

NATIONAL IMPLEMENTATION OF THE BIOLOGICAL WEAPONS CONVENTION

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I INTRODUCTION

The 1972 Biological Weapons Convention (BWC)¹ prohibits the development, production, stockpiling, acquisition, retention or transfer by any of its States Parties of biological weapons agents or toxins 'of types and in quantities that have no justification for prophylactic, protective, and other peaceful purposes', as well as weapons and means of delivery.² Article IV of the Convention requires each State Party to take legislative and administrative measures that are necessary to ensure that these obligations are met within its jurisdiction and control.

Although the Convention has been in force for just over 30 years, and despite the explicit obligation to implement its terms in domestic law, less than half of the BWC States Parties have the necessary legislative and administrative measures in place. The lack of adequate implementation became clear in discussions during the First BWC Experts' Meeting held in Geneva, 18–22 August 2003,³ and has been borne out in other studies undertaken recently. For example, the results of one survey suggested

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¹ *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, opened for signature 10 April 1972, 1015 UNTS 163 (entered into force 26 March 1975).

² While 'use' of biological weapons is not explicitly covered in the text of the convention, the States Parties to the BWC agreed, at the Fourth Review Conference in 1996, that the prohibition against use of biological weapons is implicitly covered in the convention: Fourth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, *Final Declaration*, BWC/CONF.IV/9 (Geneva, 25 November – 6 December 1996) Pt II, para 3, available at <<http://www.opbw.org>> ('Final Declaration of the Fourth RevCon'). For further detail, see Part III(C) below.

³ That meeting was convened in accordance with a decision taken by States Parties at the Fifth Review Conference: Fifth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, *Final Document*, BWC/CONF.V/17 (Geneva, 19 November – 7 December 2001, 11–22 November 2002) para 18(a)(i), available at <<http://www.opbw.org>> ('Final Document of the Fifth RevCon').

that only 43 per cent of States Parties had national implementation measures in force. The figure was even lower (32 per cent) when Asia as a region was considered.⁴

It is clear from the Convention, particularly Article IV, that national implementation is obligatory for all States Parties.⁵ At the outset, it is perhaps useful to emphasise the importance of BWC national implementation. In particular, unless a State Party has appropriate criminal legislation that details offences and establishes penalties for activities prohibited by the BWC (ie penal sanctions), that State Party is vulnerable to a prohibited activity being carried out within its territory, without being able to prosecute and punish offenders.

However, there is a lack of specific guidance in the BWC text as to how States Parties should meet their national implementation obligations. There are a number of choices of approach available to States Parties. These choices are best seen as lying within a spectrum. At one end of the spectrum, a State Party might choose to implement a dedicated, stand-alone, comprehensive legislative and administrative system. Generally speaking however, there would be some inter-linking with existing law and systems. At the very least, for example, even stand-alone criminal or penal legislation would usually fit within the existing criminal justice procedures. At the other end of the spectrum, a State Party may choose to simply amend existing laws and processes. For example, regulations or legislation dealing with chemical weapons and their precursors or the Convention on Biological Diversity⁶ might be adapted to accommodate the obligations under the BWC.

There are a number of factors that might be considered in deciding where within the spectrum a particular state may wish to approach national implementation. One factor to consider is whether, and if so what, existing mechanisms and processes are in place for other comparable issues — such as the Chemical Weapons Convention,⁷ or the Convention on Biological Diversity or national legislation/oversight of other biological activities, such as genetic modification. If such processes are already in place, it may be the most efficient option to adapt them further. Second, in the same way, an assessment of existing laws and regulations may reveal areas which can be modified to satisfy the BWC national implementation obligations. Third, the extent of research and domestic industry in the biological field within the State Party will give an indication of the resources required to oversee compliance with the Convention's obligations and this may determine whether there should be a dedicated agency to

⁴ Angela Woodward, *Time to Lay Down the Law: National Legislation to Enforce the BWC* (2003) available at <<http://www.vertic.org>>.

⁵ Article IV of the BWC states:

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

Article IV is discussed in detail below Part III.

⁶ *Convention on Biological Diversity*, opened for signature 5 June 1992, 1760 UNTS 142 (entered into force 29 December 1993).

⁷ *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction*, opened for signature 13 January 1993, 1974 UNTS 45 (entered into force 29 April 1997).

oversee national implementation. If there is limited research or industry in the biological sciences and biotechnology, it may seem less useful to have a dedicated agency dealing with implementation and compliance issues. If, on the other hand, the State Party in question has a significant biological sector, it may be more appropriate to devote additional resources. Finally, there may be government policy favouring a particular approach.

In making these preliminary choices and in embarking on the actual project of national implementation, there are a number of valuable resources available to States Parties, both in terms of discussion points and comparable examples that might be considered.⁸ The experience of the Chemical Weapons Convention national implementation program (and associated ‘Action Plan’)⁹ may also be of assistance. A number of model legislation packages have been prepared to facilitate the development and enactment of domestic legislation for States Parties to various arms control and disarmament treaties.¹⁰ Similar initiatives have been launched for the BWC.¹¹

Indeed, when we first commenced this project, our intention was to present our work in the form of a model legislation package. However, as the project progressed and we came to study the detail of the various issues arising, a number of factors became apparent. For example, there is significant potential for overlap with existing legislation and regulations that may be relevant to the BWC and there are a number of government agencies already responsible for the regulation of relevant biological activities. In the light of this understanding, we became more inclined to the view that rather than work on a ‘model’, we ought to adopt a flexible approach and instead develop ‘Model Drafting Elements’ covering the various BWC obligations and prohibitions. In other words, in our view, the presentation of a blueprint, or a model law, for the implementation of domestic measures required under the BWC may not be the most useful way ahead as the most appropriate approach for a particular State Party will depend so much on the constitutional, legal and administrative structures already existing within that State Party. We encourage all BWC States Parties to review their existing BWC-related national legislation for ‘gaps’. If any gaps are identified, there are three options. BWC States Parties could use relevant Model Drafting Elements to either: develop new legislation; amend existing legislation; or add regulations to supplement existing legislation.

The aim of the present paper, as the first step in this larger project, is to provide a short, accessible guide to and explanation of the fundamental national implementation

⁸ See, eg, Verification Research, Training and Information Centre (VERTIC) website, at <<http://www.vertic.org>>; Biological and Toxin Weapons Convention website, at <<http://www.opbw.org>>.

⁹ See, eg, Scott Spence, *Achieving Effective Action on Universality and National Implementation: The CWC Experience* (Strengthening the Biological Weapons Convention, Review Conference Paper No 13, April 2005) available at <<http://www.brad.ac.uk/acad/sbtwc>>.

¹⁰ In the context of chemical weapons, see, eg, Australian Working Paper, *Illustrative Model Legislation for the Incorporation of the Chemical Weapons Convention into Domestic Law*, PC-IV/A/WP.10 (Preparatory Commission for the Organisation for the Prohibition of Chemical Weapons, 28 September 1993).

¹¹ See, eg, Woodward, *Time to Lay Down the Law*, above n 4. In addition, VERTIC, in collaboration with the International Committee for the Red Cross (ICRC) have been preparing a model law to assist States Parties in implementing the BWC: VERTIC and ICRC, *A Model Law: The Biological and Toxin Weapons Crime Act* (2005) available at <<http://www.vertic.org>>.

obligations of States Parties to the Biological Weapons Convention. Thus, Part II of this paper explains in detail why national implementation is required both from legal and practical perspectives. The following Parts (Parts III to VIII) consider in turn the different implementation obligations arising from the Convention: criminalisation (Article I); disarmament (Article II); obligations to provide information under the Confidence Building Measures agreed to at the Third Review Conference in 1991;¹² provision of information pursuant to Articles V and VI(2) respectively; and finally, the provisions relating to transfers under Article III. Part IX then provides an outline of the Australian approach to implementing legislation to illustrate how one State Party has approached its BWC obligations using a combination of dedicated legislation — the *Crimes (Biological Weapons) Act 1976* — as well as amending existing legislation and regulations (import/export controls), and developing new legislation to cover a range of obligations with respect to Weapons of Mass Destruction (WMD), including some related to the BWC (ie the *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*). It should be stressed that the Australian legislation is used here as one (hopefully useful) example, not to suggest it as a model.

II THE NEED FOR NATIONAL IMPLEMENTATION

National implementation has concerned the States Parties to the BWC from the First Review Conference, but it was during the reconvened Fifth Review Conference in 2002 that the issue of national implementation gained real momentum.¹³ In developing their three-year program of work, the States Parties agreed, for 2003, to discuss and develop common understandings and promote effective action on national measures including enactment of penal legislation. Pursuant to that decision, there was a Meeting of Experts in August 2003 to prepare for a Meeting of States Parties held in November 2003. In the course of those meetings, many States Parties made statements as to the status of their national implementation, which have served to highlight the legal and practical importance of domestic implementation.¹⁴ These legal and practical reasons for domestic implementation will be discussed in this Part. Before turning to that, however, it is useful to quickly review the relationship between domestic law and international law more generally.

¹² Third Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, *Final Declaration*, BWC/CONF.III/23 (Geneva, 9–27 September 1991) Article V, available at <<http://www.opbw.org>> ('Final Declaration of the Third RevCon').

¹³ First Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, *Final Declaration*, BWC/CONF.I/10 (Geneva, 3–21 March 1980) Article IV ('Final Declaration of the First RevCon'); Second Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, Geneva, *Final Declaration*, BWC/CONF.II/13/1 (18–26 September 1986) 4–5 ('Final Declaration of the Second RevCon'); Final Declaration of the Third RevCon, above n 12, 12–13; Final Document of the Fourth RevCon, above n 2, 17–18; Final Document of the Fifth RevCon, above n 3, 3–4, each available at <<http://www.opbw.org>>.

¹⁴ *Report of the Meeting of the States Parties, Geneva, 10–14 November 2003*, BWC/MSP/2003/4 (Vol I) (26 November 2003) reproduced in Annex 4 to this volume.

A *Relationship between Domestic Law and International Law*

Different states have varying approaches to the relationship between international law and domestic law. Some states, particularly those from the common law tradition, hold to the position that international law does not become part of the domestic law of the country — at least in the sense of creating enforceable rights or obligations — unless and until Parliament enacts implementing legislation to give effect to the international rules. In other words, the international obligation has no force in domestic law absent any domestic legislation. Other states, particularly those with a civil law tradition, do not require implementing legislation to make treaty obligations part of their domestic law. Usually, in such systems, once Parliament has given its approval for the state to be bound as a State Party to the particular treaty, that treaty automatically becomes part of the law of the country. In reality, most states fall somewhere between these two absolute positions.¹⁵

From the perspective of international law there is no ‘right way’ for states to ensure domestic implementation of their international obligations. International law leaves it entirely to the discretion of states to determine their own approach; to satisfy their own constitutional or legislative requirements; to undertake whatever domestic process they deem fit. International law is solely concerned with the domestic implementation of international legal obligations and not the process by which that compliance is satisfied — with function and not with form.

B *The Legal Obligation to Implement the Biological Weapons Convention*

Article IV of the Convention states that:

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

Thus, reflecting the general position of international law, the BWC defers to a state’s own domestic approach to the implementation of international legal obligations by obligating the State Party to take necessary measures ‘according to its own constitutional processes’. Despite this, it is still very clear that the international obligations must be given effect in the domestic jurisdiction. Given the ‘silences’ as to process and as to penalties, clearly this provision of the Convention cannot be ‘self-executing’ — it has no content other than obligating States Parties to give effect to the obligation. Consequently, even in those states where treaty obligations automatically become part of the domestic law, there will still need to be supplementary domestic criminal law to give effect to this provision. In those states where treaty provisions only become part of domestic law once national legislation has been enacted to give effect to those obligations, it is obvious that new legislation will be required to give effect to Article IV.

¹⁵ For a recent discussion of the spectrum of approaches and the problems which can arise in application, see Eileen Denza, ‘The Relationship between International and National Law’ in Malcolm Evans (ed), *International Law* (2003) 415–42.

An important point worth noting at this stage is that despite the lack of an international verification system to verify compliance with the BWC, the legal (and practical) reasons remain as to why national implementation measures are required.¹⁶

C *Practical Reasons to Implement the Convention Domestically*

Perhaps the most important practical reason why States Parties will find it necessary to implement the BWC in domestic law lies with the dual-use nature of biological agents, equipment and technology. This means that while the Convention only imposes international obligations on States Parties, for any State Party to ensure that it can honour those obligations, it will need to ensure that it can control the activities of all nationals, including private actors. Thus, the international obligations will need to be translated into domestic laws that reach those in the private sector dealing with the biological agents, equipment and technology for peaceful purposes. For example, Article III states:

Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in Article I of this Convention.¹⁷

It is, of course, impossible for a state to ensure control without some kind of domestic regulation.¹⁸ Similarly, Articles V and VI(2) place obligations on States Parties to consult and cooperate with the other States Parties to the Convention and with the Security Council. Thus, States Parties are implicitly required to ensure, in the event of a problem arising, that they would be able to access and confirm the accuracy of information about an activity being conducted, or allegedly being conducted, within their jurisdiction. It will not be possible for a State Party to provide information to another State Party or to the Security Council unless it has the authority and power to obtain that information, and possibly confirm that information, domestically. Finally, the Confidence Building Measures agreed to by States Parties at successive Review Conferences will involve some domestic regulation.¹⁹

¹⁶ Indeed, one might argue that the absence of an international verification system makes the domestic implementation more, not less, important.

¹⁷ Article I of the BWC states:

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

- (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

¹⁸ For a detailed discussion of Article III, see below Part VII.

¹⁹ For a detailed discussion, see below Part V.

III PENAL LEGISLATION

As outlined above, all States Parties to the BWC are obligated, pursuant to Article IV of the Convention, to criminalise violations of the Convention and to ensure that any violators can be prosecuted, tried and convicted. The Convention, however, is silent on the precise mechanism for doing that, as well as on penalties that should be applied in the event of a conviction for any such violation. There are several issues States Parties will need to consider.

A *Article IV in Relation to Existing Criminal Law*

Perhaps the first issue States Parties will need to consider in relation to criminalising violations of the BWC will be where to place implementing legislation in relation to the existing criminal law of the state. Some States Parties might choose to amend some existing criminal legislation — particularly if that state has a criminal code for all existing offences, or at least for all those existing offences of national significance. In such circumstances the state might choose to add a new part to the code or existing legislation, which will introduce new offences that constitute violations of the BWC into the existing criminal law.

Other States Parties may well choose to enact legislation dealing exclusively with new offences that constitute violations of the BWC — a ‘Biological Weapons Convention Crimes Act’ or some similar title. This is the approach Australia chose to adopt with the enactment of the *Crimes (Biological Weapons) Act 1976*. Interestingly, since 1995 and the enactment of the federal *Criminal Code Act 1995*, the Australian Government has chosen to incorporate all new federal crimes into this Code rather than incorporating them into separate Acts. Hypothetically, if Australia were to ratify the Biological Weapons Convention now (rather than in the 1970s) the Australian Government would presumably amend the *Criminal Code Act 1995* by adding new provisions to criminalise violations of the BWC. Neither option is right or wrong — it is entirely up to each State Party to choose the approach that suits it best.²⁰

B *Defining ‘Biological Weapons’*

Article IV obligates States Parties to take the 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’. Article I contains a two-fold prohibition.²¹ The first element of the prohibition in Article I is a purposive prohibition — paragraph (1) does not prohibit biological agents or toxins as such, but only those ‘of types and quantities that have no justification for prophylactic, protective or other peaceful uses’. This particular aspect of the prohibition in Article I amounts to a prohibition based on purpose or intent rather than a prohibition on substances themselves.

The second element of Article I(2) prohibits particular weapons, items of equipment or means of delivery which are designed to use biological agents or toxins

²⁰ Cf the provisions which were enacted as part of the New Zealand Act which created the New Zealand Nuclear Free Zone: *New Zealand Nuclear Free Zone, Disarmament, and Arms Control Act 1987*.

²¹ See above n 17.

for hostile purposes in armed conflict. To the extent that a particular item of military equipment can be used to deliver conventional weapons as well as biological weapons, such equipment would not be prohibited per se. That equipment would only become unlawful if used for biological weapons. However, to the extent that some items of military equipment are specifically designed for use with biological weapons, any such equipment is prohibited pursuant to Article I(2) of the BWC.

Taking this into account, in implementing Article IV obligations into domestic criminal law, each State Party must be careful to penalise the specifically prohibited purpose for the biological agent or toxin rather than the development, production, stockpiling, acquisition or retention of the substances themselves. The key element in Article I of the BWC is the lack of justification by way of peaceful uses or applications of the substances, and there is both a qualitative (type) and a quantitative (quantity) indicator in order to determine whether a violation of the BWC has occurred.

It will be up to States Parties themselves to select wording for the written articulation of the domestic offence, but it should be obvious from this discussion that the precise choice of words has profound significance for the faithful implementation of the Article IV (and Article I) obligation. Section 8 of Australia's *Crimes (Biological Weapons) Act 1976* demonstrates one possible approach to faithful implementation of the BWC prohibition. Paragraph (1) of that section replicates the language of Article I of the BWC verbatim as follows:

- (1) It is unlawful to develop, produce, stockpile or otherwise acquire or retain:
 - (a) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; or
 - (b) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes in armed conflict.

Other States Parties may well choose to adopt a different approach to the domestic criminalisation of BWC prohibitions. To reiterate, the key issue here is consistency with the Convention prohibition on purpose rather than on agents or toxins, materials or equipment.

C *Prohibited Actions*

Article IV of the BWC obligates States Parties to implement the comprehensive prohibition in Article I of the Convention — that is, to prohibit the development, production, stockpiling, acquisition or retention of biological weapons. Any implementing legislation will need to replicate the scope of the Convention prohibition.

Comments have often been made to the effect that Articles I and IV of the BWC do not expressly list 'use' of biological weapons in the list of prohibited activities, to the effect that the BWC does not constitute a prohibition on use. Any such suggestion is fallacious. On the face of the Convention terms alone, it is impossible to comply with the explicitly prohibited acts (particularly acquisition and retention of biological weapons) while simultaneously using biological weapons. However, even if there is any lingering ambiguity as to the legality of the use of biological weapons pursuant to BWC prohibitions, States Parties clarified their understanding of the matter at the

Fourth Review Conference of the BWC in 1996.²² States Parties explicitly declared their understanding that the scope of the prohibition on the BWC extended to include use of biological weapons as well as all the actions explicitly referred to in Articles I and IV of the Convention. Thus, any state contemplating penal legislation to implement the BWC into domestic law should include ‘use’ of biological weapons among the list of prohibited actions in order to remove any uncertainty as to the list of criminal offences in relation to biological weapons.²³

In addition to criminalising those activities already listed in the BWC, States Parties will also need to make provision for alternative bases of individual criminal liability including, for example, ordering, soliciting or inducing, aiding and abetting, complicity in and attempt to commit any of the prohibited actions already referred to above. Those States Parties choosing to place any implementing legislation for the BWC in the context of an existing criminal code or other criminal legislation may well apply an existing general part of the legislation which covers issues such as alternative bases of criminal responsibility. It may also be possible for those States Parties choosing to enact special legislation for the BWC to nevertheless refer to some general criminal law principles to cover alternative bases of criminal responsibility.²⁴ If neither approach is adopted, States Parties will need to turn their attention to this issue — presumably in the drafting of the specific BWC Act that is to be adopted.

The BWC is silent on the need for States Parties to penalise any failure on the part of individuals or corporations to cooperate with governmental authorities in the implementation of the BWC and, particularly, in the details associated with the enforcement of implementing legislation. States Parties may choose to include a penal offence for any such failure to cooperate — perhaps distinguishing between inadvertent oversight and wilful obstruction on the basis of severity of penalty.

D *Extent of Jurisdiction*

Article IV of the BWC obligates States Parties to penalise any violations of the Convention occurring on the sovereign physical territory of the state and on any other physical territory otherwise under the control of state authorities. The exercise of national jurisdiction over physical territory is a fundamental expression of state sovereignty and is an obvious starting point for the application of the state’s criminal law. However, a minimalist approach to the implementation of the BWC on the question of jurisdictional extent may result in a frustrating failure to enforce penal

²² See Final Document of the Fourth RevCon, above n 2.

²³ In addition, the prohibition on the use of biological weapons in war still constitutes a binding treaty prohibition on all States Parties: *Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare*, opened for signature 17 June 1925, 94 LNTS 65 (entered into force 8 February 1928) (‘1925 Geneva Protocol’). Many commentators also argue that the 1925 Geneva Protocol prohibition has now become a rule of customary international law that is binding on both States Parties to the Protocol and non-States Parties alike. See, eg, Marie Henckaerts and Louise Doswald-Beck (eds), *Customary International Humanitarian Law* (2005) 256–8, and supporting practice detailed at 1607–57.

²⁴ See, eg, s 6A of the *Australian Crimes (Biological Weapons) Act 1976* which applies the *Criminal Code Act 1995* ch 2 (which is the general part of the Code incorporating issues including alternative bases of individual criminal responsibility) to violations of the BWC.

sanctions against those who violate the BWC. It is conceivable, for example, that a national of a State Party to the BWC who engages in a violation of the Convention either (i) on the physical territory of a non-State Party; or (ii) on the physical territory of a State Party which is yet to enact relevant penal legislation, could escape individual criminal responsibility.

On the basis of a desire to avoid scenarios such as these and to broaden the extent of national penal jurisdiction in the hope of increasing the possibilities for effective national enforcement of the BWC, States Parties agreed at the Third Review Conference in 1991 to invite States Parties to consider extending the scope of their domestic penal legislation. In the Final Declaration of the Third Review Conference in relation to Article IV of the BWC, States Parties were invited to:²⁵

consider, if constitutionally possible and in conformity with international law, the application of such measures to actions taken anywhere by natural persons possessing its nationality.

International law already recognises the extension of national jurisdiction beyond the physical territory of a state to acts committed by a state's own nationals anywhere in the world. The extraterritorial jurisdiction of states based on the nationality of their citizens is required of all States Parties to the Chemical Weapons Convention, for example, and it is common for states to extend penal legislation on the same basis for other domestic crimes. When contemplating the scope of penal legislation to implement the BWC, States Parties are urged to consider accepting the invitation issued at the Third Review Conference and to adopt this broader approach to the scope of jurisdiction.²⁶

E *Sanctions and Penalties*

The BWC is also silent on the issue of penalties or sanctions for violations of the Convention by nationals/individuals. States Parties are free to set their own sanctions in the context of the enactment of domestic penal legislation. States Parties may choose to consider the penal sanctions which may already be in place for violations of the Chemical Weapons Convention or the Nuclear Non-Proliferation Treaty.²⁷ States Parties may also look to existing counter-terrorism legislation for guidance on the severity of penalties. Ultimately, the key issue for States Parties will be to set penalties commensurate with those already existing for crimes of comparable severity. Most States Parties will obviously provide for heavy prison sentences for individuals, and heavy fines (and perhaps more serious consequences including withdrawal of licence to trade, etc) for corporations found to have committed offences under the legislation.

²⁵ Final Declaration of the Third RevCon, above n 12, Article IV.

²⁶ Section 5 of Australia's implementing legislation, the *Crimes (Biological Weapons) Act 1976*, adopts this broader extraterritorial approach to scope by extending the Act's application to any acts 'done or omitted to be done by Australian citizens outside Australia ...'.

²⁷ *Treaty on the Non-Proliferation of Nuclear Weapons*, opened for signature 1 July 1968, 729 UNTS 161 (entered into force 5 March 1970). However, sanctions are not always comparable. For example, in New Zealand, s 14 of the *New Zealand Nuclear Free Zone, Disarmament and Arms Control Act 1987* imposes a sanction of a maximum of 10 years imprisonment for violating the prohibition on use of biological weapons; in 1996, s 6 of the *Chemical Weapons (Prohibition) Act* imposed a maximum sentence of life imprisonment for the use of a chemical weapon.

IV DISARMAMENT OBLIGATIONS

Under Article II of the BWC, a State Party that possesses any biological weapons, as defined by Article I, is under an obligation to ensure the destruction or diversion to peaceful purposes of such materials within nine months of the Convention's entry into force.²⁸ If a State Party possesses any biological weapons, then there may need to be legislation passed to ensure that the obligations under Article II are fully met. However, most States Parties would not be expected to require legislation under Article II.

V OBLIGATIONS UNDER CONFIDENCE BUILDING MEASURES

Much has been made of the lack of an international system to verify compliance with the terms of the BWC. It is true that compared with the detailed verification system of the Chemical Weapons Convention, for example, the BWC's system is minimal — there are only two short provisions available to States Parties to address compliance concerns, being Articles V and VI(2).²⁹

However, States Parties have agreed to a series of Confidence Building Measures (CBMs) to encourage transparency and so reduce the likelihood of compliance concerns arising among States Parties. These in turn will reduce the likelihood of States Parties needing to pursue Articles V and VI(2).

CBMs have developed and evolved over time. The Final Declaration of the First Review Conference encouraged States Parties to submit voluntary declarations providing information on past possession of items relevant to the BWC and/or efforts to destroy or divert those items to peaceful purposes.³⁰ The Final Declaration went on to urge States Parties that had not yet done so to take the necessary measures to implement Article IV and, for those who had, to make available the appropriate texts to the United Nations Centre for Disarmament, for the purposes of consultation.³¹ These minimal provisions were expanded on in the Final Declaration of the Second Review Conference in which States Parties agreed to the following measures, the first two of which will almost certainly involve domestic regulation or legislation:³²

- 1 Exchange of data, including name, location, scope and general description of activities, on research centres and laboratories that meet very high national or international safety standards established for handling, for permitted purposes, biological materials that pose a high individual and community risk or specialise in permitted biological activities directly related to the Convention.

²⁸ Article II of the BWC states:

Each State Party to this Convention undertakes to destroy, or to divert to peaceful purposes, as soon as possible but not later than nine months after the entry into force of the Convention, all agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, which are in its possession or under its jurisdiction or control. In implementing the provisions of this Article all necessary safety precautions shall be observed to protect populations and the environment.

²⁹ Articles V and VI(2). These Articles are discussed in more detail below in Part VI.

³⁰ Final Declaration of the First RevCon, above n 13, Article II.

³¹ *Ibid* Article IV.

³² Final Declaration of the Second RevCon, above n 13, 6.

- 2 Exchange of information on all outbreaks of infectious disease and similar occurrences caused by toxins that seem to deviate from the normal pattern as regards type, development, place, or time of occurrence. If possible, the information provided would include, as soon as it is available, data on the type of disease, approximate area affected, and number of cases.
- 3 Encouragement of publication of results of biological research directly related to the Convention, in scientific journals generally available to States Parties, as well as promotion of use for permitted purposes of knowledge gained in this research.
- 4 Active promotion of contacts between scientists engaged in biological research directly related to the Convention, including exchanges for joint research on a mutual agreed basis.

At the Third Review Conference, in 1991, further CBMs were elaborated. Thus, the CBMs agreed to following this Review Conference were for States Parties to:³³

- exchange data on research centres;
- exchange data on bio-defence programs;
- provide information on outbreaks of reportable infectious disease;
- provide information on unusual outbreaks of infectious disease;
- publish scientific results;
- promote contacts between scientists;
- provide declarations on legislation and regulations;
- provide declarations on past offensive or defensive biological weapons programs; and
- provide declarations on vaccine production facilities.

It is clear then that most, if not all, of the CBMs will involve some domestic regulation or control. In particular, many of the CBMs involve the collection and transmission of data and information, and it will therefore be necessary for States Parties to ensure that they have the power to obtain the information domestically.³⁴ The four different aspects to this obligation are set out in the following paragraphs.

A Power to Obtain Information

It will be necessary to devise a system for obtaining the required information in a timely fashion from not only the various state sectors affected by the activities, but also industry and research institutes. Clearly this will be necessary where those affected users or producers are non-state, or private, actors. It may also be necessary, depending on the constitutional structures, where those affected are agencies or branches of the government itself, to ensure that the central agency has legal access to the information which it will need to comply with its obligations. It will usually be a

³³ See Dr Bob Mathews, 'Outcomes of Biological Weapons Convention Review Conferences' in Chapter II of this volume.

³⁴ It is understood that many States Parties currently obtain the information that is required for the CBM returns on a voluntary basis. However, there would be clear benefits (for example, in terms of accuracy of information and timely submission) if a State Party has legislative authority to obtain, transmit and protect the necessary information, as discussed in Part V(D) below. An additional benefit would be the improvement of a State Party's ability to provide information to address any compliance queries or concerns that arise under Article V consultations regarding CBMs: see Part VI below.

good idea to set time limits for provision of that information, for example, by a particular date each year. States Parties may also wish to consider including in the legislation some sanctions for non-compliance — this might include a monetary fine or, in the case of a licensed entity, filing of the information could be a pre-requisite to an operating licence being issued or renewed.

B *Empower Transmission of Information*

The state agency in question will not only need the power to obtain information, but may, in some legal systems, need legislative authority to transmit that information outside of the agency and possibly outside of the state.

C *Protect Information*

It has been the experience of other regimes that the cooperation of industry and the scientific sectors are essential. Where industry is a stakeholder — as in the case of the Chemical Weapons Convention — the private sector will need to be assured that their intellectual property investment is being protected. It is a legitimate concern of all states to protect the welfare of their scientific and industrial sectors.

D *Domestic Confirmation of Information Received*

Another issue to consider is whether authority ought to be given to the relevant government officials to visit and obtain the necessary information from the relevant facilities — in other words, an internal checking system. Although at present, such a provision is not required by the BWC or the CBMs, the monitoring of CBM information and the consultation process (if it ever occurs) would require such a provision.³⁵ While there is no specific Convention obligation to do this, it does seem like a logical approach if a State Party wants to be absolutely sure that the information being transmitted internationally is accurate.

In devising a system whereby the central authorities are able to obtain the necessary information from state and private entities, State Parties are advised to draw on experiences from other systems. For example, if the State Party in question is also a State Party to the Chemical Weapons Convention, that Convention's system may be the most comprehensive and ideally suited to incorporate the CBM requirements. Alternatively, or additionally, domestic structures dealing with the Convention on Biological Diversity may provide some assistance or guidance. There are a number of other possible starting points: routine annual reports from biotechnology, pharmaceutical or agricultural industries. The key to success will be that the system is resource effective, using existing structures and systems where possible or appropriate.

³⁵ A key issue here is that while the information provided in the CBM return is available to all other States Parties (and made publicly available on websites by a number of States Parties), additional and more sensitive information may be required by a State Party if it is requested by another State Party to clarify a concern about its CBM return (for example, under Article V consultations).

VI COOPERATION OBLIGATIONS

Article V of the BWC states:

The States Parties to this Convention undertake to consult one another and to cooperate in solving any problems which may arise in relation to the objective of, or in the application of the provisions of, the Convention. Consultation and Cooperation pursuant to this Article may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter.³⁶

Article VI(2) of the BWC states:

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

In the 30 years of the Convention's life, States Parties have not used Article VI to resolve any compliance concerns, and Article V has rarely been invoked.³⁷ Nonetheless, it is critical to ensure that, in the event of any questions being raised through these consultation mechanisms, a State Party is able to gather, assess and provide information to address any compliance queries or concerns. A State Party that is fulfilling its obligations under the CBMs will already have such systems in place.³⁸ If that is the case, these Articles do not impose any additional national implementation tasks.

VII TRANSFERS

Article III of the BWC states:

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

Thus, Article III raises some interesting challenges to legislators. How does a State Party legislate to prohibit 'transfer to any recipient whatsoever, directly or

³⁶ The Third Review Conference elaborated procedures for the multilateral consultative mechanism, and in particular, specified that the request for clarification should be addressed to one or more of the three depositaries, which would immediately inform all States Parties and convene a procedural meeting within 30 days, and a formal consultative meeting within 60 days: see Final Declaration of the Third RevCon, above n 12, Article V.

³⁷ For example, the multilateral consultative mechanism was first invoked in 1997 to address an allegation by Cuba that a United States government aircraft had deliberately released a crop destroying insect (*Thrips palmi*) over Cuba in an attempt to damage its agricultural sector. See BioWeapons Prevention Project, *Bioweapons Report* (2004) 37–9, available at <<http://www.bwpp.org>>; Jenni Rissanen, *Issue Brief: The Biological Weapons Convention* (2003) Center for Nonproliferation Studies (CNS), Monterey Institute of International Studies, available at <http://nti.org/e_research/e3_28a.html>.

³⁸ See Part V above.

indirectly'? What does this mean in practice? This issue was considered at the Fourth Review Conference in 1996. In particular, with reference to Article III, the Final Declaration of the Fourth Review Conference states:

The Conference affirms that Article III is sufficiently comprehensive to cover any recipient whatsoever at international, national or sub-national levels. ... In the development of implementation of Article III, the Conference notes that States Parties should also consider ways and means to ensure that individuals or sub-national groups are effectively prevented from acquiring, through transfers, biological agents and toxins for other than peaceful purposes.³⁹

This understanding is also reflected in the review of Article IV. In particular, with respect to Article IV, the Final Declaration of the Fourth Review Conference states:

The Conference reaffirms the importance of Article IV. ... The States Parties recognise the need to ensure, through the review and/or adoption of national measures, the effective fulfilment of their obligations under the Convention in order, *inter alia*, to exclude the use of biological and toxin weapons in terrorist or criminal activity.⁴⁰

And how does Article III cope with the dual-use dilemma in biology? With respect to the types of agents, toxins, weapons, equipment or means of delivery covered by these transfer prohibitions, Article III refers to the General Purpose Definition contained in Article I, in particular:

- (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; and
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

So the question is how does a State Party develop and enact effective legislation to ensure that it does not allow any of its citizens to transfer to any recipient, including a 'rogue state' or terrorist group, any biological materials (eg seed cultures of pathogens and toxins), or production equipment (eg fermenters, centrifuges, freeze dryers), that are intended by the recipient to be used as part of an offensive biological weapons production program? As discussed above, the prohibitions contained within the BWC are not limited to those pathogens and toxins which have already been weaponised by states (such as anthrax, plague, botulin toxin), but includes any pathogen or toxin, in any quantity, which is intended for hostile purposes.

A major challenge is how to develop control measures or monitoring procedures to avoid assisting the proliferation of biological weapons and bio-terrorism in ways that do not hamper the growth and sharing of scientific knowledge, and the global spread of beneficial advancing biological sciences and technologies. It is perhaps most useful to consider this challenge in two steps: international transfers, and domestic transfers.

³⁹ Final Declaration of the Fourth RevCon, above n 2, 17.

⁴⁰ *Ibid.*

A *International Transfers*

The key issue here is the dual-use nature of materials and equipment associated with biological weapons, and the difficulty in recognising when an apparently innocent transaction may have a hostile intent. In addition, there is the possibility that suppliers of dual-use items and technology could provide inadvertent assistance to either a rogue state's biological weapons proliferation program or bio-terrorism.

As discussed later in this volume,⁴¹ a group of countries which has become known over the years as the 'Australia Group'⁴² has developed harmonised lists of dual-use items, through a consensus approach. The participating countries subject the items on these lists to their national export licensing measures, with the objective of not assisting, even inadvertently, in the supply of dual-use items destined for biological weapon proliferation or bio-terrorism activities.

With the increasing emergence of evidence that dual-use materials were being diverted to biological weapons proliferation programs in the late 1980s, the Australia Group participants took steps to address the increasing problem of the spread of biological weapons. This included the development of export licensing measures for biological agents, including plant pathogens, animal pathogens and toxins; and dual-use biological equipment.⁴³ The factors considered when developing these lists included the potential relevance of particular items to biological weapons proliferation, and whether the items had previously been used in or sought for biological weapons programs.⁴⁴ The common control lists are reviewed and adjusted from time to time to ensure their continued effectiveness and relevance to contemporary security challenges.⁴⁵

In developing these lists, it was recognised that it would not be possible to control every single pathogen, toxin or dual-use item that could be misused for a biological weapons program or for bio-terrorism purposes. In recognition of the dual-use dilemma, Australia Group participants have also implemented a 'catch-all' provision, whereby those participants will not supply an unlisted item⁴⁶ when there is particular concern about potential diversion of the item for chemical or biological weapons purposes. Thus, the 'catch-all' remains a safety net to cope with the dual-use dilemma, to avoid as far as possible providing inadvertent assistance to biological weapons proliferation or bio-terrorism activities.

All countries participating in the Australia Group are States Parties to the BWC. These countries consider the implementation of national licensing procedures based

⁴¹ See Dr Bob Mathews, 'Development of the Australia Group Export Control Lists of Biological Pathogens, Toxins and Dual-Use Equipment' in Chapter IV of this volume.

⁴² For further information on the Australia Group, see <<http://www.australiagroup.net>>.

⁴³ The items of dual-use production equipment included fermenters, centrifuges, and high containment facilities. For the current control lists, see <<http://www.australiagroup.net>>.

⁴⁴ Important considerations for the Australia Group when developing or adjusting the lists, are that the measures should be effective in impeding the production of biological weapons; they should be practical and reasonably easy to implement; and they should not impede the normal trade of materials and equipment used for legitimate purposes.

⁴⁵ For example, since 11 September 2001 and the anthrax letters, the Australia Group has made a number of changes to the control lists, including the inclusion of several additional pathogens and toxins, and the reduction in the capacity of fermenters under control from 100 litres to 20 litres.

⁴⁶ That is, an item which is not contained on any of the Australia Group control lists, or an item below the licensing threshold (eg a fermenter with a capacity of less than 20 litres).

on the various Australia Group lists as an essential means to ensure that they are fully implementing their non-proliferation obligations under Article III of the BWC. In applying export-licensing procedures, participants also seek to ensure that international trade in biological products for peaceful purposes is not impaired, in accordance with Article X of the BWC.

Particularly since 11 September 2001, a number of BWC States Parties which do not participate in the Australia Group and have previously been critical of it, have recognised that the national export licensing measures developed by the Group would raise the barriers to chemical and biological terrorism. Indeed, there has been a growing acceptance of the Australia Group lists as the international benchmark in relation to export controls directed at chemical and biological weapons.

Most states have already developed legislation and regulations related to the export of items. The most straightforward approach would be the addition of the Australia Group biological lists to the lists of items that the state already subjects to export control. With respect to the ‘catch-all’ requirements to prevent the export of an ‘unlisted item’ of concern, the state may already have the authority to stop a particular export under existing legislation. If not, then the state could develop a new piece of legislation to provide this authority.⁴⁷

B *Domestic Transfers*

As discussed above, in addition to export controls on dual-use items relevant to the BWC, Article III also requires legislation and/or regulations that cover domestic transfers of pathogens, toxins, and related materials and equipment as defined in Article I of the BWC, to prohibit and prevent the domestic (or internal) transfer of these items for either biological weapons proliferation or bio-terrorism purposes. The major challenge in developing measures that prohibit and prevent access to these items for bio-terrorism or other hostile purposes within a state is that the measures developed should not unnecessarily hamper the beneficial advances in biological sciences and technologies.

At the Meeting of Experts in 2003, discussions took place in order promote common understanding and effective action on national mechanisms to establish and maintain the security and oversight of pathogenic micro-organisms and toxins.⁴⁸ A number of measures relevant to domestic transfers were identified, including:

- the establishment of national programs to evaluate and implement bio-security procedures, based on both the intrinsic risk and likelihood of diversion of particular pathogens and toxins, including oversight of facilities, transport systems and personnel possessing, handling, using and transporting potentially dangerous pathogens and toxins;
- national penal legislation to protect facilities and transport systems that possess, handle, use or transport potentially dangerous pathogens and toxins, including requirements limiting handling, use and transport of such materials to registered facilities and authorised personnel;

⁴⁷ See, eg, Australia’s *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*, discussed in Part IX below.

⁴⁸ *Report of the Meeting of Experts, Geneva, 18–29 August 2003*, BWC/MSP.2003/MX/4 (18 September 2003) available at <<http://www.opbw.org>>.

- national identification and licensing/registration of facilities and persons, and internal and external monitoring of such facilities; and
- support, as appropriate, for efforts by relevant international bodies, such as the World Health Organization (WHO), the World Organisation for Animal Health (OIE) and the Food and Agriculture Organization (FAO), to develop and/or expand voluntary bio-security guidelines.

There are many important practical issues related to the development of a national bio-security system, including:

- which pathogenic micro-organisms and toxins should be subject to enhanced security and oversight;
- whether the facilities that should be subject to enhanced security and oversight should be identified by a specified list of micro-organisms and toxins,⁴⁹ or whether it might be less complicated to have all facilities handling WHO Risk Group 3 and Risk Group 4 pathogens (as well as a list of toxins) subject to enhanced security and oversight; and
- what specific measures should be taken to enhance the security and oversight of the relevant facilities.

The form of legislation and/or regulations necessary to ensure that the relevant facilities are under a legal obligation to take the necessary enhanced security measures will depend on a number of factors, including the nature of the legal system existing within the state. Most states will already have legislation and regulations to cover some aspects related to the security and oversight of pathogens and toxins. For many states, it would be more cost-effective to adapt and enhance existing domestic legislation and regulations rather than attempt to develop a completely new system to meet the state's specific obligations under the BWC.

It follows that the optimum approach for a particular State Party will not necessarily be the same as the most suitable approach developed by other States Parties. Many States Parties are currently considering the optimum solution most appropriate to their particular constitutional, legal and administrative structures, to enable them to meet their obligations under Article III of the BWC.⁵⁰ This activity is still a 'work in progress' for many States Parties.⁵¹

⁴⁹ For example, the United States has developed a domestic regulatory system based on a 'Select Agent List', whereas the United Kingdom has developed its domestic regulatory system based on the Australia Group list of biological agents.

⁵⁰ As discussed in Dr Bob Mathews, 'Raising the Barriers to the Acquisition of WMD by Non-State Actors: The Roles of Arms Control and UN Security Council Resolution 1540' in Chapter VI in this volume, comprehensive legislation to fully satisfy BWC Article III obligations will also cover the obligations related to biological weapons (and related materials) under Security Council Resolution 1540. Therefore, the model legislation drafting elements developed for Article III of the BWC could also be used by states not party to the BWC to satisfy their 'biological obligations' under Resolution 1540.

⁵¹ For example, as discussed in Part IX below, Australia is presently reviewing its existing legislation and regulations with a view to ensuring that all obligations under the BWC and Security Council Resolution 1540 are being met.

VIII NATIONAL FOCAL POINT

There is no requirement in the BWC for State Parties to designate or establish a central agency to take a coordinating role in domestic implementation of the Convention and ensure that the State Party is meeting all of its obligations. Nevertheless, while it is not a specific obligation, there are obvious benefits in having an identified agency responsible for this activity.⁵² This would involve coordinating the different internal or government agencies undertaking activities relevant to the BWC, as well as being the contact point for external communications — such as communications with other States Parties; the United Nations Department for Disarmament Affairs with respect to reports under the CBMs; and, perhaps, preparing the reports for the Review Conferences. Raising awareness about the risk of misuse of biological agents is also an important task which could be assigned to a particular agency.

Several possibilities present themselves. At one end of the spectrum, a ‘National Authority’ could be established by legislation, which would also comprehensively define its powers, rules of procedure, structure and responsibilities. At the other end of the spectrum, an existing government agency can simply be assigned these tasks. As with the issue of national implementation generally, the approach taken will very much depend on the extent to which BWC obligations are seen to impact on the state in question.

The important point is that creating a central focal point for implementing the Convention does not require the creation of an expensive new bureaucracy. For many States Parties, a part-time foreign ministry officer together with appropriate expertise provided by other officials on an ‘on-call’ basis may be sufficient to fulfil the requirements of the National Authority (particularly in cases where there is only a small industry affected by the CBMs). Even in the context of the Chemical Weapons Convention, which does explicitly require that States Parties designate a National Authority and which has a full-scale system of national declarations and international inspections, most States Parties were able to satisfy this requirement by using an existing bureaucratic structure.⁵³

IX AN OVERVIEW OF AUSTRALIA’S NATIONAL IMPLEMENTATION

The aim of this Part is to provide a short overview of Australia’s national implementation as one possible example of a functioning system.

There are a number of pieces of Australian legislation relevant to meeting Australia’s obligations under the BWC, with respect to countering biological weapons proliferation and bio-terrorism. The principal enactments are: the *Crimes (Biological Weapons) Act 1976*; the *Customs Act 1901* and associated regulations; and the *Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*.

⁵² At the BWC Meeting of Experts in 2003, several States Parties spoke in favour of the benefits of assigning a National Authority which would be responsible for BWC obligations.

⁵³ Indeed, in the margins of the BWC Meeting of Experts in 2003, a number of representatives suggested that the role of their Chemical Weapons Convention National Authority may be expanded to include responsibility for their BWC obligations.

A *The Crimes (Biological Weapons) Act 1976*⁵⁴

The *Crimes (Biological Weapons) Act 1976* implements criminal sanctions for violations of the BWC. The Act has extraterritorial effect in that it extends to acts carried out, or to be carried out, by Australian citizens outside Australia and its external Territories. With respect to the dual-use issue, the Act quotes the definition of biological weapons directly from Article I of the BWC, and in addition, attaches the BWC text as an annex to the legislation.

B *The Customs Act 1901 and Associated Regulations*

The *Customs Act 1901* enforces border controls and manages the security and integrity of Australia's borders to detect and deter the unlawful movement of goods and people across the border. The *Customs (Prohibited Exports) Regulation* reg 13E prohibits the export of goods that are controlled, including military and 'dual-use' equipment, nuclear material, chemicals, pathogens and toxins, electronics, software and technology. The Australia Group lists of biological agents, toxins, and dual-use biological equipment are included in reg 13E.⁵⁵

C *The Weapons of Mass Destruction (Prevention of Proliferation) Act 1995*

This Act provides Australia with the 'catch-all' capability to cover the 'dual-use dilemma', based on the recognition that it would not be possible to develop a control list that would cover every single pathogen, toxin or dual-use item that could be misused for a biological weapons program or bio-terrorism purposes. Thus, the Act prohibits the supply of an unlisted item⁵⁶ when there is particular concern about potential diversion of the item for biological weapons purposes. Thus, the 'catch-all' provision remains a safety net to cope with the dual-use dilemma, to avoid as far as possible providing inadvertent assistance to biological weapons proliferation or bio-terrorism activities.

In other words, this Act regulates the supply of goods or services, both within and outside Australia; the export of goods and technologies that are not controlled under other legislation; the provision of services in Australia and external to Australia, where it is suspected that these goods or services will, or may, assist a WMD program. Thus it covers, inter alia, the transfer of biological agents, toxins, and dual-use biological equipment that are not listed in the Australia Group lists (and therefore, not listed in reg 13E), as well as transfer of technology where it is suspected that these goods or services will, or may, assist a biological weapons proliferation program.

⁵⁴ The *Crimes (Biological Weapons) Act 1976* is reproduced in Annex 2 of this volume.

⁵⁵ A more detailed discussion of these regulations is provided in Brad Howlett, 'Australian Export Controls' in Chapter IV of this volume.

⁵⁶ That is, an item which is not contained on any of the Australia Group control lists, or an item below the licensing threshold (eg a fermenter with a capacity of less than 20 litres).

D Other Relevant Legislation

In addition to the three Acts outlined above, there are a number of other pieces of relevant legislation that relate to biological activities, including the *Quarantine Act 1908*,⁵⁷ and the *Gene Technology Act 2000*,⁵⁸ as well as legislation administered by the various State and Territory governments within Australia. In light of the recent increase in terrorist-WMD concerns (as evidenced by Security Council Resolution 1540, and as discussed at the BWC Meeting of Experts in Geneva in 2003) Australia is in the process of conducting a legislative review into the control of hazardous goods, including the security of biological materials and facilities, with a view to ensuring that all BWC-related legislation and associated regulations and controls are effective, consistent and sufficient to prevent the procurement or possession of such goods for illegal purposes.⁵⁹

CONCLUDING COMMENTS

Effective national implementation of the Biological Weapons Convention is not only a legal obligation on States Parties, but is also an important tool to avoid (i) inadvertently assisting those involved in bio-terrorism; and (ii) allowing the formation of ‘safe havens’ for such activities. It ought to be clear from the foregoing that legislation, while an essential part of the package, is not in itself sufficient to ensure effective implementation. Effective implementation will require not only a sound legislative basis, but also credible control lists of dual-use items, domestic enforcement measures, appropriate training of law enforcement officials, and effective systems of information sharing. This requires high levels of cooperation internationally, within government departments (such as law enforcement, health, defence and customs) and between government officials and the scientific community. Indeed, effective national implementation will not be possible without the participation of the scientific and industrial communities, particularly with respect to raising awareness in those sectors and implementing codes of conduct.⁶⁰

⁵⁷ The *Quarantine Act 1908* provides broad powers to the Director of Quarantine to control the importation and use of biological materials in Australia with the aim of preventing or controlling the introduction, establishment or spread of diseases or pests that will (or could) cause significant damage to human beings, animals, plants and/or other aspects of the environment or economic activities.

⁵⁸ The *Gene Technology Act 2000*, supported by the *Gene Technology Regulations 2001*, constitutes the Australian Government’s system for regulating ‘dealings’ with genetically modified organisms (GMO). ‘Dealings’ with a GMO is defined as conducting experiments, making, developing or producing a GMO; breeding, propagating, growing or raising a GMO; and importing, possessing, using or transporting a GMO. The Act regulates dealings with all GMO and, depending on the dealing, may impose conditions such as containment requirements. Each State and Territory government in Australia has enacted corresponding legislation. The Office of the Gene Technology Regulator implements the *Gene Technology Act 2000* and related regulations.

⁵⁹ Australia, *Model Strategy for Implementing BWC Obligations*, BWC/MSP.2003/MX/WP.39, Working Paper presented to the Meeting of Experts (Geneva, 18–29 August 2003).

⁶⁰ As discussed in Dr Bob Mathews and Professor John Webb, ‘The Biological Weapons Convention Three-Year Program of Work: 2005 Codes of Conduct for Scientists’ in Chapter VIII of this volume, there is a valuable role for ‘codes of conduct for scientists’ to play as a means to gain the

This Chapter has attempted to provide a short overview of the different aspects of national implementation of the BWC. It is the first step of a larger project drawing together 'drafting elements' which will hopefully provide further assistance in achieving effective implementation of the Convention.

support and cooperation of the scientific community in the practical implementation of the legislative and regulatory procedures related to the BWC.