

The Chemical Weapons Convention and universality: A question of quality over quantity?

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The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention, CWC) was opened for signature in January 1993 and entered into force on 29 April 1997. It establishes a comprehensive prohibitory norm regarding the acquisition, possession and the use of chemical weapons (CW), which remains applicable under all circumstances, including that of armed conflict. As of 15 October 2002, 147 states have ratified or acceded to the CWC and another twenty-seven have signed, but not ratified it. Twenty-one states are non-signatories.¹

Between 28 April and 9 May 2003, the Organisation for the Prohibition of Chemical Weapons (OPCW) will hold the first Review Conference of the CWC.² The principal purpose of the conference is to evaluate the operation of the CWC in its political, legal and technical aspects. Part of this exercise is backward-looking, namely to evaluate the operation of the convention during the preceding five years. The other part is forward-looking, namely to identify the most urgent issues the CWC may face over the next five years and to set up mechanisms, if necessary, to deal with them. Consideration of questions relating to the universality of the CWC will be a key element in the review process as they bear on the future relevance of the prohibitory norm and the preservation of the interest of the states parties in the functioning of the treaty regime. During the first five years it has become clear that universality comprises more than just numbers of states parties.

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The CWC makes no direct reference to the concept of universality. Nevertheless, the desire for universal adherence follows from the wish in the preamble to exclude completely the possibility of CW use through the implementation of the treaty provisions 'for the sake of all mankind'.³ Universality was the clear aim of the negotiators. The CWC is open to all states without exception.⁴ Some measures, such as the limitation of the trade in scheduled chemicals to states parties only,⁵ were proposed with the aim of encouraging universal adherence.⁶ Furthermore, the negotiators constructed the CWC in such a way that a state can only claim legal rights under the convention (such as the right to import and export scheduled chemicals from or to a state party, to request and receive emergency assistance, or to benefit from international cooperation or technological exchanges under the convention) unless it engages in the treaty obligations.⁷ The reservation of these rights to states parties serves simultaneously as a penalty to states staying outside the CWC and as an encouragement for them to join. Especially with respect to the transfer of scheduled chemicals, the cost of staying outside the treaty rises with the growing number of parties to the convention as the possible alternative sources for such compounds decrease.

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From its second session in the later part of 1997 onwards, the Conference of the States Parties (CSP)—the highest decision-making body of the OPCW—has systematically emphasized the importance of universality and has called upon states that have not yet done so to ratify or accede to the CWC. The Technical Secretariat of the OPCW has developed several types of outreach programmes to increase the awareness of the importance of the CWC among non-member states. These activities have contributed greatly to the large membership of the convention.

However, attracting new ratifications or accessions is becoming increasingly costly. Most of the states currently outside the convention feel that they cannot join the CWC as a consequence of their threat perceptions or because they discern few tangible benefits that can offset the costs of being a

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member of the OPCW. In addition, the poor quality of the national implementation of the treaty obligations by many states parties has raised questions about their compliance and long-term commitment to the convention. The experience acquired during first five years of operation of the CWC has contributed to the growing awareness that there is a quantitative and a qualitative dimension to universality.

Quantitative universality

Quantitative universality bears on the number of independent states that adhere to a particular global treaty and thus directly relates to the strength of the norm. For a global agreement like the CWC, which has clear security implications for each participant, universal membership is ideal. However, no global treaty has ever attracted universal adherence. (Not every independent state is even member of the United Nations.) While absolute universality appears unattainable in practice, a high number of ratifications and the speed with which this number is achieved has important consequences for the states that stay outside the treaty. In particular, the consistent practice of the large group of states parties could make the relevant provisions of the CWC declaratory of international customary law, and thus binding on all states irrespective of whether they have joined the treaty.⁸

Nonetheless, some states currently outside the CWC are of CW proliferation concern. Most of them are located in regions of deep-rooted conflicts (Central and Southern Africa; Northeast, Southeast and Central Asia; and the Middle East) so that they feel they cannot afford to abandon the CW option in spite of the sanctions and benefits offered by the CWC. Whether their unwillingness to join the treaty diminishes the strength of the CWC is a matter of debate. Their membership in the convention could also cause difficulties if they continue to be suspected to behave in violation of the core prohibitions of the CWC and the verification instruments of the convention are unable to resolve the concerns unambiguously. Furthermore, their membership in the OPCW may also deprive the international community from alternative means (e.g., the range of coercive options available to the United Nations Security Council) to deal with a proliferation threat. It requires fundamental study into the reasons why the CWC cannot offer these states sufficient security guarantees in order to allow them to join.

Finally, quantitative universality or near-universality may also give rise to the so-called 'universality paradox', whereby a state may decide to remain outside the CWC because it believes it can acquire a major relative advantage over the parties to the convention by retaining or expanding its CW arsenal, or whereby a state party decides to defect from the treaty in order to obtain a similar gain. These possibilities underscore the critical importance of the provisions in the CWC that offer states parties security guarantees in the case of a threat with or actual use of CW (Article X), because they greatly reduce the relative advantages a country might hope to gain from staying outside or defecting from the treaty.

Qualitative universality

Qualitative universality refers to the necessity of the global treaty to remain relevant to all parties during its lifespan in order to ensure universal compliance. The CWC is of unlimited duration.⁹ This implies that the questions regarding universality pertain not only to the present, but also to the mid- and long-term future. This future perspective adds an important qualitative dimension to the concept of universality. In particular, the political, security and technological context in which the CWC must operate changes constantly. The greater relative importance of regional over global security after the end of the Cold War; the materialization of terrorism with chemical agents, the changed nature of terrorism in general and their impact on threat perceptions and responses of countries; the acceleration of product and process innovation in chemistry and its industrial applications; and the new demands and expectations for development from a globalizing economy are but a few of the significant developments that have marked the international context since the conclusion of the negotiation of the CWC in 1992. The nature of the CWC will also change considerably once all of the declared CW stockpiles have been destroyed.¹⁰ The verification of the chemical industry, the monitoring of the transfer of toxic chemicals and the organization of international cooperation will then be among the central activities of the OPCW. Irrespective of the motivations countries had at the time of becoming a state party, the transformations in the international context and the progress in the implementation of the CWC will generate different expectations from the convention.

The future relevance of the CWC to all states parties will depend greatly on the extent to which the OPCW can reaffirm the core prohibitions in light of technological changes and adapt the instruments and procedures envisaged by the negotiators to the emerging challenges and expectations.

GENERAL PURPOSE CRITERION

The OPCW has rightfully been concerned mainly by past CW programmes. Nonetheless, it also has an important task of preventing future weapon programmes involving the exploitation of toxic properties of chemicals. Future CW armament programmes may be based on so-called traditional toxic compounds and their precursors, most of which are listed in the three schedules of the CWC. However, new CW could also be based on toxic chemicals that are not listed in the schedules and therefore may fall outside the standard reporting and inspection routines. These could be currently existing toxic chemicals or novel ones. Besides product innovation there is also process innovation whereby traditional or novel chemical warfare agents and their precursors may be produced in ways that current inspection procedures were not designed to detect. The growing overlap between chemistry and biotechnology as well as design and production processes based on nanotechnology may be of particular concern.

Most of the technologies and processes required for the manufacture of CW have so-called 'dual-use' characteristics, because they also have legitimate civilian applications. As the CWC does not seek to interfere with legitimate scientific and economic activities in the field of chemistry, it uses the 'general purpose criterion' (GPC) to distinguish between legitimate and prohibited applications of technology. To this end not the technologies themselves but the purposes to which they may be applied are prohibited under the convention. The GPC is formulated in Article II of the CWC, which considers any toxic chemical and its precursors as a CW unless it is 'intended for purposes not prohibited' under the CWC and 'as long as the types and quantities are consistent with such purposes.'¹¹ Article II also identifies certain technologies—such as a chemical shell—that have no other purpose than for

chemical or biological warfare. They are therefore banned under all circumstances (which implies that they are single rather than dual use). The article further identifies the purposes under which toxic chemicals and their precursors are not considered CW. The GPC is reiterated in Article VI, which stipulates, among other things, that toxic chemicals and their precursors can only be transferred for non-prohibited activities.¹²

During the first five years of its implementation the focus of the CWC has been generally on the past and the present: creating inventories of past CW programmes, remaining CW stockpiles and CW-relevant installations, and of private and government facilities with activities that are reportable under the CWC. The reporting and verification requirements for the chemical industry are based on the three schedules of toxic chemicals. This practice has tended to narrow the range of the applicability of the convention to the listed chemicals only in spite of the all-encompassing scope embedded in the GPC. A similar trend is noticeable with regard to the reporting of the transfer of toxic chemicals under Article VI: while the GPC applies to all transfers of toxic chemicals, the reporting requirements and application of specific export control measures pertain only to the chemicals listed in the three schedules.¹³ In addition, some states parties seek to narrow the applicability of the CWC to the scheduled chemicals only (especially in the context of the debate whether export control arrangements that maintain longer lists of controlled items than the schedules, such as the Australia Group, can continue to exist outside the CWC regime), thereby disregarding the GPC.

A reduction in the scope of the GPC—whether by default through practice or by political design—could irrevocably undermine the CWC's ability to cope with future developments. At present, some production routes for particular chemical warfare agents are not covered by the schedules and the salts of some listed chemicals are not included in them either. Furthermore, there are reports of novel chemical warfare agents that were developed to a point just before weaponization. Because of the secrecy of these programmes, the chemicals were not considered during the negotiation of the CWC. Consequently, they are not reflected in any of the three schedules. (The composition of some of these chemicals has only recently been declassified.) Other chemical compounds are being investigated for their use as so-called non-lethal weapons. Under the current reporting obligations the state party in question need not inform the OPCW of such agents and consequently there are no inspections. Incomplete or uneven implementation of the GPC with respect to such agents could effectively limit the options of a challenge inspection or investigation of alleged use in the case a second state party should feel particularly threatened by them or becomes the victim of their use. In addition, rapid scientific and technological developments in chemistry and the chemical industry contribute to the high-speed screening of new toxic compounds, some of which might hold considerable attraction for warfare purposes. Present and future toxic chemicals are covered by the GPC, which, in the case of research and development, can also serve as the foundation of an ethical code against chemical warfare for scientists and other professionals.

Since the conclusion of the negotiation of the CWC the terrorist threat with chemical agents has become a reality. Terrorist may resort to the traditional chemical warfare agents; however, there are

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many other widely available toxic compounds—industrial, agricultural or other—that could serve their purposes. By ignoring or denying the GPC, states deprive themselves of an important foundation for legislation criminalizing the preparation, possession and (intent of) use of toxic chemicals for terrorist or criminal activities. This tool against terrorism ought to be included in the national implementation legislation of each state party as the lack of such legislation

in one or more state party could create safe havens where activities violating the CWC might be undertaken. This underscores the importance of having effective national implementation in place in all states parties.¹⁴

Two pillars for preserving long-term universality

The GPC preserves the intrinsic strength of the CWC as it enables the extension of the scope of the prohibitory norm to future technological developments of relevance to the convention. In terms of maintaining or further expanding the quantitative universality of the CWC, two articles are of critical importance—namely Article X on emergency assistance in the case of a threat with or use of CW, and Article XI on international cooperation and technology transfers among states parties. Their concrete implementation make up the two pillars of qualitative universality.

EMERGENCY ASSISTANCE

As a consequence of Article X, the OPCW has a specific mandate to provide assistance in the case of CW use or the threat of such use. However, after five years the implementation of the provision and the preparations for actual deployment of assistance are still in their infancy. Should the OPCW receive a request for assistance today, it would be unable to honour its obligations. The fulfilment of this eventuality could strike a fatal blow to the CWC, as it would signify the incapacity of the OPCW to offset the security consequences of the voluntary renunciation of a weapon category by a state party.

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In the light of the potentially critical importance of Article X, the undertaking to implement its different aspects is underfunded within the OPCW budget. Unfortunately, the project suffers from the standard problems associated with the priority allocation of scarce resources in the protection against threats: the wisdom of the investment can only be demonstrated in the case that the threat actually materializes, but meanwhile the expenditures produce no return on investment.¹⁵ In the wake of the terrorist attacks of 11 September 2001 the Technical Secretariat received an increased number of requests for help and advice, but the organization was unable to meet many of them for lack of resources. This has led to several complaints, which were taken up in the Executive Council of the OPCW.

The problems related to the organization of emergency assistance have been further compounded by the evolution of threat perceptions with regard to CW proliferation and terrorism. The terrorist attacks of 11 September 2001 appear to have provoked a tendency in some countries to place national security over collective security. In parallel to these developments the view has gained currency that sharing information about national CW defence programmes (as mandated by the CWC) or providing the OPCW with equipment to detect chemical warfare agents or protect against them (as one of the means open to a state party to meet its obligations under Article X) will reveal the weaknesses in the CW defence posture and consequently enable potentially hostile countries to exploit them.

Despite the considerable shifts in circumstances and threat perceptions that may be required to achieve a meaningful implementation of Article X, the OPCW cannot afford failure. Failure would seriously damage the prospects of universality in terms of attracting new ratifications or accessions from states in regions of conflict or of the long-term interest of states parties to be actively engaged in the CWC regime. Should some states parties decide that their security interests are better served through unilateral measures, such as CW armament for deterrence purposes, the whole prohibitory regime on chemical warfare may collapse.

INTERNATIONAL COOPERATION AND TECHNOLOGY TRANSFERS

Article XI deals with the right of states parties to economic and technological development and access to technologies for purposes not prohibited under the CWC. These prospects have proved to be the most important incentive for some developing countries that do not possess CW or face a threat with CW to join the convention and, in some cases, it has assisted in overcoming reluctance to join the CWC for regional geopolitical reasons. In this sense, the article has been an important promoter of universality.

However, the article is also extremely controversial for political reasons. Some vocal developing countries have come to view it as a development assistance obligation for the industrialized countries (rather than as a right to receive such assistance). Meanwhile many industrialized countries, as a consequence of CW use in the 1980–88 Iran–Iraq war, the prominence of regional security concerns in the post-Cold War era, and the changing nature of terrorism, have come to view CW proliferation as a major threat to their security interests. They have responded with export controls in an effort to prevent the diffusion of technology that could contribute to the acquisition of CW and have started to coordinate them within the framework of an informal arrangement known as the Australia Group. Certain developing countries have increasingly come to view the Australia Group as a suppliers cartel that denies them their right to economic and technological development promised by the CWC. As a consequence, implementation of Article XI has become extremely politicized and the issue has unnecessarily complicated policy development or practical decision-making in some other issue areas. The Preparatory Commission of the OPCW (1993–97) and the OPCW have been unable to draw a roadmap for implementation, and the Technical Secretariat, in the light of budget limitations and political constraints, has only been able to launch some modest initiatives.

In order to bridge the divide, some important questions need to be considered. Although the 2003 Review Conference need not resolve these questions, it can provide important guidance as to the direction the resolution of the controversy may take. In particular, regard should be given to the questions as to which tasks should be executed by the OPCW and in which areas the OPCW should operate as a facilitator between states parties or between scientific institutions and industry organizations of different states parties.

The foundation for a solution lies with the acceptance by all states parties of the basic obligation in Article I to never, under any circumstances, assist anybody with the acquisition of CW.¹⁶ This non-proliferation obligation extends much further than the scheduled chemicals or all toxic chemicals and their precursors as captured by the GPC: it covers all types of equipment, information, knowledge and expertise that might contribute to a CW armament programme. As a consequence, responsibilities with regard to technology transfers lie equally with the exporting and the importing state.

Export controls have received most of the attention in this debate. Import controls (and controls on technology transfers within a country), in contrast, have remained underdeveloped in both concept and practice. While there is a clear need to harmonize relevant export controls within the CWC framework—and to a certain extent this is already happening spontaneously among states parties through the coordination of customs regulations in regional settings—states parties should also study ways to increase the transparency of the movement of relevant technologies inside the country following their importation. Such mechanisms can contribute actively to the generation of confidence that the imported technologies are applied only for permitted purposes. In the short term, they may answer the question why the verification regime of the CWC is still unable to provide sufficient guarantees of compliance by states parties to the participants in the Australia Group.¹⁷ Conceivably, they can also contribute to the conceptualization of a long-term verification and monitoring regime that is more tailored to preventing the illegal acquisition of future technological capabilities for purposes prohibited

under the CWC than to the elimination of past CW programmes. Such measures can be developed by the OPCW as a whole as a way to implement the GPC as well as by states parties as part of their individual responsibilities to the CWC.

A second approach for resolving the political controversy involves the formulation of concrete expectations under Article XI by states parties based on their individual needs instead of maintaining a broad principled argument. This would open up opportunities for bilateral activities between states parties and the Technical Secretariat could act as facilitator between National Authorities (which states parties must set up as a national contact point under the CWC) or scientists and industry representatives of the respective countries. Such a role for the Technical Secretariat would have significant benefits for the preservation of the long-term interest of all states parties in the CWC. At present the Technical Secretariat is developing and promoting modest but much appreciated initiatives (e.g., capacity-building initiatives, such as the Associate Programme, information exchanges and so on). Such initiatives should be expanded in the short term as they help the developing countries to articulate their specific needs and allow mutually beneficial cooperation between the developed and developing world in a less polarized environment.

Article XI is critical to the long-term implementation of the CWC and the maintenance of qualitative universality. To a lesser extent, but no less important, the demonstration of tangible benefits for states parties under this article may still convince countries outside the treaty regime to join the convention. At present, only a tiny amount of the OPCW budget is allocated for Article XI initiatives. It is nevertheless clear that its relative importance will grow as the destruction of CW nears completion, freeing up a larger percentage of resources for international cooperation.

Conclusions

Five years after entry into force the CWC faces the first comprehensive evaluation of its functioning and its contribution to international peace and security. Within this short timeframe the convention established itself as a central tool to ban chemical warfare. The large number of ratifications and accessions testifies to the importance the international community attaches to the prohibition. In practice, the negotiators have laid the foundation for a security regime, which has turned out to be much more cooperative than the many detailed provisions to detect non-compliance and restore compliance might have initially suggested.

Despite the obvious successes, the CWC is at a crossroads. The convention faces many challenges, ranging from fundamental changes in the international security environment to accelerating advancements in science and technology. The future relevance of the CWC to all states parties will depend greatly on the extent to which the OPCW can reaffirm the core prohibitions in the light of technological changes and adapt the currently available instruments and procedures to the emerging challenges and expectations.

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The OPCW must therefore confirm the centrality of the GPC to the future of the CWC. The GPC is of critical importance with regard to the expansion of the scope of the CWC to scientific and technological innovation, the criminalization of acts by criminals and terrorists involving toxic substances, the development of codes of conduct for scientists and professionals, and the creation of an effective regime to verify the export and import of chemicals and other technologies to prevent present and future CW proliferation.

Of particular concern is the fact that the OPCW is at present incapable of honouring its obligations to provide emergency assistance to a requesting state party in the case of CW use or threat of such use. Failure of Article X when assistance should be required could signify the collapse of the prohibitory regime on chemical warfare. The implementation of Article X needs to be adequately funded as a matter of urgency.

Concrete implementation of Article XI on international cooperation is critical to the maintenance of universality of the CWC. States parties should explore equitable mechanisms of technology transfers that equally satisfy concerns about potential CW proliferation, on the one hand, and the aspirations of technological and economic development on the other. The Technical Secretariat should receive sufficient resources to expand its current efforts in helping developing countries to articulate their specific needs and facilitate interactions between scientists and industry representatives of different states parties.

On the whole, there is little reason to suppose that the CWC cannot continue to play a useful and necessary role in the current and future international security environment. Nevertheless, the concrete implementation of the elements in the convention that contribute to the qualitative dimension of universality will be part of the foundation of the CWC's long-term relevance. The forthcoming Review Conference offers an excellent opportunity to evaluate the current functioning of the convention and to consider future challenges to the treaty regime.

Notes

1. Full listings are available from the SIPRI CBW Project web site at < <http://projects.sipri.se/cbw/docs/cw-cwc-mainpage.html>> . Included in the number of non-signatory states are East Timor, Niue and Taiwan.
2. CWC, Article VIII, para. 22. Review conferences must be held in the year following the fifth and tenth anniversary of the entry into force of the CWC (2003 and 2008, respectively), and thereafter at five-year intervals. The complete text of the CWC is available at < http://www.opcw.org/html/db/cwc/eng/cwc_frameset.html> .
3. CWC, Preamble, 6th preambular paragraph.
4. CWC, Articles XVIII, XIX and XX.
5. The convention categorizes chemical compounds of particular concern in schedules depending on their relative importance for the production of CW agents or for legitimate civilian manufacturing processes. Apart from their significance for verification and reporting routines, the three schedules also form the basis of an export control regime among states parties and between states parties and non-states parties. An evaluation of the mechanism for monitoring the transfer of scheduled chemicals is included in J.P. Zanders et al., 2002, *Maintaining the Effectiveness of the Chemical Weapons Convention*, Stockholm, SIPRI Policy Paper, October, available at < http://projects.sipri.se/cbw/research/cwc_policypaper2.pdf> .
6. See, for example, United States of America, 1991, *Measures to Ensure Universality*, Conference on Disarmament document CD/CW/WP.357 of 8 August.
7. The intention is made clear by the reference to 'The States Parties to this Convention' in the opening clause of the Preamble and the recurrent explicit references to the 'states parties' in the articles that lay down the obligations and extend rights.
8. Y. Dinstein, 1995, Ratification and universality, in D. Bardonnnet, *The Convention on the Prohibition and Elimination of Chemical Weapons: A Breakthrough in Multilateral Disarmament*, Dordrecht, Hague Academy of International Law and Martinus Nijhoff Publishers, pp. 164-65.
9. CWC, Article XVI, para. 1.
10. This should be accomplished by 2007, although the CWC allows for an extension period of up to five years. Current projections suggest that as a consequence of economic, political and technological complications, Russia and the United States might exceed the maximum fifteen-year period for CW destruction specified in the CWC.
11. CWC, Article II, para. 1(a).
12. CWC, Article VI, para. 1.
13. The regimes governing the transfer of chemicals are detailed in the Verification Annex, notably Part VI, B for Schedule 1 chemicals, Part VII, C regarding the transfer of Schedule 2 chemicals to non-state parties, and Part VIII, C regarding the transfer of Schedule 3 chemicals to non-state parties. The import and export of Schedule 2 and 3

chemicals to other states parties are the subject of the initial and annual declarations to be submitted by each state party (Part VII, A and Part VIII, A respectively).

14. The relationship between national implementation measures and qualitative universality is discussed in J.P. Zanders et al., 2002, *op. cit.*
15. During the Cold War this was one of the rationales not to construct large collective shelters in the event of nuclear war, whereas the production of nuclear missiles and other offensive weapon systems—supported by political and bureaucratic interests—generated immediate and continuous employment or trade profits.
16. CWC, Article I, para. 1(a) and (d).
17. S. Batsanov, 2001, 'The CWC: Issues for the First Review Conference', briefing to the Center for Nonproliferation Studies, Washington, DC, 20 March, <<http://cns.miis.edu/dc/032001.htm>>.

