party must 'take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the convention, within the territory of such State, under its jurisdiction or under its control anywhere'.

At the 2003 meeting of states parties the final report noted that certain measures and approaches were of substantial value to effective implementation of the convention. Since that meeting, UNSCR 1540 (2004) has obliged all states to enact and enforce effective laws and supporting measures to prevent the proliferation of nuclear, chemical and biological weapons, related materials and their means of delivery to non-state actors. As is made clear in the Resolution, the objective of the Security Council was not to override the existing obligations of states parties to the BWC—or the CWC or NPT—but to ensure that measures were in place globally to prevent terrorist acquisition of weapons of mass destruction.

It is one thing, however, to reiterate the necessity of meeting existing obligations under the BWC, or under UNSCR 1540 (2004), and quite another to assist states to meet those obligations. While offers of assistance were made in 2003 and subsequent years it is unclear how effective assistance has been and whether states parties have reviewed, amended where necessary, and adopted the new legislation, regulations and administrative measures required to meet their obligations under the BWC. To achieve the objective of all states parties having in place effective national implementation measures the states parties will collectively have to move beyond exhortation and limited offers of assistance to embrace a much more proactive approach to the issue. This will require states parties to develop a comprehensive database of the legislation, regulations and other measures existing in each state party in order to identify the baseline of national implementation across the BWC. In order to achieve this basic element a decision will have to be made to mandate all states parties to lodge copies of all their relevant national implementation measures in a central repository. This could be either under the remit of the Depositaries—which would require the Depositaries to then co-ordinate and translate the submitted information between themselves before releasing it to the other states parties—or under the care of a nominated state party on behalf of all others, or under the care of the United Nations. The latter is, without doubt, the least politically contentious option and offers the greatest opportunity for taking advantage of existing databases, such as the UN 1540 Committee's legislative database, VERTIC's BWC legislation dataset⁵¹ and the publicly accessible reports submitted to date.

Once a baseline of information has been obtained, preferably after a decision at the Sixth Review Conference to set a timetable for reporting to the nominated repository, states parties will need to take two further decisions. First, they must agree to review the information submitted to identify where adequate national implementation is in place, and where it is not. Reviewing the information is unlikely to be done productively by all states parties together. It will need to be undertaken by a group of legal and technical experts on implementation of the BWC. This group will then need to report to states parties. Second, on receipt of that report, states parties will have to agree on how to address identified areas of weakness.

Different approaches could be undertaken to this second aspect. One option is for states parties to work bilaterally or regionally with each other to rectify known deficiencies. An example of how this might be achieved is the EU Joint Action of 2006, which includes support for implementation of the convention and assistance ‘in order to ensure that States Parties transpose the international obligations of the BTWC into their national legislation and administrative measures’.⁵²

Another option is for states parties to identify the minimum elements and measures necessary for national implementation and, once identified, require states parties to report by a further specified date on their progress in achieving these minimum criteria, providing copies of new or amended measures to other states parties. It would be useful for states parties to have an indication of the minimum expected of them and the required standards of implementation. In 2003, the British Foreign Affairs Committee recommended that the British government ‘consider the merits of establishing a co-ordinating mechanism, to assist weaker BTWC States Parties in the development and implementation of effective criminal legislation to translate the convention’s prohibitions into their own domestic laws’.⁵³ The British government’s response to this recommendation included the observation that it ‘would support the establishment of such a mechanism’ and that, ‘[i]f a single co-ordinating mechanism is not achievable in the short-term, HMG will explore ways of assisting States Parties that require support in the framing, drafting and implementation of relevant legislation’. The UK has acted on this recommendation in the EU framework but, despite its positive work, a significant implementation gap between states parties is likely to remain. It is this gap that needs to be closed.

Building on VERTIC’s 2004 WMDC study and the observations contained in a separate VERTIC report, *National Measures to Implement WMD Treaties and Norms: the Need for International Standards and Technical Assistance*,⁵⁴ VERTIC recommends that states parties establish a network of legal experts to advise on national implementing measures.

Suggested functions

The LAN could:

- Promote the obligation to adopt appropriate national implementation measures for the convention;
- Establish a database of national implementation legislation for the BWC among its states parties, with the repository being either the BWC staff, the UNDDA Offices, the Depositary governments, or a nominated state party;
- Review all reported and submitted national implementation measures passed to the LAN and its central contact point;

- Liaise with legal officers of other international organizations working on issues related and relevant to the implementation of the BWC, including the FAO, Interpol (Biocriminalization Unit), the OIE, the UN 1540 Committee, the United Nations Economic and Social Commission (ECOSOC) Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, the World Customs Organization (WCO), the WHO, and the 1952 International Plant Protection Convention (as amended);
- Devise, based on the experience of states parties and other available data such as the reports to the UN 1540 Committee, requirements for national implementation measures;
- Establish a database of contacts for legal advisers in states parties;
- Develop and agree a programme of work for assistance to any state party that requests it, to be completed either bilaterally, regionally, through regional or other organizations, or through collective efforts by states parties;
- Organize meetings, workshops and training programmes, to permit each state party to undertake as much of this work as possible at the national level, in accordance with their own constitutional processes;
- Develop templates of national implementation for consideration by different types of states parties depending on their requirements. This may include model legislation, implementation requirements and the methods for undertaking periodic reviews of the effectiveness of national implementation measures; and
- Report through either the LAN members or each state party at periodic intervals on the status of national implementation and the achievement of minimum criteria by each state party.

Practicalities

The LAN would not be a panel or fixed organization. Its membership would be determined by states parties and who they nominate to it. Members of the LAN may find it easier to organize on a regional basis, with tacit agreement to work with states parties in their own region as a priority, notwithstanding that any state party may request assistance or advice from any other state party. A central contact point and repository of information will be required. As is indicated above, there are a number of options for this, but the simplest, least controversial, and most cost-effective would be to lodge all legislation and related information with the BWC staff in Geneva, with a website acting as a central information point for states parties. In the event that BWC staff are not used, the Depositaries, or a nominated state party, or a non-governmental organization could be given the task of collating the information submitted. The latter option would have financial implications for states parties.

Members of the LAN could co-ordinate and discuss their activities at meetings of BWC states parties or on the margins of other meetings of states parties. A meeting of LAN members may be necessary, but the objective should

not be to agree on a single model of actual implementation. Minimum criteria will have to be agreed, but given the related politico-legal issues, all states parties will have to agree these either at the Review Conference or in a subsequent meeting.

To ensure that network members have concrete information to work with, states parties must agree to submit copies of their national implementation measures to other states parties—preferably through an agreed central contact point. In effect, this will require an additional agreement relating to CBM E on national implementation. Rather than encouraging all states parties to deposit copies of their legislation, a mandatory submission could be required in an agreed period of time, for example, by 15 April 2007. In order to assess the effectiveness of these measures, states parties should also require a second submission by 15 April 2011 for consideration by the states parties at the Seventh Review Conference.

The most cost-effective way of facilitating the LAN is by the use of the BWC staff and the existing BWC website. The temporary employment—or secondment from a state party—of a legal expert may be required at periodic intervals, although the receipt of copies of legislation and other measures and insertion of the necessary data could be completed by existing staff—as existing meetings secretariat staff did in 2003. A member of the BWC staff or a nominated, employed, or seconded expert from a state party will need to be assigned to co-ordinate with other international bodies. Much of the necessary information on national implementation measures should have been reported either under the CBMs to states parties or to the UN 1540 Committee. Where possible, this existing data should be exploited to the maximum extent.

Advantages

The past five years have witnessed an increased emphasis on national implementation measures both by states parties and internationally in the UN Security Council. The establishment of a LAN under the BWC would permit states parties to move beyond exhortations on the requirements for national implementation mechanisms to address known weaknesses in a constructive, low-key and non-controversial manner. The LAN proposal is based on information sharing, on agreed minimum requirements identified by states parties, and on facilitating states parties to help themselves. The LAN is not about the imposition of a particular model of national implementation: it is about working with those states parties known to have weak points in their implementation to identify how those gaps could be filled. Using a cost-effective central information repository, LAN members could work bilaterally, regionally, with other international organizations, or pluralistically and multilaterally as they think fit. Establishing agreed reporting

dates for states parties in 2007 and 2011 would allow the LAN to be assessed for its effectiveness: if it does not work, it can be abandoned in 2011 and a different course of action agreed. By bringing together different national, regional, constitutional and other approaches, in all six UN languages, many states parties could be persuaded to participate in the activities of the LAN.

Disadvantages

The envisaged network is not a legal advisory panel as envisaged by others.⁵⁵ The difficult legal questions and different interpretations of the convention relating to some of its fundamental articles would remain unaddressed by this network. Nor is the LAN a substitute for the kind of legal advice that the IAEA and the OPCW can provide to its states parties and member states. It would not be possible to address non-co-operation or non-participation by states parties through incentives or disincentives applied by other states parties. The system would rely on a high degree of co-operation and commitment. States parties would have to agree to submit copies of all their national implementation measures, have them reviewed by others, agree minimum criteria that all states parties must meet, and to seek or provide advice on how to rectify gaps in implementation. The network will rely heavily on those states parties with expertise that are committed to volunteering, seconding staff and covering the costs of their experts in the LAN. Finally, if states parties do not commit to maintaining national implementation measures at the forefront of their efforts, the network will quickly become redundant.

A confidence-building measures unit

A separate area of implementation support that has also been mooted is the idea of a confidence-building measures unit. This is the most problematic, and arguably the most difficult, of the envisaged support mechanisms to devise. These difficulties are not related to the complexity of analyzing the CBMs or of assisting states parties to fulfil their responsibility to submit information annually by 15 April on specified activities. Nor is the difficulty in devising such a mechanism. The difficulty is political. States parties remain reluctant to undertake any collective or official assessment of the CBMs returns—all the assessments are done at the national level.

Since the demise of the BWC protocol the CBMs have resurfaced as an important part of the BWC. They are already agreed, have many years of implementation behind them, and are ripe for more detailed consideration in 2006 and beyond. Full, complete and accurate CBM returns offer important opportunities to enhance transparency and accountability among the states parties. The fact is, however, that the CBMs have failed to achieve their latent potential. This is because a significant number of states parties have never returned a CBM, and many others have made only intermittent submissions. As recent analysis identifies, the peak year of submissions was a decade ago—at the Fourth Review Conference in 1996 when 53 states parties submitted the required information. Since that time interest has waned, with only 39 states parties submitting information in 2001, 41 in 2002, 33 in 2003, 43 in 2004 and 50 in 2005.⁵⁶

In 2004, in an attempt to alleviate the lack of returns under the CBMs, Canada prepared and circulated a guide to assist states parties with completing the CBM forms.⁵⁷ Thus far, there has been only a modest increase in the rate of returns, which could indicate that inertia in states parties is a bigger problem than the administrative difficulties of completing the returns.

Future work on the CBMs can be divided into different categories. Increasing the rate of response and the utility of the information provided in the CBMs are two separate areas of work. Minor changes to the format and modalities of the CBMs may increase participation rates and make the CBMs returns more user-friendly. There is also the

question of assessing the CBMs returns and whether such analysis should be undertaken by states parties collectively or by a non-governmental organization.⁵⁸

In the 2004 WMDC study, VERTIC proposed that a CBM unit should be established to enhance support for CBMs among states parties. The 2004 proposal suggested that this should be combined with a decision by states parties to make compliance with the information exchange mandatory, and to make the data submitted publicly available. A further step identified for consideration was that a decision of the UN Security Council should require all UN member states to submit declarations equivalent to the CBMs, thus making the obligation binding on all states.

Pending these decisions by states parties and the Security Council, which VERTIC maintains are still necessary in the absence of a verification agreement between states parties to the BWC, a CBM unit should be established to carry out these identified functions. The principal objective would be to increase the rate of returns and the quality of the information provided by the states parties. The envisaged CBM unit would not only be concerned with analysis and assessment of the CBMs. It is more appropriate to think in terms of a CBM expert group, the membership, mandate and operation of which changes depending on the task in hand. Furthermore, this expert group would not necessarily have to exist or operate throughout the year; it might undertake certain tasks at particular times depending on the cycle of submission and distribution of the CBMs. For example, in the period between May and July it could conduct analysis of those CBM returns submitted on time (15 April), issue reminders about the required submissions to non-returning states parties, and provide assistance with completion of the CBMs to states parties who request it. Between September and November, by which time more returns have usually been submitted by states parties, a more thorough analysis could be undertaken of the submitted CBMs and information would be passed to states parties in preliminary form. The CBM unit could also approach bilaterally, or under a regional agenda, those states parties that did not submit CBMs to ascertain why the commitment undertaken has not been fulfilled. Rather than being punitive in its entirety, the CBM unit could work with one or two states parties from that region that have submitted CBMs on a regular basis with a view to offering assistance, clarifying any questions about the CBMs, or offering what co-operation may be necessary to permit the submission of a CBM the following year. By December, through the activities of the states parties and the CBM unit, a complete analysis of the submitted data should be available for release. The functions of the CBM expert group would vary under a number of categories.

Administrative

The priority of the CBM unit in this area would be to improve the administration of the existing system. This could be done by reminding states of their reporting requirement in April of each year, possibly by alerting states formally in

January of each year that the return is due on 15 April. This task could be given to the Depositaries, a nominated state party acting on behalf of all the others, or to the UNDDA. Arguably, this is a basic administrative function that could be undertaken equally well by the BWC staff in Geneva on behalf of states parties if they so authorized. The role would encompass:

- ensuring that each state party has the CBM forms;
- confirming receipt of the submitted information from each state party;
- issuing reminders to states parties that have not submitted a return by the due date;
- issuing reminders at agreed periods thereafter, for example, every month until the December of that calendar year; and
- collating the returns and distributing them to states parties, including circulation electronically to states parties that have submitted returns.

A facilitating role

The existing BWC staff, together with a small group of experts, could assist states parties with their reporting requirements. This might entail assistance in gathering the data—albeit that this would be difficult to carry out—or practical assistance in preparing the CBMs before submission in order to ensure that the correct information is collected for inclusion on the forms. This work would take the training inherent in the Canadian guide to completing the CBM forms one step further by facilitating assistance between states parties. In order to support this, the experts in the CBM unit could maintain a website providing information on the CBMs as well as the assistance available to support their submission. A further facilitating role would be translation of the CBMs into the six languages of the UN, or at least into one common language for all, prior to distribution to states parties.

Review

A review function periodically carried out by experts could advise states parties at each review conference about where further decisions are necessary. There are a number of technical issues which require occasional attention (e.g. the reference to the WHO Laboratory Biosafety Manual remains to the 1983 edition but a new edition was published in 2004). Where there are problems with interpreting a request for information because of the wording or modality of the request, the expert group could also advise on these issues. A more comprehensive review could lead to recommendations on updating the CBMs requirements by deleting, amending, or revising the existing CBMs as appropriate.

or developing modalities for new CBMs if required. The experts would make recommendations for adoption by the states parties. This approach follows past practice—an expert group devised the modalities of the information exchange in 1987 and a small group of experts worked at the Third Review Conference to bring back ideas to the conference president for consideration by the states parties during the review conference.

Assessment

Achieving any agreement on analysis or assessment functions for the CBM unit will be difficult. States parties are unlikely to go this far in 2006, but thinking on how this might be achieved is worthwhile for future years. Assessment could be developed in a number of ways. Political realities dictate that the CBM expert group will need to be made up of states parties with assistance from the BWC staff. If the CBMs are interpreted in a manner similar to the UN Register on Conventional Arms, then an assessment unit from the UN could be developed. However, it seems more likely that only states parties to the BWC could make a credible claim to undertake assessment of the CBMs—unless and until states parties determine that the CBMs are to be made available to entities other than themselves, the UNDDA and the WHO.

States parties should consider the following to be part of an assessment process:

- To establish a CBM unit facilitated by, and based with, the BWC staff. States parties would commit to sending their returns electronically to BWC staff, or permit these staff to convert them into electronic documents, and for them to be entered into a database that is accessible to states parties;
- States parties would nominate experts to serve in the CBM unit for specified periods of time. All states parties would receive the existing compilation of CBMs in hard copy form. All submitting states parties would receive copies of the information in hard copy and electronic form. The database of information would only be available to those states parties that have returned a CBM for the previous calendar year;
- States parties that have submitted CBMs would be requested to provide a basic analysis of the CBMs;
- The Depositaries, the UNDDA, or the states parties would then collate the basic information on non-submitting states parties, such as whether a CBM has been submitted since 1987;
- The Depositaries or a designated state party or the UNDDA would then be asked to contact non-returning states parties and seek a return in accordance with the undertakings of the BWC.

The role of civil society in relation to CBMs and their analysis depends to a large extent on the availability of information. Individuals have undertaken assessments of the returns made under the CBMs, including comparative

evaluations using open source information, proving that it can be done. The best starting point, however, might be national assessments undertaken by members of civil society of their own state party's CBM submission. At least six states have made available their CBMs on the UNDDA or BWC website (Australia, Finland, Malaysia, Sweden, Switzerland and the UK) and the US CBM for 2004 is also available online. Each state party owns its CBMs and from a civil society perspective assessments of national CBMs should begin with their 'home' CBMs; thus civil society groups based in the UK would prioritize the British submission, Swedish groups would prioritize the Swedish submission, and so on. This is a starting point, but it is one with a strong logic: verification of compliance begins at home.⁵⁹ The information and data submitted would be correlated nationally with other sources of information to ensure that the number of declared laboratories is accurate, that the existence and budget of the biodefence programme corresponds to that declared, and so on. At face value this may appear confrontational, but it is not intended to be. Civil society can assist a state party by conducting an assessment of the national CBMs and identifying information that may be contrary to other sources of information provided by the state or other reputable international data. The objective is not to accuse states parties of deliberate non-compliance, but to improve the quality of the data and increase transparency. A concerted effort by, for example, a New Zealand-based civil society group to analyse the New Zealand submission would probably be much more intensive than that currently undertaken by other states parties. If a national CBM can 'pass muster' with an interested civil society group or representatives from national legislatures, then it is likely to pass muster—and thereby increase confidence in transparency—with other states parties. Of course, this relies on an active civil society and in most cases will be limited to democratic states parties. It is, however, a start—and an important standard-setting exercise.

The problem with increasing the role of civil society in CBMs assessments is that, unless it is given access to information beyond the CBMs returns, any civil society assessment will be limited because: (a) only states parties have official access to the CBMs returns; (b) the CBMs form only part of a state party's overall assessment of the activities of another state party. Other sources of information—including intelligence—complement the information received under the CBMs and without access to these sources it is difficult to put the data received from a CBM return into context; and (c) civil society scrutiny of CBMs may result in fewer returns because states parties would have no control or input into the assessment process and might therefore lose confidence in the role that the CBMs are supposed to play.

The link between a CBM unit established by states parties and civil society groups, however, would be minimal. While such a unit could draw on other public sources of information, its function would be state-to-state. Furthermore, its annual assessment of the returns would only form a part of its tasks.

There are other options for assessment modalities. Little thought has been given to how CBMs might be assessed and analysed, and the subject deserves attention in its own right. States parties might also consider limiting access to the analyses to only states parties that have submitted returns for three consecutive years. Alternatively, the work might be completed on a regional basis. The principal aim of the assessment should be to engage states parties in dialogue about discrepancies between previous submissions and the current data, anomalies between other publicly available data and that reported under the CBM, or a lack of clarity in the submission. Open source information would be used to supplement the analysis because to ignore it or rule out its consideration would be counterproductive. Taken together these measures would enhance transparency in the CBMs process.

Practicalities

The practicalities of a CBM unit or expert group depend on the extent of states parties' willingness to conduct administrative, facilitating, review and assessment tasks. A decision by states parties would be required to establish an expert group. As is indicated above, the tasks undertaken would determine the make up and size of the group. If the task was administrative, it might involve only the BWC staff. If the task was facilitating, experts from one or two states parties and the BWC staff would probably suffice. A reviewing group—based first on national submissions of information and analysis—would require a greater number of experts to be involved, while an assessment group might be either regionally organized and limited to those states parties making a sufficient number of returns (as determined by the states parties), or drawn from all states parties.

As is the case now for the BWC staff, the CBM expert group would be funded by assessed contributions from the BWC states parties. Given that members of the expert group would almost certainly be from states parties, each state party could cover the cost of their own experts (the BWC staff costs are currently covered by existing funding). If necessary, those states parties most supportive of increased transparency might establish a voluntary fund to support regional outreach, training and advisory work by experts to assist those states parties legitimately struggling to meet their obligations.

The existence of the CBM unit would be both actual and virtual while it is conducting its assessment, review, or facilitating roles. The BWC staff would continue all the time, albeit that their focus would be on CBMs in between January and June. The experts would be active in their facilitating role between January and April and during assessment periods and then for a period of four or five weeks on circulation of the CBMs.

As is the case under the existing system of CBMs, nothing would preclude a state party from supplying more information than requested under the agreed information exchange. Moreover, because each state party is the owner

of its own CBMs, nothing precludes an individual state from publicly releasing its own information or information on aspects of treaty implementation not required by the CBMs. Any such national transparency initiative should be welcomed and encouraged by the other states parties.

Advantages

The advantages of the above mechanism are as follows:

- Different types of work for the CBM unit can be identified, ranging from administrative tasks to assessment. These options provide states parties with plenty of scope to design their own system;
- There is significant administrative and facilitative potential in the proposals where tasks can be assigned to BWC staff;
- Some basic measures—reminders at specific periods of time, notifications of receipt of the CBM submission, electronic access to the forms and electronic distribution to submitting states parties—are low cost but should prove to be effective in increasing the rate and quality of returns;
- The cost of the CBM unit is low: BWC staff are already in place should states parties decide to allocate administrative functions to them; the Depositaries can be asked to send out periodic notices of requirements to submit information and deadlines as part of their treaty administration work; and experts would be provided by and paid for by their own national governments;
- The CBM unit is not a permanent body;
- In the proposals there is significant potential for regional initiatives or multilateral co-operation by representatives of states parties;
- Basic, low cost measures have the potential to increase the rate and quality of participation and reporting; if such measures fail, then more fundamental problems with the CBMs will have been revealed that will require attention in 2011; and
- There is flexibility in the possibility that if states parties fail to agree to establish such a unit, it could be established outside the formal treaty structure. Many of the possibilities identified above could be undertaken on a national basis by civil society groups.

Disadvantages

The CBMs are a difficult topic. Not all states parties are interested in the CBMs, which could explain the lack of submissions, and there will be opposition to increasing the role and profile of the information exchange. In addition:

- CBMs are not legally binding and would remain politically binding;
- CBMs remain only a partial measure, unless or until states parties increase the amount and type of information requested;
- Any enhancement is unlikely to be able to deal with states parties intent on deliberately ignoring their obligations;
- There is a danger that the CBM unit or expert group might be perceived as a further attempt to institutionalize the BWC or return to the verification debate;
- Insistence on some kind of assessment or analysis could prevent administrative work, facilitation or review work being agreed;
- Disagreements on the way forward could compromise the acceptability of CBMs as they exist;
- Any results from assessments are likely to be patchy and could damage relations between states parties; and
- There may be concerns that improving the information exchange takes states parties further away from a verification and compliance agreement rather than closer to it.

A BW investigation and inspection mechanism

Under Article VI of the convention a state party may lodge a complaint with the UN Security Council if it finds any other state party is acting in breach of its obligations under the convention. Such a complaint to the Security Council would have to provide all the evidence available to substantiate it and formally request the Security Council to investigate the matter. The Security Council may then initiate an investigation—or it may decide not to—and each state party has undertaken to co-operate with any Security Council investigation. The Security Council is required to inform states parties of the outcome of any investigation.

This article on investigations is widely viewed as being the main compliance mechanism in the BWC. The focus of the treaty negotiators was compliance with the obligations related to development, production, stockpiling, acquisition, or retention of biological or toxin weapons, or the means of delivery for such weapons. This is certainly where states parties believe the compliance mechanisms need strengthening. From the studies conducted under VEREX to the negotiations on the BWC protocol, states parties have sought to agree on and elaborate two types of investigations: of alleged or suspected use of biological or toxin weapons (field investigations) and investigations relating to a breach of the production, development and stockpiling prohibitions of the convention (facility investigations). Between 1995 and 2001 there was some consideration of investigations relating to the proliferation of agents, toxins, weapons, equipment, or means of delivery—as specified under Article I—but these did not appear in the final drafts of the rolling text or the composite text of the Protocol.

The collapse of the Protocol negotiations has left states parties without a detailed investigation procedure for the convention. States parties, therefore, continue to rely on the Security Council to conduct investigations. The Security Council, in turn, has never developed procedures for the investigation of complaints lodged under the BWC. It has developed no mechanisms for the conduct of such investigations, has no trained investigation staff at its disposal, no equipment with which to supply any investigation team, no agreed procedure on how to determine whether a complaint is valid and worthy of further investigation, no explicit agreement on how to initiate an investigation,

and no procedures agreed with any state party on the conduct of an investigation. While the BWC protocol was not agreed, there was, and presumably there remains, widespread agreement on the types of issues an investigation procedure needs to contain. Based on views expressed and issues raised during the negotiations for a BWC protocol this would entail agreement on:

- Procedures for the initiation of an investigation:
 - * How to request an investigation and the information to be submitted;
 - * Acknowledgement of receipt of a request and consideration by the authorized investigation entity;
 - * Consideration of the investigation request and decision-making procedures for when, and how, to determine if an investigation is warranted; and
 - * Formal initiation and launching of an investigation.
- Investigation activities:
 - * Designation of investigation personnel;
 - * Training of investigation personnel;
 - * Agreement on equipment to be used during an investigation;
 - * Points of entry for investigation personnel; and
 - * Use of transport and aircraft for arrival at point of entry and to investigation area.
- The general principles of the investigation:
 - * The rights and responsibilities of the investigation team;
 - * The rights and responsibilities of the investigated entity;
 - * A timetable for access to the investigation area from initiation of the investigation;
 - * The measures permitted during the conduct of an investigation;
 - * The level of co-operation required by the investigation team from the investigated entity;
 - * The right to protect national security information or commercially confidential information;
 - * Alternative measures to demonstrate compliance with requests from the investigation team;
 - * The drafting and submission of the investigation report; and
 - * Administering the investigation.
- The conduct of the investigation:
 - * Agreeing approved investigation equipment;

- * Assigning the investigation team;
 - * The dispatch, arrival and departure of the investigation team;
 - * Communications issues;
 - * Orientation of the investigation team on-site;
 - * The size and designation of the investigation area;
 - * The mandate of the investigation;
 - * The duration of the investigation;
 - * Preparation of a situation report on arrival at the investigation area(s); and
 - * Extending the investigation area, team size, or duration of the investigation, should it become necessary.
- Measures to be employed by the investigation team:
 - * Identification of key equipment, munitions, and so on;
 - * Interviewing personnel and individuals;
 - * The conduct of visual observation;
 - * Disease/Intoxication-related examinations;
 - * Taking clinical and pathological samples;
 - * Access to medical records;
 - * Procedures for sampling, analysis and identification; and
 - * Collecting and examining background documentation.

The Security Council has not discussed how an investigation under the BWC would be conducted in relation to any of the above activities.

It is likely that the UN Secretary-General would be tasked to fulfil his mandate to investigate alleged, suspected, or actual use of chemical, biological or toxin weapons. This mechanism has its roots in the Cold War and the allegations at the end of the 1970s concerning chemical and toxin weapons use in Afghanistan, Kampuchea (Cambodia) and Laos. In 1980 a UN General Assembly resolution requested the Secretary-General to carry out an impartial investigation, with the assistance of qualified medical and technical experts, into reports of the alleged use of such weapons.⁶⁰ Following these investigations, UN General Assembly Resolution (UNGAR) 37/98 D of 13 December 1982⁶¹ requested the Secretary-General to ‘investigate, with the assistance of qualified experts, information that may be brought to his attention by any member state concerning activities that may constitute a violation of the Geneva Protocol or the relevant rules of

international law in order to ascertain the facts, and to report promptly the results of any such investigation to all member states and the General Assembly’.

To facilitate this, the General Assembly asked the Secretary-General to develop lists of experts who could undertake investigations and of laboratories that could undertake any testing of samples for the presence of agents, toxins, or chemicals. The procedures developed for the conduct of these investigations were tested during the Iran–Iraq War (1980–1988), and investigations confirmed the use of chemical weapons during that conflict. Notably, the Secretary-General did not cite the 1982 resolution as the source of his authority to carry out the first of these investigations.⁶² The Security Council implicitly recognized the Secretary-General’s mandate to carry out such investigations when it adopted UNSCR 620 on 26 August 1988⁶³ in which it ‘encourages’ the Secretary-General to carry out such investigations ‘promptly’ upon receiving allegations. UNGAR 42/37 C of 30 November 1987⁶⁴ asked the Secretary-General to develop further the technical guidelines and procedures for such investigations. The Secretary-General engaged six consultant experts (from Bulgaria, Egypt, France, the Soviet Union, Sweden and the US) to prepare a report, which was submitted on 11 August 1989.⁶⁵ This report was welcomed in UNGAR 44/115 B, adopted by consensus on 15 December 1989,⁶⁶ which also noted that the guidelines and procedures would have to be reviewed on the entry into force of the CWC. In total the Secretary-General has initiated investigations into alleged use in: Afghanistan, Kampuchea (Cambodia) and Laos (1981, 1982); Iran and Iraq (1984–1988); and Azerbaijan and Mozambique (1992). Although the investigation mechanism has not been used since 1992, the mechanism still exists.

Since the entry into force of the CWC, the 180 states parties to the CWC (as of 2 October 2006) have at their disposal specific and detailed mechanisms to investigate the use of chemical weapons under Part XI of the verification annex of the CWC. Furthermore, under paragraph 27 of Part XI of the verification annex, the resources of the OPCW are at the disposal of the Secretary-General should he require them to investigate alleged chemical weapons use relating to a non-state party to the CWC. This use of OPCW resources is restated in the formal UN-OPCW agreement approved by both the CWC states parties and the UN General Assembly. Chemical weapons use is, therefore, covered by existing mechanisms which should prove effective if required.

The situation in terms of biological weapons is far more worrying. Although a 1995 UN Security Council Presidential Statement on the proliferation of weapons of mass destruction stated that ‘appropriate measures will be taken . . . where international treaties provide for recourse to the Council when their provisions are violated’,⁶⁷ any investigation into the use of biological weapons, by a state party to the BWC or a non-state party, relies almost entirely on the mechanism available to the Secretary-General. The lack of an investigation mechanism under the BWC was acknowledged as a

weakness after the BWC protocol negotiations ended. Indeed, strengthening the ability of states to investigate alleged use of biological weapons was a central plank of the alternative US proposals for strengthening the BWC. On 1 November 2001 US President George W. Bush stated that an effective procedure for investigating suspicious outbreaks of disease or allegations of biological weapon use was now required and that his administration would propose that such a mechanism be established. The UK indicated in 2002 that strengthening the Secretary-General's mechanism should be considered.⁶⁸ At the Meeting of Experts of the BWC in 2004, which considered investigations into suspected use of biological and toxin weapons, Germany, South Africa, Sweden, the UK and others expressed support for updating the Secretary-General's mechanism.⁶⁹ Acting on their own, the 25 member states of the EU committed themselves to updating the list of experts and laboratories no later than December 2006.⁷⁰

Beyond the views of the states parties to the BWC, three UN reports recommended strengthening the investigation mechanism of the Secretary-General.⁷¹ In addition, the final report of the WMDC recommended that the biological weapons investigation powers of the Secretary-General should be enhanced.⁷²

More recently, the adoption of the *United Nations Global Counter-Terrorism Strategy* noted that member states 'also encourage the Secretary-General to update the roster of experts and laboratories, as well as the technical guidelines and procedures, available to him for the timely and efficient investigation of alleged use'.⁷³ The Secretary-General now has the authority to proceed with updating the mechanism on investigation of chemical, biological and toxin weapons according to his own timetable.

Updating and strengthening the Secretary-General's mechanism is one method of providing a more effective biological weapon-related investigation procedure in the future. Recognizing synergy between the BWC and the investigation mechanism of the Secretary-General, the Chairman of the 2004 meetings of BWC states parties proposed writing on behalf of states parties to ask the Secretary-General to review and consider updating the investigation mechanism, taking into consideration a number of issues identified by states parties. These include:

- Re-evaluating and updating the list of experts;
- Introducing confidentiality agreements for all personnel which prohibit communicating any matter related to an investigation with any person or institution not involved in the investigation unless authorized to do so by the Secretary-General;
- Consideration of the logistical and financial requirements for an investigation;
- Revising the information required to support a request for an investigation;
- Re-evaluating the guidelines and procedures relating to the victims of an alleged attack;

- Re-evaluating the procedures for sampling and analysis;
- The use of expert consultants whose composition should be specified to ensure they are representative, particularly geographically; and
- A requirement that the final report transmitted to the Secretary-General be made available to the receiving state and any other state involved, as well as being submitted to the UN Security Council.⁷⁴

States parties were divided on the issue, with some support for updating the mechanism but others expressing the view that the mechanism contains 'fundamental deficiencies [that] do not permit making it workable through a simple revision'.⁷⁵

Following the decision of the General Assembly to encourage the Secretary-General to update the mechanism, there is no need to go into detail about the issues that require consideration under the Secretary-General's mechanism in this report. Furthermore, the states parties to the BWC have no explicit remit to address the issue under the convention. It is sufficient to note that states parties to the BWC should strongly support the efforts of the Secretary-General in this task simply because, as things stand, they have no recourse to their own mechanism and the Security Council has not developed usable procedures for action under Article VI of the convention.

Beyond the Secretary-General's mechanism: inspections under the BWC?

While updating the Secretary-General's mechanism for investigation of alleged use of biological weapons would offer some relief to the lack of mechanisms under the BWC, the authority of the Secretary-General does not extend to issues related to producing, developing, or stockpiling biological or toxin weapons. It is in this area that states parties should consider developing and enacting guidelines for inspections in the future.

The idea of a discrete investigation mechanism for biological weapons was raised in early 2002 by the British government in its Green Paper.⁷⁶ The UK argued that improving the investigation capabilities of the international community could be achieved by either a free-standing agreement on investigations, or an agreement on investigations combined with other measures such as assistance and protection against biological weapon use. In the Green Paper the UK openly doubted that such a free-standing agreement was possible but it did make the 'establishment of an effective and legally binding process for investigation into suspected non-compliance with the convention, to include misuse of facilities, unusual outbreaks of disease believed to be connected to a violation of the convention, and alleged use of BW' one of its priorities.⁷⁷

Agreement on a discrete investigation mechanism has also been proposed by non-governmental observers. One proposal suggested an investigation of use mechanism based on the Secretary-General's procedures, and the creation by states parties of a protocol for challenge-type inspections of facilities suspected of involvement in the development, production and stockpiling of biological and toxin weapons.⁷⁸ There are political and practical problems associated with pursuing discrete inspections or investigation mechanisms. The political problems relate to accusations of cherry-picking aspects of the failed protocol, and the risk that this would open the door for others to put on the table their own preferences from the protocol. Any kind of mini-protocol based on the work undertaken between 1995 and 2001 is out of the question: that route would lead not only to failure, but also to wasting time and effort that could be better spent in other areas. The practical problems relate not only to the how, but also to the fact that the only states parties likely to agree to such a procedure are the like-minded ones that have in place extensive national implementation measures that are both enforced and relatively transparent. There is also the additional problem of developing the necessary support infrastructure required to give meaning to any mechanism intended to address the development, production and stockpiling prohibitions in the BWC.

One other option that has gained some support in non-governmental circles is the establishment of a Security Council unit covering all weapons of mass destruction, but with a focus on biological weapons and the means of their delivery because the IAEA and OPCW already provide expertise on nuclear and chemical weapons. A new unit or organization would provide the Secretary-General and the UN with the means to investigate violations of treaties on preventing the proliferation of weapons of mass destruction and, where possible, oversee, verify and advise on compliance issues.⁷⁹ A key factor in such calls is the desire to preserve and capitalize on the procedures, mechanisms, skills and experience of UNMOVIC and its predecessor, the United Nations Special Commission (UNSCOM), to 'extend the range of tools and options available to the international community to tackle the threat of weapons of mass destruction, including [from] non-state actors, as well as expand the frontiers of inspection, monitoring and verification'.⁸⁰

Recently, the WMDC proposed that a small subsidiary unit be established that could provide technical information and advice on issues related to weapons of mass destruction and, at the request of the Security Council or Secretary-General, 'organize ad hoc inspections and monitoring in the field, using a roster of well-trained inspectors that should be kept up-to-date'.⁸¹ In reality, given the existence of the OPCW, any UN body established based on these ideas will be implicitly, if not explicitly, skewed to biological weapon-related issues. With the envisaged unit undertaking other activities, such as the provision of technical information and advice, great care will be needed to ensure that the BWC is not pushed even further to the periphery of states parties' priorities—or circumvented.

In the light of the above, what is the best direction to take? In 2001 the US proposed an inspection provision under Article V of the BWC. Although this was not taken forward by the states parties, at the Sixth Review Conference, and in the intersessional period, states parties should give detailed further consideration to issues related to establishing a consultative meeting and how a future Formal Consultative Meeting might work in practice. Consideration of the fact-finding aspects of any concerns raised under the convention's Article V might not produce immediate results in 2006, but detailed consideration of the issues by states parties would certainly offer benefits in the event that such a mechanism was required in the future.⁸²

While accepting that alleged, suspected, or actual use of biological weapons will be passed to the UN Security Council or the Secretary-General for consideration and action, states parties should focus their efforts on issues related to the prohibitions on the development, production and stockpiling of biological weapons, as well as the prohibitions on transfers of agents, toxins, weapons, materials and the means of delivery for such weapons. The objective of states parties should be to reach agreement on a detailed, but flexible, consultation procedure for issues related to compliance with the obligations under Articles I and III of the convention. This could be achieved through the establishment of an expert group or as an identified topic of a future meeting of experts or meeting of states parties.

Proposed functions

- Expanding the agreements and additional understandings on the consultative meetings and Formal Consultative Meetings to include a discrete mechanism for issues related to Article I;
- Establishing guidelines for the initiation of consultation procedures relating to Article I;
- Identifying the type of information required to support any stated concern about activities relating to Article I;
- Outlining the procedures for convening a Formal Consultative Meeting on suspected non-compliance with Article I;
- Agreeing timelines for the conduct of consultations;
- Developing provision for the use of agreed experts and/or the good offices of international organizations to facilitate consultation procedures;
- Drafting the modalities for voluntary on-site assessments of facilities, sites, or laboratories, including:
 - * Development of a list of experts from states parties for on-site voluntary visits with the aim of continuously updating these lists;
 - * Agreement to also call on the registered experts under the Secretary-General's list of rostered experts for investigations of alleged use, where appropriate;

- * Development of on-site standard operational procedures;
 - * Identification of laboratories that may be called on to conduct sample analysis, to include toxins and pathogens;
 - * Training of experts listed as possible members of on-site teams; and
 - * Equipment required for on-site visits.
- Agreeing the modalities for making the information available to other states parties or the United Nations Security Council as appropriate;
 - Consideration of the lessons learned from UNSCOM, UNMOVIC and other appropriate mechanisms; and
 - Training and national capacity-building for identified experts, including for liaison with the FAO, Interpol, the OIE, the OPCW, the WHO, and rostered experts under the Secretary-General's mechanism.

Voluntary visits and other procedures have been proposed by states parties in various forms over the past 15 years. At this time, there is still no agreement on how voluntary visits or other detailed consultations on compliance would proceed under Article V of the convention. This issue is likely to require considerable thought and preparation and states parties should be urged to begin consideration of these issues as soon as possible.

Focusing on consultation provisions under Article V would also permit states parties to explore how the agreed additional understandings might be tailored to other areas; for example, consultations on issues arising from the CBMs.

Considering issues under Article V for inspections and other types of activity relating to compliance is not unconnected to the future consideration of the Secretary-General's mechanism on investigations of use. The synergies between the two issues are many, such as the identification of experts able to conduct investigations or inspections, the requirement for laboratories to analyse and test samples, the types of equipment required for the conduct of such on-site activities, the activities to be undertaken during on-site visits, inspections, or investigations, the training requirements of personnel to conduct investigations and inspections to the required standards, the rights and responsibilities of both the on-site team and the investigated entity, and the submission of reports to appropriate authorities. Given the current political context in the BWC, there are sufficient differences to warrant one type of mechanism in use under the Secretary-General and another type of mechanism for consultations and voluntary on-site activity relating to concerns about development, production and stockpiling. The relationship between the two mechanisms, however, should not be ignored.

Advantages

If a concern was raised under the consultation procedures relating to the development, production or stockpiling of biological weapons, states parties would have no guidelines or agreed procedures on which to fall back on. There is, however, a wealth of experience—such as in other agreements, the consideration of issues in the BWC by other expert groups, activities under the rubric of the United Nations, and counterterrorism procedures that have been developed over the past decade—that states parties could usefully consider in order to establish their own basic guidelines.

By considering these issues in a group, or meeting, of experts between 2007 and 2011 states parties would not be committing themselves to the establishment of a legally binding procedure in the future; they would, however, be preparing for the possibility that detailed consultations will be required in the future.

Disadvantages

The proposal offers no prospect of moving towards a legally binding mechanism for the inspection of facilities. The consultations also run the risk of replaying the debates that were held in the Ad Hoc Group. States parties would, of course, have to understand that in developing guidelines for consultation procedures as envisaged they have no institutional support to maintain any procedures. States parties would have to rely on themselves to keep any agreed procedures active and updated. Under the guidelines, because they would not have a mandatory element, a state party could still reject any consultations, thus preventing efforts by others to enhance transparency. The work, however, cannot occur in isolation—consideration of issues in other forums will be required, indicating substantial efforts by states parties to remain abreast of other relevant developments that are of value to their own consultation procedures.

The Sixth Review Conference and beyond

As is clear from the range of the proposals above, even if states parties were able to reach agreement, work will need to continue after the Sixth Review Conference.

States parties will need to continue meeting and working in a variety of forums between 2007 and 2011, including in meetings of states parties and meetings of experts on various issues. The scope of the known weaknesses in the BWC regime, the scale of activity required to address those weaknesses and the increasing concern about the potential threat posed by biological and toxin weapons warrant the development of a larger programme of work for the states parties between 2007 and 2011. The review conference in 2006 should be viewed as a 'pit stop' on the continuing evolution of the convention: a time when the states parties fulfil their Article XII obligation to review the operation of the convention to ensure its objectives and purpose are being realized. Where further work on effective implementation of the convention is required, states parties should not shy away from acknowledging this. Recognizing that work needs to be completed is a sign neither of the failure of the BWC, nor of deliberate and wilful non-compliance by any or all of its states parties. It is a recognition of the reality of treaty implementation.

To date the signs are hopeful that states parties have recognized the importance of some of the tasks that need to be undertaken. Over 40 states parties have indicated their support for a pragmatic programme of work that will deliver enhanced implementation of the convention. These states parties have identified, among other things: a further programme of work between the review conferences; a continued focus on national implementation; a concerted effort to increase the number of states parties ratifying or acceding to the BWC; meetings of states parties able to consider any issue that may arise between 2007 and 2011; further work to enhance the usefulness of the CBMs; and links to other areas of work, such as UNSCR 1540 (2004) and its Committee, or the G8 Global Partnership.

Based on these indications, and the proposals from VERTIC outlined above, it is recommended that states parties agree to divide their work into areas where agreement may be reached at the Sixth Review Conference and areas where further substantive consideration is required after 2006.

Proposals for the Review Conference

States parties should:

- Agree to establish national authorities and designate a national point of contact to work with the BWC staff and facilitate contact between states parties;
- Establish a budget for the employment of around four or five staff members under the BWC staff model in existence;
- Allocate to the BWC staff additional responsibilities to improve the administration of the convention and its meetings and to facilitate more effective implementation of the decisions of the states parties;
- Promote the existing BWC website with a view to developing the site as a portal for information related to all aspects of the BWC (the model should be the OPCW website);
- Agree the mandate for the creation of a number of subsidiary networks made up of experts appointed by states parties: convention implementation advisers, a scientific and technical advisory network, a legal advisory network, a CBM unit and an expert group to consider the consultation and co-operation mechanisms under Article V of the convention;
- Develop and agree a further programme of work to enhance implementation of the convention covering the following articles and issues:
 - * Article I—scientific and technological developments;
 - * Article III—implementation measures and liaison with the UN 1540 Committee;
 - * Article IV—national implementation measures, including the provision of assistance to states parties, and the development of agreed minimum criteria for national implementing measures;
 - * Article V—review the CBMs and create a CBM unit to improve aspects of the administration of information exchange, introduce a requirement to submit details of national legislation to a central BWC repository, and identify the minimum criteria for implementing measures to be attained by all states parties by the Seventh Review Conference;
 - * Article VI—a commitment to support the investigation mechanism of the Secretary-General, and an express commitment to provide the Secretary-General with the contact details of experts required as soon as possible and to facilitate implementation of any recommendations from the Secretary-General with regard to updating the mechanism. States parties should also commit themselves to provide support for, and to co-operate with, any

investigation launched by the Secretary-General on the alleged use of biological or toxin weapons, and to co-operate fully with any investigation initiated by the Security Council under Article VI of the BWC;

- * Article VII—consideration in detail of the support to be offered to any state party attacked with biological or toxin weapons, or threatened with an attack by such weapons;
- * Articles VIII and IX: closer co-operation with the OPCW where appropriate to maximize achievement of the objective of a total prohibition on the use, development, production, stockpiling, acquisition or transfer of chemical and biological weapons; an express commitment by all states parties to the BWC to ratify or accede to the CWC no later than December 2007; and a concerted effort to achieve the withdrawal of all the remaining reservations to the 1925 Geneva Protocol;
- * Article X—consideration of the ways in which states parties can facilitate the work of the FAO, the OIE and the WHO, particularly with the establishment of an effective and complete global disease surveillance network; development of means to enhance states parties' abilities to meet the standards for laboratory safety and security established by the WHO and other relevant guidelines, Good Manufacturing Practice and Good Laboratory Practice;
- * Article XIV—the establishment of an action plan on universality and its implementation between 2007 and 2011, with a view to having no less than 185 states parties to the BWC by 2010; and
- Agree to hold a further review conference no later than 2011.

These proposals may appear ambitious, but they all have their origins either in existing proposals before states parties or similar mechanisms that have been agreed by states parties previously or in comparable agreements. States parties are in a position to put their differences behind them and develop a new strategy to enhance the implementation of the convention. Decisions taken in 2006 will establish the foundations for future work.

Beyond the Sixth Review Conference

The task of the states parties at the review conference in 2006 is to agree to the establishment of various mechanisms that will be developed in the future. Between 2007 and 2011 states parties will need to put some flesh on the framework that VERTIC has developed. This will include the following:

- The creation of a national authorities network that is fully operational by September 2007, complete with a website containing information of use to states parties;

- The development of the modalities for the subsidiary networks—STAN, LAN and the convention implementation advisers—with a view to nominated experts being identified by April 2007 and updated each year thereafter;
- A commitment to review scientific and technological developments of relevance to the convention each year;
- A review of the national implementation measures submitted each year and of progress towards the establishment of agreed criteria for national implementation measures each year accompanied by a report on progress towards the objective of agreeing minimum requirements for implementation by 2011;
- The establishment of contacts with other international organizations as appropriate; and
- A complete and comprehensive review of the CBMs and their modalities, including the implementation of new CBMs as required. States parties should commit to a full review of the effectiveness of CBMs in 2011, with a recognition that if, after over 20 years of implementation, CBMs are still failing to provide the necessary transparency, they should be abandoned and replaced by a legally binding declaration system.

In common with the decisions identified for 2006, this programme of work is ambitious, but it is also achievable. It is in the power of the states parties to take the decisions necessary to meet their obligations.

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