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This publication is the output of the Conference on "The Tenth Anniversary of the Chemical Weapons Convention: Assessment and Perspectives", held in Rome on April 19, 2007. Ten years after its entry into force, the treaty, an instrument of both disarmament and non-proliferation, is widely seen as a success. Nevertheless, it has come up against a number of problems and issues that still have to be solved. The CWC experience remains a bright but lonely star in the not-so-populated firmament of international agreements controlling the worrisome phenomenon of weapons of mass destruction. The CWC success story should be used to the fullest as a paradigm of reference for arms control and disarmament in other fields, such as nuclear and biological weapons. The papers gathered and the Conference report contribute to the reader's understanding of the most controversial aspects of disarmament law and policy.

THE TENTH ANNIVERSARY OF THE CWC'S ENTRY INTO FORCE: ACHIEVEMENTS AND PROBLEMS

edited by Giovanni Gasparini and Natalino Ronzitti



Quaderni IAI

ISTITUTO AFFARI INTERNAZIONALI

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PREFACE

The tenth anniversary of entry into force of the CWC marks a success story of a treaty which is at the same time an instrument of disarmament and of non-proliferation. At present, the entry into force of the CWC marks the success of a treaty which is at one and the CWC remains a unique endeavour, encompassing all the main features of disarmament treaties: it is non-discriminatory; universal, in that almost all States of the international community are party to it, and verifiable, the obligations entered into by States Parties are subject to strict control. The CWC is thus a step forward with respect to the BWC and the NPT, treaties which do not contain all three of these main features of modern disarmament conventions. Moreover, integrity constitutes another important feature, since reservations are not admitted.

The importance of the CWC should be appreciated in terms of its contribution to the disarmament process and the development of law in this field. Nowadays the importance of disarmament seems to be declining in the perception of major powers. Nevertheless, the CWC remains a stable achievement that will not be annulled by the current slowdown. No State has withdrawn from the CWC to date. However, the status of the Convention in wartime has not yet been clarified. Nevertheless, the obligation not to use chemical weapons against anyone now belongs to customary international law and more recent instruments, such as the statute of the International Criminal Court, have qualified the use of chemical weapons as an international crime. They are banned both in time of international armed conflict and during a

civil war. Therefore the importance of the Convention should also be appreciated in terms of the development of international law.

The organization set up to administer the CWC – the OPCW – is another important element. The gathering together of States in the Executive Council and the Conference of States Parties ensures a permanent dialogue between review conferences, which are held at regular intervals but usually every five years. However, the Technical Secretariat is endowed with specific functions and real powers, for instance in the framework of challenge inspections.

While the CWC can widely be seen as a success, it has encountered a number of problems and issues during the past ten years that still have to be solved.

First and foremost, the process of destroying chemical stockpiles is proceeding at a very slow pace. There are significant delays in the destruction of chemical arsenals in all countries, but it is still possible to stay within the terms of the Treaty by requesting a postponement. The delay is only partially due to technical challenges; the vanishing political support from some major States Parties and the lack of resources also play a very important role. The costs connected with this process are quite high and have probably been underestimated, and the lack of funding, whether alleged or real, slows the pace, thus further increasing the costs; clearly, there is a strong need for significant additional political and economic commitment.

Political support cannot be taken for granted, as countries do not always feel at ease with some of the Convention's implementing measures. While the intrusiveness of the challenge inspection mechanism is essential for the actual implementation of the CWC, it can also backfire, causing a generalised political disaffection for the whole process. Therefore, a difficult balancing between these two conflicting needs must be found.

Other issues also need to be clarified, such as the legality of non-lethal weapons and their status under the CWC.

The CWC experience remains a bright but lonely star in the not-so-very populated firmament of international agreements controlling the worrisome phenomenon of weapons of mass destruction.

The CWC success story should be used to the fullest as a paradigm of reference for arms control and disarmament in other fields, such as nuclear and biological weapons.

This publication contains the main papers presented at the conference on The Tenth Anniversary of the Chemical Weapons Convention: Assessment and Perspectives, held in Rome under the auspices of the Italian Ministry of Foreign Affairs. The conference was introduced by Vittorio Michele Craxi, Undersecretary of State, Italian Ministry of Foreign Affairs, and by Umberto Ranieri, Chairman of the Foreign Affairs Committee, Italian Chamber of Deputies. Guido Pollice, President, Green Cross Italia, Rome; Rogelio Pfirter, Ambassador, Director-General, Organisation for the Prohibition of Chemical Weapons-OPCW, The Hague; and Stefano Silvestri, President, Istituto Affari Internazionali, Rome, also addressed the conference. The conference's agenda can be found at the end. The summary of the proceedings illustrates the lively discussion after each session. The papers collected belongs to authors coming from different schools and the views expressed do not necessarily reflect those of the Istituto Affari Internazionali. The editors are confident that the Rome Conference will be a useful contribution to next year's CWC Review Conference.

G.G. / N.R.

1. THE TENTH ANNIVERSARY OF THE CHEMICAL WEAPONS CONVENTION: ASSESSMENT AND PERSPECTIVES

*Sergey Batsanov**

Introduction

History often surprises us with coincidences. In this case, the end of 2006 marked the beginning of a series of anniversaries of various multilateral and bilateral treaties completely or partially dealing with security, non-proliferation and disarmament. Last September we celebrated the 10th anniversary of the opening for signature of the Comprehensive Test Ban Treaty (CTBT) (one may ask, how much is there to celebrate?); this year we have the 40th anniversaries of both the opening for signature and the entry into force of the 1967 Outer Space Treaty; this summer there will be the 35th anniversary of the first agreement between the two major nuclear weapons states on the limitation of their strategic arsenals (SALT 1) and of the late Anti Ballistic Missile (ABM) Treaty, limiting the missile defence systems in the two countries. Next year we will have celebrations for the 40th anniversary of the conclusion of the Nuclear Non-Proliferation Treaty (NPT). All of those treaties and agreements have contributed to international security and helped avoid some of the worst manifestations of the arms race. However, on balance the record is rather mixed.

One anniversary, however, gives much more reason for celebration than for concern (although there are some), and that is the anniversary of the

* The views expressed are those of the author and do not necessarily reflect the views of Pugwash or any other organisation or government.

Chemical Weapons Convention (CWC). On 29 April 2007, the international community will salute the 10th anniversary of its entry into force and the establishment of its implementing organisation, the Organisation for the Prohibition of Chemical Weapons (OPCW), based on the CWC. Despite all the problems of the initial period, and the difficulties that transpired later on the road to implementation, the CWC and the OPCW appear to be, so far, the most successful undertaking in the field of disarmament and non-proliferation, capable of withstanding the pressures of time and of global change. It is also solid proof that effective multilateralism is not only possible, but can be highly successful. Just a few examples – more detailed analysis will follow in the sections below.

CWC is the fastest growing regime ever, including 182 states parties just 10 years after its entry into force. No other regime can boast such an achievement. Only 13 states remain outside the regime, of which 6 are signatories and, hence, under obligation – in accordance with international law – not to take actions contrary to the Convention, such as to produce, develop, test, proliferate or use chemical weapons. Thus, an international legal norm against chemical weapons has already become a solid element of customary international law.

The CWC/OPCW succeeded in launching, under severe time pressure, a most extensive and elaborate regime of verification and inspections, making an inventory of almost all CW stockpiles in the world, ensuring that the stocks are reasonably well secured and are gradually being eliminated – although not as fast as originally envisaged. To call a spade a spade, the dream of destroying all chemical weapons in 10 years did not materialise. But, at the same time, in combination with the cessation of production of CW, verified destruction or conversion of production facilities and consequential phasing out of qualified military and production cadres, as well as of CW capable means of delivery has already resulted in a serious decrease in the military value of remaining stocks, as well as of the perceived utility of traditional CW in general. Thus, confidence in the regime and among States Parties has grown significantly, and the risk of CW proliferation has by and large diminished.

Another notable success of the regime was the establishment, in a number of States Parties, of national implementation mechanisms, the adoption of laws and regulations to implement the treaty, setting the stage for close cooperation among States in various areas, involving government officials, military, parliamentarians, lawyers, scientists, the private

sector and NGOs. As a result, strong pro-CWC communities have come to life in a number of countries, contributing immensely to transparency and confidence building and to the stability of the regime in general. And, finally, the success of the CWC and the OPCW has provided humankind with an inspiring example of how it is possible not only to outlaw one particular category of weapon of mass destruction, but gradually to move towards its complete elimination. It is appropriate to remember this, also because there are signs of the revitalisation of the Conference on Disarmament – the mother of almost all multilateral treaties on arms control and non-proliferation – and a renewed hope that the conference will again become a busy working body, as at the time of the CWC and the CTBT negotiations.

It is therefore hardly surprising that the 10th anniversary of the OPCW is being celebrated throughout the world. There have been meetings in Europe, the United States, Latin America, with more to come. They are not just mere celebrations, but also, and perhaps, more importantly, political will builders because, all the very deserved praise notwithstanding, much remains to be done, and the treaty, together with the OPCW, has to be nurtured by its owners – Member States – in a careful and forward looking way.

Italy played a very important and difficult role at the crucial stage of negotiations in Geneva, being the coordinator of the not so easy to manage Western Group. It was one of the first to ratify the CWC and to adopt national implementing legislation, and then amended it in line with the requirements of the Convention. Italy displayed much transparency and good will in opening up its chemical industry for verification, being ready to go further than many other countries. It contributed substantially to building the OPCW and keeping it up to date, including through a series of inspector training courses at its facilities. The most recent course took place in March 2007 in Civitavecchia for newly recruited OPCW inspectors. Last, but not least, Italy has shown good will in assisting other States Parties, in particular the Russian Federation, with the elimination of their chemical weapons arsenals.

1. OPCW - Reasons for Success

Several important ingredients account for the success of the Chemical Weapons Conventions and the OPCW.

The CWC is, probably, the most “democratic” disarmament regime. It is

“non-discriminatory” in that it treats all member states equally, regardless of whether or not they possess chemical weapons, and it explicitly combines disarmament and non-proliferation functions. By contrast, the NPT, concluded in 1968, created two categories of states – “nuclear weapons states” and “non-nuclear weapons states”. This distinction was further reinforced in 1995 by the indefinite extension of the NPT (originally concluded for a period of 25 years) to deal with the new possessors of nuclear weapons, such as India and Pakistan. In addition, the CWC is different from its predecessor treaties, as well as from the later CTBT in that it does not give special rights to any individual parties, including the conditions for entry into force or the permanent seats on the executive body. Of course, more powerful nations have a greater say, but this is not legally guaranteed them.

The CWC is the only treaty with a “matching” implementation and verification mechanism – the OPCW – which is responsible, at least in theory, for all aspects of compliance with and implementation of the CWC. The CWC regime is “reasonably” verifiable. OPCW on-site inspection procedures monitor the elimination of all inventories of chemical weapons and former CW production facilities, and include routine inspections of a large number of commercial chemical facilities. The 1972 Convention on the Prohibition of Biological and Toxin Weapons (BWC), in contrast, lacks any formal mechanisms for implementation or compliance and has only embryonic verification measures, subject to a decision by the UN Security Council. The CWC’s inspection activities are also far more intensive and diversified than those conducted by the International Atomic Energy Agency (IAEA), whose verification mandate covers, as noted above, only safeguards and no other aspects of NPT compliance. This last point is of particular importance since it makes the CWC “a living organism”, and gives it a variety of tools to adjust to new geopolitical realities and to deal with inevitable implementation problems.

Many, if not all, the basic provisions of the CWC are built – sometimes implicitly, often explicitly – around the idea of cooperation among parties. This message is clearly visible in verification and compliance provisions and, as the first decade of implementation shows so well, has been applied by States Parties to a range of other activities, from national implementation to the destruction of chemical weapons, even though the latter is defined by the CWC as the responsibility of respective possessor States. The provisions of the Convention, detailed as they are, give significant powers to the Executive Council and to the Conference of States Parties

– the main organs of the OPCW with regard to specific implementation situations. That, in turn, involves a number of States Parties in the decision-making process on a regular basis, and thus reinforces their attention to the CWC and their political will to make it work.

These features have definitely helped the CWC and the OPCW to manage better in a turbulent period of transition from a bipolar world to a new, yet to be defined system of international relations, which at present can be characterised as a complicated mix of unipolarity and multipolarity.

2. CWC and the Changing Global Environment

The CWC and the OPCW were products of the final phase of the Cold War and could not have emerged in a different historic environment, whether several years earlier or later. Since then, the global political environment has undergone rapid and profound changes which are illustrated, *inter alia*, by the fact that the Comprehensive Test Ban Treaty, negotiated in the mid-1990s, can still not be brought into force 10 years after being opened for signature because of the crisis of the nuclear non-proliferation regime, the collapse of negotiations on the BWC verification protocol and the decade of continued hibernation of the Conference on Disarmament in Geneva.

The current phase in international relations is a transitional one, with the intensive processes of geopolitical reconfiguration, emergence of new centres of power and the consequential crisis of traditional international institutions and the erosion, or, perhaps, evolution of norms of international law. Globalisation, and more specifically, gradual redistribution of the powers of nation-states in favour of super-state and sub-state (or non-state) actors adds to an increased sense of insecurity, as does the emergence of new threats, including that of terrorism.

As a result, more and more States, large and small, are manoeuvring to secure or improve their geopolitical situation, obtain or preserve access to vital natural resources and look for better protection against external influences or pressures. Regrettably, despite the mounting evidence that military power cannot solve today's problems, the complexity and the unpredictability of the present world pushes many political leaders in the direction of military build-up and often makes them reluctant to consider limitations on existing and potential military programmes. Among the many victims of these dangerous political tendencies are

arms control, non-proliferation and disarmament, as well as multilateralism in general.

The CWC has been lucky to have been affected less than other regimes, but it is not immune to these challenges, and many specific problems of chemical disarmament, such as insufficient funding for CW destruction resulting in a slower than expected pace of chemical disarmament, can be explained to some extent by a lack of political will or attention stemming from the general malaise in the area of disarmament (see the section on CW destruction).

There are no treaty-specific remedies for this category of challenges, at least in the direct sense. Two points should be made, however. The first is that the CWC/OPCW remains a bright spot on the otherwise grim map of multilateral disarmament, and that the problems of chemical disarmament have not so far become insurmountable; the only requirement is to identify them in time and deal with them in an open, cooperative manner, without losing sight of the fact that much more than narrow technical issues are at stake. The second is that the synergy between the Convention and the OPCW is in itself a powerful antidote to the general deterioration of the state of affairs in disarmament, since the organisation, which brings together States Parties and the secretariat, is capable of generating new ideas and collective political will.

3. Adjusting to New Realities

The specific circumstances, concerns and perceptions that made it possible for the CWC to be born and start functioning more or less successfully, also imposed certain limitations on the organisation and its operations. It was simply not feasible at the time of the CWC negotiations to anticipate certain aspects of today's world to which the OPCW must now respond. One example is the treaty's excessive emphasis on the verification of CW destruction at the expense of certain types of industry inspections, the explanation being the extreme mutual mistrust between the two superpowers and the lack of reliable information about the respective stockpiles which prevailed in the 1980s. Other examples of the changed circumstances include a noticeable evolution of the perception and prioritisation of major threats. Although the threat posed by weapons of mass destruction (WMD) has not gone away, its perceived importance has diminished relative to other threats, such as the spread of communicable diseases. The perception of the

nature of the chemical threat is also different today: it is no longer seen as coming from the superpowers' arsenals but from those of terrorists or a small number of states that refuse to join the CWC. But, it may well be argued that this perception is also largely a result of the CWC.

Equally, the provisions of the Chemical Weapons Convention regarding assistance and protection against the use of chemical weapons, earlier perceived as a means of assuring non-chemical weapons States against possible attack by CW possessors, may be losing some of their relevance with the dramatic growth of the number of CWC States Parties and the gradual reduction of existing arsenals; yet other threats, including those of chemical terrorism and chemical calamities, are growing. At the same time, the chemical industry and science have been undergoing important changes, including the introduction of new technologies, equipment and processes, as well as new business and organisational approaches. Trade in chemicals has also grown considerably and new chemical compounds and mixtures, some of them of potential relevance to the CWC, have become available, both for industrial and counter-terrorism purposes. Finally, especially during the last several years, there has been a real revolution in the means of protection against and detection of chemical agents.

It is also noteworthy that, while it was considered more effective in the past to treat different types of WMD separately from one another, in today's world many of those issues have become much more interrelated and interdependent. While the technical differences remain strong, political problems of WMD proliferation often overlap; and the new risks, such as terrorism with WMD cannot be handled by any State or even intergovernmental organisation single-handedly.

Finally, the over-all success story of the CWC has brought to light a certain number of miscalculations or imbalances built into the treaty due to insufficient information available during negotiations or simply the intention to paper over difficult issues that had been delaying the conclusion of the treaty. Today, some of the problems that were "put aside", are coming to the surface and need to be addressed by the organisation, which has in the meantime proven its problem-solving capability.

More importantly, the new realities, together with the progress in CWC implementation, underline the need to identify the new security interests of States Parties that the CWC and the OPCW should be able to address. In other words, now is the time to start asking what there is in the Convention to guarantee its attractiveness to States Parties in future, and how the OPCW should look in a chemical weapons-free world.

4. Implementation Problems

The most immediate challenges to the well-being of the Convention and to the future of chemical disarmament in general are related to the slow or, otherwise, insufficient progress in the achievement of what the vast majority, if not all the States Parties still believe to be the priority implementation tasks of the CWC. These include the destruction of chemical weapons, achievement of universal participation in the Convention and its proper implementation on the national and international levels. There are some lingering, but not acute concerns about compliance with the CWC by some of the States Parties, occasional complaints about what some nations believe to be less than satisfactory implementation of certain articles, such as Article VI (Activities not Prohibited by the Convention) and Article XI (Economic and Technological Development), differences in interpretation of certain provisions, as well as some not so serious house-keeping difficulties that are normally found, in one form or another, in any international institution.

5. CW Destruction

Both the achievements and difficulties in this area are becoming increasingly evident, especially in the light of the fact that most of the CW possessor States will not be able to comply with the 10-year deadline established in the Convention for the final destruction of their stockpiles. The CWC deadlines have turned out to be unrealistic, and procedures for their modification too rigid. Of course, the main difficulties have emerged with chemical warfare agents, and not with munitions. On the other hand, the world has witnessed new and very positive examples of international cooperation in the area of destruction, not envisaged in the Convention. Although the treaty states clearly that the costs of destroying CW and of related verification must be borne by the possessor States, in fact more than one of them has asked for and received financial or technical assistance with CW destruction (in the case of Albania, with meeting verification costs as well).

At the beginning, it seemed that Russia would be the only possessor State having difficulties with the timely destruction of its chemical arsenals – Russia's problems became obvious even before negotiations on the CWC were concluded when, at Moscow's request, the already

agreed treaty provision requiring complete destruction of CW stocks in ten years was reopened and renegotiated in 1992 so as to allow for a 5-year extension of the final deadline.

For most of the first decade after the entry into force, the delays with CW destruction in Russia caused by insufficient funding were, perhaps, the only disquieting signal of what could happen when the destruction deadline approached. But once the financing of the Russian destruction program picked up, both through national funding and international assistance, things started to improve. The destruction rate is now rapidly increasing. While it took Russia nine years to destroy the first ten percent of its stockpile of 40,000 tons of agent, the second ten per cent was done in just a bit over half a year – between August 2006 and April 2007. As of mid-April 2007, Russia has surpassed an important 20 percent benchmark.

The opposite tendency has manifested itself in the US – the second largest possessor of chemical weapons. The US had started destruction before the CWC entered into force, and until recently was running ahead of the CWC schedule, having surpassed the figure of 40 percent by mid-April 2007. Nevertheless, this initial success created a sense of complacency and, together with the general atmosphere of indifference towards disarmament, has led to a situation in which military and technical experts have been left alone to deal with constantly emerging problems, often of a political nature, without the proper oversight. As a result, the construction of several destruction facilities has suffered long delays. In April 2006, the United States not only requested the maximum extension of five years, but announced that it might fail to complete destruction even by the 2012 deadline. Moreover, according to some reports, it may take the US as long as 11 more years – until 2023 – to complete destruction.¹

Against this background, the difficulties of lesser magnitude experienced by other possessor States with smaller arsenals cannot significantly affect the general situation. The fact remains, however, that the CWC negotiators seriously underestimated the technological complexity, huge financial burden and various other issues evolving by their own logic (environmental regulations, local concerns and politics, etc), associated with CW destruction.

The XI Conference of States Parties, the highest policy-making body of the OPCW, which met on 5-8 December 2006, adopted several decisions

¹ Global Security Newswire, 22 November 2006

extending the final destruction deadlines for five of the six possessor States.² The United States and the Russian Federation were given the maximum extension possible under the CWC – until 29 April 2012. Libya (which joined the convention at a very late stage) was given until the end of 2010 to complete its destructions program, while India was granted a reprieve till the end of April 2009. The fifth possessor state, which prefers not to be named publicly, will have to destroy its last weapons by the end of 2008. Only Albania, which was also late in starting its destruction, declared its intention to do the job by April 2007, although it asked for and received extensions of the intermediate deadlines.

Under the circumstances it would be premature to discuss now what would happen if one or more CW possessor States failed to meet the April 2012 deadline, but in reality this debate has already begun. Some experts contend that an amendment to the CWC (and hence the convening of a formal Amendment Conference) will be necessary. Others believe that this approach would be disruptive, as it could open the treaty to attempts to renegotiate other important provisions, and hence hope to resolve such a fundamental issue through some sort of “technical amendment”.

Another, more elegant approach would be to make use of a series of provisions of the CWC, regarding consultation, cooperation and fact-finding, as well as measures to redress a situation and ensure compliance (Article IX, paragraphs 1-7, and Article XII). The authors of the Convention have deliberately put emphasis on the need for the Executive Council and the Conference of States Parties to decide first on measures needed to remedy, within a specified time, a situation that contravenes the provisions of the Convention, while avoiding hasty rulings on compliance and punitive actions.

In fact, such an approach already received political support from States Parties when Albania, the smallest CWC possessor State, which has not asked for the extension of the 10-year deadline within the timeframe envisaged by the CWC, suddenly faced technical difficulties with destruction in early 2007. While there is no legal possibility for Albania to be granted an extension, consideration of the issue by the Executive Council and an eventual decision based on the merits of the issue and aimed at facilitating the speedy reversal of the situation, appears to be the most promising and constructive option. This example shows that a politically and legally workable solution, short of amending the treaty (even in the

² OPCW Press Release, 11 December 2006

form of a technical change), can be found. It also demonstrates that the main objective should be to promote the destruction process in every possible way, rather than to argue about minor details. In this sense, the so-called Albanian case might turn out to be useful for future situations as well. That said, the worst case scenarios for 2012 can only be speculative at this point, and efforts should be concentrated on ensuring compliance with the new deadlines just approved by the OPCW.

It is therefore of the utmost importance to ensure that the CW possessors, and in particular the two biggest ones, display the necessary political will and high-level attention to this problem, needed to ensure adequate funding, effective inter-agency coordination and a search for imaginative solutions to remaining technological and local political issues.

From the technical point of view, it might be attractive to concentrate efforts on degrading the CW agents, rendering them militarily useless and economically unattractive for reconversion into CW agents (chemically that would always be possible, but at a great cost, and with unproven technologies). The contentious issue of determining the endpoint of chemical weapons destruction would come into play here. Greater flexibility on this and other technical issues might make it possible to accept the completion of destruction at an earlier stage and thus meet the extended deadlines. After all, according to the CWC, the destruction is understood to be a process by which chemicals are converted in an essentially irreversible way to a form unsuitable for the production of chemical weapons. If any toxic waste were to remain at the expiry of the final deadline in 2012, it would be much easier to deal with it both from the political and legal points of view.

Finally, it appears necessary to proceed with the development of a new vision of the OPCW in a chemical weapons-free world – not only because such a vision is needed to address new challenges, but also because it would help build both the conviction that chemical weapons will soon disappear from the earth and the political will required to make that happen.

6. Universality and National Implementation

To make a chemical weapons-free world a reality, one very important condition must be met: the achievement of universal participation in the CWC. Universality is both one of the OPCW's success stories and a challenge. Much has been done in this direction; so far the CWC has been

the fastest growing global disarmament treaty, as far as its membership is concerned. With 182 States Parties, the CWC encompasses over 90 per cent of the world's population. The comprehensive, non-discriminatory nature of the CWC has played a positive role in promoting its international acceptance. Another significant factor has been the mutually reinforcing relationship between the CWC and the OPCW. The organisation has played an important role in supporting the treaty by convincing non-Parties to join and applying pressure on States that are already parties to behave better than they otherwise would have. Other global WMD treaties do not enjoy comparable institutional support.

In a departure from the experience of "older" multilateral arms control treaties, and having overcome the initial criticism for that, the OPCW has played a highly proactive role in persuading new States to join and helping them to develop domestic implementing legislation and regulations, while taking their specific political, legal, and economic conditions into account. These achievements have been the result of long-term planning, analysis, non-traditional diplomacy (including coalition-building), effective adaptation to changing circumstances, and continuity of effort – a combination that individual states with their diverse foreign policy priorities usually cannot sustain. It goes without saying that taking on this role, previously reserved for governments, the OPCW has had to act skilfully and with at least the tacit support of important member states – something which cannot always be taken for granted and, on occasion, has to be convincingly engineered.

In the course of this work, the OPCW has also overcome the conventional wisdom that a State's decision to join a security-related treaty is strictly an internal, sovereign matter. Instead, the OPCW has worked proactively to influence internal governmental decision-making. Specific achievements in this area include the decisions to join the CWC by Sudan, Serbia and Montenegro, Afghanistan, Libya, and several of the former Soviet republics, particularly in Central Asia.

Today only two geographic areas remain of serious concern with respect to the universality and non-proliferation value of the CWC, namely North Korea and a few countries in the Middle East, in particular, Syria, Egypt, Lebanon and Israel (the latter signed the CWC, but is showing little willingness to ratify it). Given the difficulty of these hold-out cases, however, creative political strategies and strong support by major world powers will be necessary to gain their adherence.

Having many countries is important, but clearly insufficient if some are not implementing the treaty's complicated requirements. Moreover, a

well-organised and transparent system of national implementation strongly reinforces the CWC compliance mechanism and provides an additional level of assurance to other Parties regarding the compliance of the country in question. In fact, the above observations are not only applicable to the chemical weapons ban but also to other weapons of mass destruction (WMD), counter-terrorism, environmental protection, human rights, and post-conflict reconstruction.

The OPCW has pioneered in providing assistance with national implementation to Member States, including the preparation and adoption of domestic legislation and administrative regulations and setting up functional national authorities. Once again, an old assumption had to be tactfully overcome, namely that law-making is strictly the internal business of individual States.

Despite serious progress, CWC national implementation still leaves much to be desired. This can be attributed in part to the complexity of the subject and the slow work pace of many parliaments. It would be useful to work more closely with international organisations that help with the national implementation of other relevant regimes or arrangements, such as the IAEA, and regional bodies, like the African Union. A very useful initiative, both in terms of universality and national implementation, was the adoption by the European Council in December 2005 of the Joint Action on support for OPCW activities in the framework of the implementation of the EU Strategy against Proliferation of Weapons of Mass Destruction.

7. Verification and Compliance

On balance, the system of routine on-site inspections of treaty-relevant military and commercial facilities has worked quite well. By the end of 2006, the OPCW had conducted more than 2500 inspections at almost 1000 sites in over 70 countries. Over time, imbalances in the design of the verification regime have come to light, such as the extremely heavy emphasis on the verification of CW destruction (85 percent of all inspector-days) at the expense of certain types of industry inspections. These imbalances have resulted in some cases from lingering Cold War assumptions and in other cases from the absence, at the time of negotiations, of correct information about relevant facilities. For example, it turned out that most of the declared Schedule 1 facilities were, in fact, small laboratories that did not warrant the heavy verification regime

prescribed by the CWC. Conversely, a large number of industrial plant sites producing discrete organic chemicals (DOCs) remain practically untouched by routine visits. OPCW is taking steps to address these imbalances, such as efforts to reduce the number of inspectors at CW destruction facilities in the United States, Russia, and – to a lesser extent – India. As noted above, the current level of confidence, coupled with the experience accumulated during numerous CW inspections over almost ten years, have eased security concerns about chemical weapons already declared and slated for destruction. This, in turn, reduces the need to spend the lion's share of OPCW inspector resources on the verification of CW destruction.

But whether this should automatically lead to increased intensity of industry verification is a totally different question. This question must be addressed not in isolation but rather in the context of the rapid managerial, organisational, and technological changes taking place in the chemical industry today. Mobility and flexibility in production techniques, nanotechnology and micro-reactors, the shrinking size of production and business units, new capabilities to produce an ever-wider range of toxic chemicals and blurred boundaries between chemistry and biology – all of these developments will undoubtedly affect the future of industry inspections

There is probably not much that needs to be done to improve the effectiveness of verification at Schedule 1 and Schedule 2 facilities. The intensity of such inspections has been adequate; moreover, given the actual global inventory of Schedule 1 facilities, which turned out to be less dangerous than it was assumed during negotiations, the OPCW decision in favour of a modest reduction of inspections there was quite appropriate. Equally appropriate was the introduction, in 2006, of on-site sampling and analysis at Schedule 2 facilities – an important procedure which had been envisaged by the CWC but not initially applied for several reasons.

The opposite picture has emerged with regard to inspections at plant sites producing discrete organic chemicals, alias Other Chemical Production Facilities (OCPF). While the chemicals themselves are of little danger to the Convention, the plant sites are normally huge, often multi-functional, especially with modern technology packed with easily re-adjustable equipment. States Parties are required by the CWC to provide very limited information about these sites; moreover, they often have difficulties themselves in identifying such sites on their own terri-

tory for the purposes of reporting to the OPCW. In 1998 (the first full year after the entry into force) about 3300 such sites were identified; in 2006 this number increased to more than 5000, largely as a result of a special assistance program to Member States run by the OPCW. In the meantime the intensity of inspections at the OCPF sites was running between 1 and 2.5 percent per year, thus offering no real deterrent value and no accumulation of experience, and practically guaranteeing that most of the sites would not be inspected for decades. The selection criteria for inspections have not been adopted either, while several States Parties still feel uncomfortable about even modest increases in the number of such inspections. Some of these problems also apply to Schedule 3 inspections, but a lesser degree. There is no magic formula to correct the situation, but its continuation will keep undermining the credibility of the CWC industry verification regime. It is clear, however, that a lot of work needs to be done by the OPCW, its Member States and, last but not least, the chemical industry in order to find the way forward.

Besides routine inspections, the CWC has created the most radical verification tool – the right available to any State Party to request a “challenge” inspection of any facility suspected of violating the treaty, without right of refusal. Although this powerful instrument has not yet been used, the OPCW Director-General and relevant parts of the OPCW Technical Secretariat are preparing the inspectorate to mount a challenge inspection as soon as a request is received. There exists a body of opinion that the absence of a challenge inspection to date is another sign of weakness of the CWC verification system.

This view, however, does not take into account the fundamental difference between the challenge inspection and other means of verification envisaged by the CWC. The former was designed as both a deterrent and an ultimate guarantee for a state party having serious concerns about compliance by another state, so that, even if it is not a member of a powerful coalition, it still has a means at its disposal to have its concerns addressed. On the other hand, the challenge inspection procedures have been carefully calibrated to contain a complex mix of checks and balances, and, indeed, represent a double-edged sword that must be used very carefully to avoid major political embarrassment for a requesting Party. As a result, the absence of challenge inspection requests rather demonstrates that no State Party has had such serious suspicions as to compel it to resort to a challenge.

What is needed is an in-depth review of the preparations already made by the OPCW, including various procedures, to ensure that they

are workable and effective. One question arises in this regard: the CWC time-lines for challenge inspections have a serious gap at the beginning, in that they contain no indication of how soon after submission of the request to the Executive Council the inspection team should depart for (or arrive at) the inspected State Party's site. One could also have a closer look at how the launch of a challenge inspection would affect the OPCW's capabilities to act if another request were to come soon after the first one. (Under the CWC, the Director-General is under the obligation to report to the Executive Council if at any given moment the available resources are not sufficient to mount a challenge inspection).

Another aspect of compliance is the fact that the CWC verification mechanism is spread rather unevenly among the various prohibitions and obligations. Major elements of the treaty that have a direct impact on its non-proliferation potential, such as the prohibitions on assisting or encouraging other states to acquire chemical weapons, as well as on transfer of such weapons, have largely been neglected. In theory, the absence of specific verification provisions in the CWC for monitoring these obligations does not preclude the OPCW from developing additional procedures to address the problem (similar to how the IAEA is regularly enhancing and broadening the safeguards system), but the political will has been lacking. As a result, this lacuna in the CWC regime is now being filled by ad hoc measures outside the treaty framework, such as the Proliferation Security Initiative (PSI).

The OPCW should also have greater flexibility to make improvements in the verification system consistent with the treaty, either through targeted decision-making by the Conference of States Parties or, in specific cases, through the budgetary process. For example, CWC provisions designed to prevent the proliferation of chemical weapons and related technologies, such as export controls, could be strengthened. To start with, one should return to the pending issue of applying export controls to Schedule 3 chemicals (if not outright prohibition, then at least reporting requirements). Some thought could be given to developing non-obligatory guidelines on national measures to implement the non-transfer and non-assistance obligations under Article I of the Convention. It would be of interest to know how Parties are implementing these obligations, what legal basis exists for it and whether any best practices can be identified. The possibility of voluntary visits to facilities that play an important role in preventing illegal shipments of weapons and technology, like major sea ports,

could also be an option – perhaps, one or another Party could consider hosting such a visit. Further down the road a need for a more formal document could be examined.

8. Newly Emerging Risks and Challenges

In the new global situation, problems related to different types of WMD and their proliferation have become much more interdependent. Despite the specificity of the chemical, biological, nuclear, and missile control regimes, new forms of combating the spread of WMD have sought to address these various categories of weapons under the same framework (again, PSI is a good example). This interrelation was not envisaged when the CWC was being negotiated.

Also unexpected at the time of the CWC's adoption was the growing threat of terrorist use of WMD. Even when this risk became more obvious, many governments were reluctant to explore the potential of the OPCW and similar organisations to combat WMD terrorism. Just as in the area of non-proliferation, efforts to prevent the terrorist use of WMD cannot be effective if governments continue to maintain firewalls between the various types of WMD.

There is a dilemma here: on the one hand, the OPCW can hardly count on maintaining its relevance and “market value” indefinitely if it stays away from these new cross-boundary problems; on the other hand, it cannot pretend to address such problems in their entirety. Hence, the question before the CWC States Parties is about properly defining the role and place of the new and very capable mechanism they have created in the global effort to address these new problems and phenomena. In the case of terrorism, it is not enough to say that the OPCW's role is limited to destruction of chemical weapons so that the terrorists cannot steal them (theft of chemical weapons for terrorist purposes is an unlikely proposition – terrorists are much more likely to use the destructive forces that are readily available, as shown by chlorine attacks in Iraq). Nevertheless, the role of the organisation can only be limited. Despite the fact that chemical terrorism is a threat, not to be ignored, there are no terrorist organisations or groups which are specifically “chemical”; and the OPCW should not have the task of fighting terrorism as a whole. But it has enough intellectual and material capacity to contribute to defining the threat better, assessing the relative risks pre-

sented by certain chemicals and processes in this context and serving as a forum of consultation and cooperation among States Parties on a wide range of chemical security issues, which have an important development dimension and, thus, could be of interest to a majority of the CWC Parties. There are no reasons why the OPCW should not look at expanding international cooperation in the peaceful uses of chemistry in a way that does not create new proliferation risks, as well as at improving the safety of chemical industry against terrorist attacks and natural disasters. The final document of the First Review Conference included some rather modest remarks on the protection of chemical industry facilities against terrorist attacks. Since then, the United States and other Western countries have made efforts to improve the physical security of their chemical plant sites. One should give serious thought to how this experience can be shared to benefit the safe development of the chemical industry in the developing world. In other words, how can we find synergies between Article X (on protection against chemical weapons) and Article XI (on international cooperation in the peaceful uses of chemical technology)?

A further factor affecting the health of the CWC regime is the potential risk associated with the research and development of new chemicals and production processes. Although a good deal of such R&D will lead to innovations unrelated to the object and purpose of the CWC, a relatively small segment of such activities might affect the treaty. A good example is the area of “non-lethal” incapacitants, which are of growing interest to several countries for counter-terrorism operations. Although such developments exploit the “law enforcement” exemption in the CWC, they are increasingly being applied for paramilitary purposes. In theory, the OPCW has the necessary instruments to address this problem, such as the Scientific Advisory Board, yet this topic has been considered too sensitive even to be raised at the organisation’s meetings.

Sooner or later, an in-depth review of the implications for the CWC of advances in chemical science and technology will be in order. As to the problem of “non-lethal agents”, one should recall that the CWC covers incapacitating agents (non-lethal agents) and not just agents designed to kill. According to Art. II, para 2, “Toxic Chemical means... any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans and animals...” If a state has riot-control agents, it must declare the types and may not use them as a method of warfare. In that sense, despite deliberately vague language defining non-prohibited purposes (“law enforcement,

including domestic riot control”). If a state has riot-control agents, it must declare the types and may not use them as a method of warfare, despite deliberately vague language defining non-prohibited purposes (“law enforcement, including domestic riot control”). Thanks to the General Purpose Criterion, there seems to be no gap in the CWC coverage of various chemicals. Since September 11, however, the fight against terrorism has led to intensified research on new chemical compounds with very rapid incapacitating or irritant effects, along with the development of new means of delivery and dispersal. According to press accounts, in several instances the same delivery systems have been designed in different versions for law enforcement and battlefield use. Such development work is eroding the boundary between the permitted use of riot-control agents for law enforcement purposes and the CWC’s prohibition on their use as a method of warfare.

At the same time, a frontal approach to the “non-lethal problem” may not be productive. One should bear in mind that the negotiators of the CWC deliberately created ambiguity in the treaty text about the meaning of the term “law enforcement, including domestic riot control”. It is therefore important to develop greater understanding of the issue and explore ways of providing greater transparency. As a first step, one could look into a possible exchange of information about national legal and administrative norms governing research and development in the area of incapacitating agents to ensure that the integrity of the CWC is not at risk. National implementation, an important safeguard against abuse, is very relevant in this case as well. Indeed, the Article VI .2 requirement that “Each State Party shall adopt the necessary measures to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred or used within its territory or in any other place under its jurisdiction or control for purposes not prohibited under this Convention.”, if properly complied with, will take care of much of the problem.

9. Second CWC Review Conference - The Forum to Address Challenges and a Challenge Itself

A good opportunity to address future challenges to the CWC and the OPCW will come at the Second Review Conference, which has been scheduled for April 2008. The Executive Council of the OPCW has already set up an open-ended working group (OEWG) under UK chairmanship to

prepare for it. The OPCW established a similar OEWG before the First Review Conference, and the decision to do so again reflects the organisation's special role and comprehensive mandate for treaty implementation. The Second Review Conference will be an important event that will, ideally, contribute to strengthening the CWC regime and the political commitment of the States Parties. Nevertheless, the nature of several problems of treaty implementation requires that they be worked on before, during, and after the Review Conference, so that limiting analysis to what should happen at the conference itself might leave a number of important questions unanswered.

The preferred outcome would be a short, dynamic political declaration expressing strong support for the CWC and its effective implementation, backed by a longer text that addresses various important issues, including the progress in CW destruction, verification and compliance, universality and national implementation, counter-terrorism, economic and technological development and chemical security. Without necessarily trying to resolve all these issues once and for all, the Review Conference should chart the course of work over the next five-year inter-sessional period and, wherever possible, introduce the required innovations.

Hopefully, the Conference will be able to send out a convincing message that chemical disarmament is on track and that States Parties feel assured of its ultimate success. To reinforce this message, the Review Conference would be well advised to develop a preliminary vision of the OPCW in a chemical weapons-free world. To this end, the conference should address future priorities and structural reforms that will be needed once all of the declared CW stockpiles have been destroyed. Even if no detailed or final decisions can be taken at that early stage, the Review Conference could still instruct the Executive Council to begin systematic work on those issues.

10. Can the CWC Still Be a Trailblazing Treaty?

The relevance and the future of international agreements depend, to some degree, not only on the difference they make in the specific areas they are supposed to regulate, but also on their impact on activities and processes in other fields. When the Chemical Weapons Convention was adopted by the Conference on Disarmament in 1992, it was often

hailed as an example for future agreements on arms control and disarmament. Indeed, in the 1990s it served as at least an inspiration for the 1997 Model Additional Protocol to the IAEA Safeguards Agreements (INFCIRC 540), which significantly improved the safeguards system and, in a much more direct way, as a model for negotiations on the verification provisions of the Comprehensive Test Ban Treaty and on the Protocol to the Biological and Toxin Weapons Convention.

Attempts to use the CWC as a model have not been entirely successful. In 2007, the CTBT, concluded in 1996, is still very far from entering into force, although for reasons that have little to do with verification. All that notwithstanding, it may be claimed that the CWC has already played an important role in disarmament areas beyond its “direct sphere of responsibility” and that the problems encountered in the cases of the CTBT and the BWC have more to do with the general attitudes towards disarmament than with the deficiencies of the CWC model.

So, the question remains: can the CWC or, rather, the approaches built into it, provide an example to follow for other arms control areas? The response, it seems, could be cautiously positive, with the understanding that under no circumstances can a treaty, or its individual provisions, be automatically copied to resolve issues for which this treaty was not intended.

Rather promising in this sense could be a set of approaches that the CWC offers in the area of verification and compliance (barring, of course, technicalities that are specific to chemical weapons or the chemical industry and certain implementation aspects where OPCW performance leaves something to be desired). Among these approaches the following are of particular importance:

- a) almost comprehensive coverage by the verification system, coupled with an international mechanism (organisation with both political and technical arms) responsible for the whole range of compliance issues;
- b) a mix of cooperative and more forceful verification techniques, with the general emphasis on the former;
- c) diversity of tools available to initiate inspections, depending on the degree of sensitivity – from the Technical Secretariat to individual member states;
- d) diversity of the types of inspections with varying intrusiveness, depending on the risk posed to the CWC regime by respective chemicals, facilities and activities, as well as on the need to reduce as much as possible inconveniences to legitimate activities and to insure protection of confidential information;

e) the combination of routine inspections with a potential threat of challenge inspections, the latter representing a politically charged double-edged sword and a powerful deterrent, realistically available to any State Party, but with a set of disincentives against abusive or irresponsible use and, in terms of implementation procedures, reliance on managed access to help the inspected Party demonstrate its compliance without compromising unrelated sensitive information;

f) the important role in ensuring compliance and building over-all transparency and confidence assigned to procedures other than inspections, including assistance to member states in compiling correct and comprehensive declarations, intensive cooperation with national authorities responsible for CWC implementation on the national level (including training of national authorities' personnel), and putting in place comprehensive systems of national legislation to empower respective governments to police the CWC on a national level, to deter and punish not only the violators, but also those who, by omission or intentionally complicate the verification activities of the OPCW;

g) and, finally, a very innovative, multi-optional approach to dealing with suspected or presumed violations, which is focused, in the first place, on the need to guarantee compliance and reverse the negative situation, rather than on labelling and punishing suspected violators in situations that may not be crystal clear. In other words the logic of the CWC compliance provisions is first to impose on a suspected violator very specific measures it should perform in order to return to the state of compliance (e.g. declare a certain facility, accept a special investigative visit there, remove certain elements of the facility or close it down – all depending on the circumstance of the case). And only if the prescribed measures are not carried out within certain timeframes, is a judgement on non-compliance passed.

Apart from the above mentioned approaches, which could be applicable, with necessary fine tuning, to a number of arms control and disarmament measures, there are some less obvious features of the CWC regime that could also be of some relevance. For example, the gradual introduction of the verification measures (not immediately after the entry into force). In the CWC, this approach is used in relation to inspections of the OCPFs on the assumption that the first step has to be the establishment of some sort of a database of inspectable facilities. This element is somewhat obscured by the fact that in general the CWC verification and implementation regime, as negotiated in Geneva, turned out to be excessively “front-loaded” – that is to say that too many

activities were expected both of the individual member states and of the OPCW immediately after the entry into force of the Convention. (In reality this front-loading resulted in a number of cases of “technical non-compliance”, due to the fact that many states were simply not able to adopt in time the complicated legislation needed to implement all the provisions correctly, especially with regard to industry verification.) This incremental approach to verification may prove useful with regard to a number of possible arms reduction steps, where immediate full compliance may be a difficult objective to achieve. Retrospectively, it might have been wiser to use this approach also with regard to some other types of CWC inspections, including challenge inspections. In short, there are a number of lessons to be learned from both the negotiations and the implementation of the CWC that could have a significant value for other arms control, disarmament and non-proliferation efforts, even including nuclear disarmament. However, the main question is whether the international community will be able to overcome its current nihilistic attitude towards serious disarmament measures – something that must be done sooner or later to prevent not just a bilateral arms race of the kind we observed during the Cold War, but a multiple, not always symmetrical, arms race with several protagonists, which would be much more difficult to bring under control.

2. ASSESSMENT OF THE 1993 CHEMICAL CONVENTION: LIGHT AND SHADOW

Natalino Ronzitti

1. Introduction

The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (CWC) was signed in 1993 and entered into force on 29 April 1997. This year, marking the tenth anniversary of the Convention's entry into force, it is appropriate to point out its major achievements in the field of disarmament. In addition to the control system, which will be addressed by other speakers, its greater success has been in the field of integrity and universality.

Integrity means that reservations cannot be appended to the text of the CWC. They are admissible only to the Annexes, provided they are not incompatible with the object and purpose of the treaty itself (Article XXII). The Vienna Convention on the Law of Treaties (Article 19) states that a reservation which is excluded by the text of the treaty cannot be formulated. However, practice shows that States often try to circumvent that prohibition through recourse to understandings or declarations. Another device is for the body authorising the executive to ratify the treaty to formulate a list of interpretative understandings. Such devices have also been applied to the CWC, albeit in a moderate way if compared to other multilateral treaties, such as the 1982 Law of the Sea Convention. The most understandings have been drawn up by the United States, following its practice of "national interpretation" of treaties to which it is a Party. Congress listed a number of "reservations",

stating that it had the right to do so, notwithstanding Article XXII of the Convention.¹ Yet, given the prohibition on reservations, including interpretative reservations, national interpretations are inadmissible, since international law dictates rules on treaty interpretation (embodied in the pertinent articles of the Vienna Convention) reflecting customary international law. In any case, the CWC also establishes a procedure for settling disputes, including those related to interpretation of the Convention.

Universality is a characteristic of multilateral disarmament treaties. If the treaty is ratified by only a few States, the treaty is ineffective. The most concerned States, i.e. those having chemical weapons and/or capable of building them (a process which has become quite easy) should ratify the Convention. The CWC is almost universal: 182 States have ratified, only 13 States have not. Of the 13 States, 6 are signatories. It should be remembered that signatory States, while not obliged to abide by the Convention, are nevertheless obliged to refrain from actions contrary to the object and purpose of it, unless they have made clear their intention not to become a Party (the rule, embodied in Article 18 of the Vienna Convention on the law of treaties, is declaratory of customary international law).

Constant efforts are made to encourage non-Party States to ratify the CWC. The Organisation for the Prohibition of Chemical Weapons (OPCW) has played a significant role in this connection, for instance by convening regional conferences. The role of NGOs should also not be neglected. In some instances, a stalemate may depend on reciprocal mistrust and the linkage with atomic deterrence, as in the cases of Israel and Egypt. According to some observers, this impasse could be overcome with the creation of a regional zone free of weapons of mass destruction (WMD), but this argument is questionable.

In addition to integrity and universality, non-discrimination is also considered a distinctive feature of the CWC. Non-discrimination is a characteristic of all disarmament treaties, unlike non-proliferation treaties – such as the Nuclear Non-Proliferation Treaty (NPT) – which make a distinction between a few States lawfully in possession of weapons and States which, on the contrary, are not allowed to detain them. The question of non-discrimination has come into consideration, as far as the

¹ See The Presidential Message to the Congress on April 25, 1997, *Disarmament Diplomacy*, No. 14, April 1997.

CWC is concerned, in connection with Article XI (Economic and Technological Development) and the export controls that Western states still apply *vis-à-vis* States Parties to the CWC.² Account has to be taken of the Security Council resolutions against the proliferation of WMD, and the measures they dictate on export control, such as in resolution 1540 of 24 April 2004. The articles on technological development set down in disarmament and non-proliferation treaties should be read in conjunction with those resolutions.

2. The continuing relevance of the 1925 Geneva Protocol

The lack of universality and the danger of non-application of the Convention in time of armed conflict make the 1925 Geneva Protocol on the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare an instrument that is still valuable. Its continuing and permanent validity is reaffirmed by the CWC, in both the Preamble and Article XIII. The Protocol and the CWC are of a different nature and have different functions. The former is an instrument of international humanitarian law, prohibiting the use of chemical weapons (CW), but allowing States to produce and keep them. The latter is an instrument of disarmament obliging States not to produce CW and to destroy existing stocks. It is also an instrument of international humanitarian law, since States are obliged not to use CW. However, unlike the Protocol which allows the use of CW by way of reprisal, the CWC prohibits use under “any circumstances”, with the consequence that Parties are obliged not to use CW even for reprisal. The CWC does not abrogate the Protocol – not even *inter partes*. As stated in the Preamble, the CWC “complements” the Protocol. There are three reasons why the Protocol still maintains its importance:

- There are a number of States (i.e. Egypt and Israel) which have not ratified the CWC, but have ratified the Protocol.
- The CWC is stipulated for an unlimited duration. However, it contains a clause (Article XVI) allowing a Party to withdraw if its

² For instance, the Australia Group was criticised by Third World countries during the CWC negotiations and is still object of criticism. Article XI interpretation is not easy, in this regard, see my article “Economic and technological development and trade in chemicals”, in M. Bothe, N. Ronzitti, A. Rosas, *The New Chemical Weapons Convention – Implementation and Prospects*, The Hague/London/Boston, 1998, 533-542.

supreme interests are in jeopardy. The withdrawal is made conditional upon notification of the intention to do so to the United Nations Security Council, the other Parties and the Executive Council of the CWC and takes effect only 90 days after the notification has been made. Those entities and in particular the Security Council may intervene to cool off the crisis. However, as North Korea has shown in connection with its intention to withdraw from the Non-Proliferation Treaty, a State cannot be prevented from abandoning a disarmament treaty. In such a case, the 1925 Protocol becomes very important because, if it is Party to it, the State still has the obligation not to use CW.

- In case of war between two or more parties, the fate of disarmament treaties are doubtful. They are terminated or at least suspended. This conclusion may be applied to the CWC, even though the effect of war on this particular treaty was not raised during its negotiation (one may refer to the control system, but it is nonsense to claim that a challenge inspection which might jeopardy the security of the inspected State might be carried out!). Even if the treaty is not automatically terminated in time of war, a Party can always withdraw, invoking extraordinary events jeopardizing its security (Article XVI). Unlike disarmament treaties, international humanitarian law treaties such as the 1925 Protocol continue to apply in wartime and have been stipulated taking into account that they will be applied in war, as is made explicit in the text of the Protocol.

3. The CWC and humanitarian law

One of the main characteristics of the CWC is that it is both a disarmament treaty and a convention embodying provisions of humanitarian law, unlike the BWC which deals only with disarmament (even though one could say that the obligation not to use BW is implicit since you cannot use what you do not have).

Article I of the CWC obliges States:

- a) not to use CW;
- b) “never” to use such weapons “under any circumstances”.

Unlike the 1925 Protocol, reprisals are therefore forbidden under the CWC.

It would be opportune for all States Parties of the CWC that have made a reservation to the 1925 Protocol, stating that they remain free to use

such weapons by way of reprisal (namely reprisals in kind to react against the use of CW by the enemy), to withdraw them. In effect, a number of States party to the CWC (i.e., Australia, Belgium, France and Chile) withdrew their reservations to the Protocol even before the CWC was concluded.

Another important feature is that the CWC is applicable in any kind of conflict, international or internal. The debate on whether the Protocol applies only in time of international armed conflict – since it relates to “war” – is too well known to be repeated here. The Convention applies “under any circumstances” and therefore does not allow for any circumvention of the obligation not to use CW.

4. The CWC and customary international law

The CWC in itself (i.e. in all its provisions) is not declaratory of customary international law. Hence a State is not subject to challenge inspections unless it has ratified the Convention. The obligation not to produce or destroy CW cannot likewise be considered as belonging to customary international law.

On the contrary, it is now almost unanimously held that the duty not to use CW stems from a norm of customary international law, binding all States of the international community – be they Party to the 1925 Protocol and the CWC or not. This has been stated recently by the International Committee of the Red Cross (ICRC) study on international law and customary international law. Does customary international law also prohibit the use of chemical weapons for reprisal against first use of this kind of weapon by the enemy?

As said earlier, the 1925 Protocol does not prohibit reprisals against the first use of chemical weapons. A number of States have made a reservation to this effect. However, the lawfulness of a reprisal in kind is not subject to the formulation of an *ad hoc* reservation. Even if a State has not formulated a reservation, reprisal is possible if admitted by general international law. The CWC prohibits reprisals in kind and the provision on reciprocity contained in Article 60 of the Vienna Convention on the Law of Treaties – according to which a treaty is suspended or terminated for a material breach of the other Party – cannot be invoked in respect of “the provisions relating to the protection of the human persons contained in treaties of a humanitarian character, in particular to provisions prohibiting any form of reprisals against persons protected by

such treaties". Therefore the prohibition never to use CW is not subject to reciprocity since it is formulated for protecting human beings.

A number of arguments militate for stating that customary international law prohibits not only the use of chemical weapons, but also their use by way of reprisal. The CWC Preamble contains lofty language, stating that States are "determined for the sake of all mankind to exclude completely the possibility of the use of chemical weapons". Almost all States of the international community are Party to the CWC, which forbids reprisals. A number of countries withdrew their reservations to the 1925 Protocol, by which they reserved the right to employ CW as a reaction to prior use by the enemy. Moreover, it is stated, for instance in the UK Military Manual,³ that States party to the CWC are forbidden to use CW by way of reprisal under Article I(1) of the CWC and that the Convention does not permit any reservations. One can therefore state that reprisals are forbidden under treaty law, but it is doubtful whether the prohibition of reprisal in kind under the CWC is declaratory of customary international law rather a development in this field. On this point, the ICRC study on customary international law does not provide the last word; it only states that, under general international law, "there is increasing evidence that it may be unlawful to retaliate in kind to another State's use of chemical weapons".⁴

5. The criminality of chemical warfare

The criminality of chemical warfare is now an established principle of international law. Article 8, paragraph 2 (b) (xviii) of the Statute of the International Criminal Court (ICC) qualifies "employing asphyxiating, poisonous or other gases, and all analogous liquids, material or devices" as a war crime. The language used is similar to that of the 1925 Protocol (even though BW are not mentioned there). As far as the criminality of employing prohibited weapons is concerned, Article 8 of the ICC Statute covers only international armed conflict and does not address non-international armed conflict. One could therefore argue that the use of CW during an international armed conflict is not only prohibit-

³ UK Ministry of Defence, *The Manual of the Law of Armed Conflict*, Oxford, 2004, page.107, Rule 6.8, n. 24.

⁴ J.-M. Henckaerts, L. Doswald-Beck (eds.), *Customary International Humanitarian Law*, Vol. I: Rules, Cambridge, 2005, page 260

ed, but also amounts to a crime of war, while the use of the same weapon during a non-international armed conflict is only prohibited but cannot be qualified as a crime of war. This conclusion, however, would run counter to the case-law of the International Criminal Tribunal for Yugoslavia, which has established that the prohibition to use non-permitted means of warfare should be regarded as a war crime whether the forbidden weapons are used during an international or an internal armed conflict.⁵

Article VII, paragraph. 1 (a), of the CWC obliges States parties to enact penal legislation in order to prevent individuals from undertaking an activity prohibited by the Convention. However, the CWC does not qualify the prohibited activity as a war crime.

Iraq under Saddam Hussein, which employed CW during the Iran-Iraq war to arrest the counteroffensive of the Iranian army, was an important importer of substances destined for the production of CW. Shipments originating in the West were in contravention of the prohibition. On 23 December 2005, The Hague District Court (Criminal Section) condemned Mr. van Anraat to 15 years imprisonment for having supplied Iraq with chemicals used to produce CW. The criminal activity was committed before the entry into force of the CWC and the judgment applied Dutch criminal law of the time.⁶ The sentence was confirmed by The Hague Court of Appeal (9 May 2007) and the penalty increased to 17 years of imprisonment.

6. Controversial issues

Notwithstanding that it took the Conference on Disarmament and negotiators several years to conclude the CWC, a number of issues still fall into grey areas and are open to controversy. This is inevitable in these kind of negotiations where consensus is often reached thanks to what is called “diplomatic ambiguity”.

The controversial issues to be considered are: herbicides, riot control agents, and non-lethal weapons.

⁵ ICTY, *Prosecutor v. Tadic*, Appeal Chamber, 1995, paragraph 124.

⁶ S.Oate, B. Exterkate, L. Tabassi, E. van der Borgh, “Lessons Learned: Chemicals Trader Convicted of War Crimes”, *Chemical Disarmament Quarterly*, December 2006, pp. 19-31.

Herbicides are not included in the body of the Convention, since this would have meant prohibiting them for any kind of use, for instance for cleaning the perimeter of military camps.⁷ During the negotiations, the proponents of a provision on herbicides recalled their widespread use during the Vietnam war to defoliate forests and prevent them from being used as sanctuaries by North Vietnamese soldiers and South Vietnam insurgents. Herbicides were also used in counterinsurgency operations in Malaysia to clean the jungle. The 1925 Protocol does not contain any explicit prohibition on herbicides and the United States took this position in 1975 when it adhered to the Protocol. The compromise reached at Geneva was to confine herbicides to the Preamble, “recognizing the prohibition, embodied in the pertinent agreements and relevant principles of international law, of the use of herbicides as a method of warfare”. The prohibition therefore relates only to the use of herbicides as a method of warfare as they were employed in Vietnam by the United States and its allies. Moreover, the Preamble refers to the pertinent agreements, which are the Enmod Convention and Protocol I, additional to the 1949 Geneva Conventions. The Enmod Convention and Protocol I do not specifically address herbicides. However they ban means and methods of warfare which are intended or may be expected to cause “widespread, long-lasting or severe damage to the natural environment” (Enmod Convention) or “widespread, long-lasting and severe damage to the natural environment” (Articles 35, para. 3 and 55, para. 1 of Protocol I). The latter provision deals with the repercussions of the damage caused by prohibited means and methods of warfare on the health or survival of the civilian population as herbicides employed on a large scale have a toxic effect on human beings. The Preamble also refers to the relevant principles of international law, thereby reflecting the opinion that herbicides are prohibited as a method of warfare. This opinion, expressed by the framers of the Convention, is now shared by almost all members of the international community as Parties to the CWC. The United States, however, does not consider herbicides specifically prohibited by either the

⁷ The author has already dealt with *herbicides* elsewhere and the conclusions reached are still valid, even if they are now more than a decade old. N. Ronzitti, “Relations between the Chemical Weapons Convention and Other Relevant International Norms”, in D. Bardonnet (ed.), *The Convention on the Prohibition and Elimination of Chemical Weapons: A Breakthrough in Multilateral Disarmament*, The Hague, 1995, pp. 171-176.

1925 Protocol or the CWC, even though it has “formally renounced the first use of herbicides in time of armed conflict, except for control of vegetation within U.S. bases and installations or around their immediate perimeters”.⁸

Riot control agents are forbidden by the CWC as a method of warfare (Article I, paragraph 5), but are allowed for “law enforcement including domestic riot control purposes” (Article II, paragraph 9 d).⁹ The 1925 Protocol does not state any particular prohibition on riot control agents (e.g. tear gases) and several States, including the United States, affirm that they are not prohibited by the Protocol, even though they have declared that they will not resort to their first use in war, since this would provoke an escalation of the conflict.

The CWC partly clarifies the issue: it is certain that riot control agents may be employed for law enforcement and it is equally certain that they cannot be employed as a method of warfare. The definition of riot control agents by the CWC is also of some help. Article II, paragraph 7, gives the following definition of riot control agents: “any chemical not listed in a schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure”.

But some doubts remain. First of all, the quantity detained in stock is important, since a large quantity might be suspicious and could be employed for a purpose prohibited by the Convention.

Then, while it is certain that riot control agents cannot be employed as a method of warfare in time of an international armed conflict, it is not sure that the same prohibition applies in the event of a civil war, since the established government can always state that it is using the chemicals for law enforcement. The regulation of international armed conflict, too, is not exempt from uncertainty. A State is obliged not to use tear gases in the battlefield, but what about their use to quell a rebellion in a prisoner of war camp or an occupied territory? A further doubt is related to peacekeeping operations. Are peacekeepers authorized to use tear gases in a non-combat situation? The UN Secretary General Bulletin, issued on 8 August 1999 on the principles of international humanitarian

⁸ A.R. Thomas and J. C. Duncan (eds.), *Annotated Supplement to the Commander's Handbook on the Law of Naval Operations*, International Law Studies, Vol. 73, 1999, page 477.

⁹ Riot control agents, likewise herbicides, have been tackled by the author in a paper delivered at the Hague workshop, *supra*, note 7.

law to be applied by peacekeeping forces, outlaws “the use of asphyxiating, poisonous or other gases”, but does not clarify the point under consideration (paragraph 6.2, section 6, ST/SGB/1999/13). According to some authorities, riot control agents may lawfully be used in normal peacekeeping, counter-terrorist and hostage or downed pilot rescue operations. The same is true for controlling riots in occupied areas, prisoner of war camps, military prisons or other non-combat situations.¹⁰

In recent years, armies have shown increasing interest in *non-lethal weapons* (NLW).¹¹ The UK Manual of the Law of Armed Conflict gives this definition of NLW: “Non-lethal weapons are weapons that are explicitly designed and developed to incapacitate or repel personnel, with a low probability of fatality or permanent injury, or to disable equipment, with minimal undesired damage or impact on the environment”. Examples given by the Manual include “water cannon, plastic bullets, CS gas, stun grenades, electronic jammers and laser weapons”. They make it possible to select a target without causing death to civilians – a useful effect particularly when a military target is intermingled with civilian population. Another advantage is that they are, in principle, not deadly and thus tolerated more by the public opinion.

The issue with NLW is whether they are compatible with the prohibitions laid down by the CWC. NLWs cause only temporary incapacitation. Chemical weapons are weapons that cause death or other harm through the toxic properties of the chemicals used. It follows that an NLW may fall into the category of CW if it causes temporary incapacitation or permanent harm to humans through its chemical action. CS gas belongs to the category of riot control agents and its use is lawful, provided that it is not employed as a method of warfare. CS gases produce their effect on the skin and not inside the body. Other gases cause effects inside the body at the brain level, such as disorientation, sedation or even unconsciousness. Malodorants and calmatives are also referred to as examples of NLWs.

Many NLWs other than riot control agents can be considered chemicals employed for purposes not prohibited under the CWC, as stated in

¹⁰ K. Watkins, “Chemical Agents and ‘Expanding’ Bullets: Limited Law Enforcement Exceptions or Unwarranted Handcuffs?” in A. H. Helm (ed.) *The Law of War in the 21st Century: Weaponry and the Use of Force*, International Law Studies, Vol. 82, 2006, pages 205-206.

¹¹ See generally D. A. Koplow, *Non-Lethal Weapons, The Law and Policy of Revolutionary Technologies for the Military and Law Enforcement*, Cambridge, 2006.

Articles II, paragraph. 9. In this connection, the main problem is represented by the definition of “law enforcement”. For instance, execution of a death penalty with a lethal injection falls within the notion of law enforcement. On the contrary, the use of NLWs in warfare is not law enforcement. Yet there are grey areas between these two which are neither properly law enforcement nor warfare. For instance, a peacekeeping operation. What about the use of non-scheduled chemicals? On 26 October 2002, the Russian Federation employed non-scheduled chemicals to free hostages held by Chechen rebels in a theatre in Moscow. The anti-terrorist squad successfully accomplished its mission. Yet, a number of people were killed, both among the hostages and the terrorists: 2 were shot dead by the Chechnen rebels and 129 died as a consequence of the chemicals used. Others were later treated medically. The Russians used *fentanyl*, a non-scheduled chemical under the CWC. Yet the Russian raid was not brought up before the OPCW as a case of illegal use of chemicals and a CWC violation. The OPCW only asked the Russian authorities for information on the kind of chemical used.¹²

Conclusions

These controversial issues have to be clarified. The question of the legality of NLWs is one of them. Armies are developing this category of weapons. They are useful for law enforcement. But what about developing NLWs for military purposes or in connection with military purposes? The employment of NLWs for anti-terrorist operations could be particularly promising. However, it has to be remembered that chemical types and quantities should be consistent with purposes not prohibited under the CWC (Article II, paragraph. 1 a). There is a risk of proliferation. The forthcoming Review Conference should also take into consideration a number of issues related to tear gases, such as their use by peacekeeping forces, in time of occupation and in non-international armed conflicts. If this is clarified, the interest in convening an *ad hoc* convention for regulating NLWs will diminish.

The forthcoming CWC Review Conference could provide a useful opportunity. A review conference, by its nature, cannot amend the

¹² See J. Hart and al., “Chemical and Biological Weapon Developments and Arms Control”, in *SIPRI Yearbook*.

Convention. But it can help to clarify the most controversial issues. Scientific developments can be exploited by countries to circumvent the Convention, producing new chemicals that are not scheduled since they were unknown when the Convention was drafted. The framers of the Convention were aware of this danger and inserted a provision by which the Review Conference “may take into account any relevant scientific and technological development” (Article VIII, paragraph. 22). It is also important that the goal of universality be reached. Very few countries have not yet ratified the Convention. However their ratification is important for upholding the strategic balance, namely in the Middle East. But this is a task for diplomacy and not for a review conference.

3. VERIFICATION OF DISARMAMENT TREATIES

Michael Bothe

Introduction

On the occasion of the 10th anniversary of the entry into force of the CWC, it is appropriate to ask what distinctive features of this arms control and disarmament regime account for its relative success. The first is that the regime constitutes a non-discriminatory and serious combination of arms control and disarmament measures. This distinguishes the CWC from the NPT, which is highly discriminatory, and from the BWC, which is more symbolic than serious. The second feature is the system of compliance control. Its design compares favourably with that of other regimes.

It is the purpose of this paper to analyse the compliance system in a comparative perspective. The core of this system is made up of various fact-finding procedures, called verification. Any evaluation of the performance of the CWC regime has to address the issue of verification. This paper proposes to do so in a comparative perspective, i.e. analyse CWC verification together with other compliance systems in the field of arms control and disarmament. There is an even broader perspective behind this approach as compliance systems are an important part of other treaty regimes as well nowadays, in particular in the field of international environmental law. Modern procedures to ensure compliance with international law owe their progress mainly to two fields: international environmental law and the law of arms control and disarmament. Although the safeguards system developed under the NPT has in many

respects set the example, it is the CWC with its comprehensive verification approach which has established the standards, at least in the field of arms control, but perhaps also in other fields.¹ The arms control verification systems that have been negotiated but not put into practice (the BWC Verification Protocol – not adopted; the Comprehensive Test Ban Treaty [CTBT] – not ratified) clearly owe very much to the CWC system, despite all the differences which will be addressed. This paper tries to analyse the design of this system as a tool to deal with security concerns.

The CWC establishes verification systems in relation to four different obligations, namely the obligation to:

- destroy chemical weapons in the possession of a country;
- destroy old or abandoned chemical weapons;
- destroy or convert chemical weapons production facilities;
- ensure that toxic chemicals and their precursors are only used for purposes not prohibited by the Convention, i.e. are not diverted to weapons purposes.

The first three obligations are disarmament obligations. The latter is an arms control obligation, it is designed to prevent new armaments. It is in particular this latter one which invites a comparison with other treaty regimes. The other treaties to be considered are the NPT, the BWC (including its Draft Verification Protocol) and the CTBT. The NPT and the CTBT are arms control, not disarmament treaties. The BWC was originally, like the CWC adopted much later, both a disarmament and arms control treaty, but the negotiated verification system only addresses the arms control aspect.

A basic difference between the four treaty regimes is that the NPT, the CWC and the CTBT establish an elaborate compliance system, while the BWC as it stands provides only for a complaint to the Security Council. While the compliance system of the NPT, the CWC and the CTBT also ends with the Security Council, seizing the Council is a means of last resort. It is preceded by an elaborate fact-finding system

¹ For a comparison see Michael Bothe, Ensuring compliance with Multilateral Environmental Agreements – Systems of Inspection and External Monitoring, in U. Beyerlin/P.-T. Stoll/R. Wolfrum (eds.), Ensuring Compliance with Multilateral Environmental Agreements, 2006, pp. 247, at 249 et seq.

which normally would make recourse to the Council unnecessary. As to the BWC, the creation of such a system has been rendered impossible by the adamant opposition of the U.S. to a draft Verification Protocol which was very close to being adopted by the Fifth Review Conference in 2001/2002.² The provisions of the draft Protocol will nevertheless be included in the following comparative analysis of the design of arms control mechanisms.

1. The quest for efficiency: the reliability of measures to ensure compliance

In order to evaluate the verification systems in question, it is useful to recall the fundamental conflict of interest which they have to solve. There is a fundamental contradiction between the States' interests. On the one hand, the system must be reliable in order to provide security. Thus, it must be possible to ascertain all facts relevant in respect of compliance. This requires a certain intrusiveness of the system. On the other hand, States have an interest in not being exposed to intrusive scrutiny. At least some of that interest is legitimate. It starts with the safety of the processes in which relevant materials are handled and keeping commercial and industrial secrets and ends with military security. These conflicting interests must be balanced in the design of the fact-finding procedures.

The major elements of this balance will be described in the following section.

The legal bases for the fact-finding procedures are somewhat different. The NPT (Art. III) only establishes the duty of the non-nuclear weapons states (NNWS) to conclude an agreement with the IAEA for the purpose of verifying their compliance with the treaty obligations. Although the IAEA had already conducted some supervision of nuclear activities before the conclusion of the NPT based on guidelines published in the Information Circular (INFCIRC) 66/Rev.2, a new system was designed

² For a statement of the course of events see the Final Document of the Fifth Review Conference, BWC.CONF.V/17; for an analysis of the draft Additional Protocol to the BWC see Onno Kervers, Strengthening Compliance with the Biological Weapons Convention: the Draft Protocol, 8 *Journal of Conflict & Security Law* 161 (2003).

for the safeguards under the NPT in the form of a model agreement (INFCIRC 153).³ This was then developed in a substantial way through a Model Additional Protocol in 1997.⁴ While these model agreements shape the system, the legal basis for each state remains the individual bilateral agreement. In the case of the CWC and the CTBT, on the other hand, the essential content of the verification system is regulated in the multilateral treaty itself and its annexes. The same would apply for the BWC Verification Protocol.

2. The accommodation of conflicting interests in compliance regimes: intrusiveness vs. secrecy

The balance between the interests just described is reflected in the design, i.e. in a number of details of the inspection regimes. They are all different. It has to be remembered that the content of any verification system depends, first of all, on the content of the relevant obligation. The CTBT relates to a particular activity, namely explosions which may constitute a nuclear weapons test. This has a definite impact on the design of the verification system. The other three regimes are concerned, instead, with diverting materials or facilities from a legitimate civilian to a prohibited military use. But as the materials and facilities are different, the verification systems most also be different.

For obvious practical reasons, the CTBT can rely to a large extent on a non-intrusive verification method, namely long-distance monitoring, e.g. through the collection of seismic and other data.⁵ The other systems essentially rely on on-site verification.

In this respect, one basic distinction is the difference between routine inspections on the one hand and *ad hoc* (challenge) inspections on the other. In respect of the former, the general framework of the inspections is known beforehand. It is thus relatively easy to design a sophisticated system drawing a fine balance. That being so, the basic problem of a system limited to routine inspections is that there can be facilities which

³ Torsten Lohmann, Die rechtliche Struktur der Sicherungsmaßnahmen der Internationalen Atomenergie-Organisation, Berlin 1993, p. 103 *et seq* on the background of this change.

⁴ Draft Model Protocol to Strengthen and Improve the Effectiveness and Efficiency of the IAEA Safeguards System, May 15, 1997, 36 ILM 1232 (1997).

⁵ The International Monitoring System, Article IV (B) CTBT.

are outside the scope of these inspections. The NPT, the CWC and the BWC Verification Protocol use routine inspections, the CTBT does not. It provides only for *ad hoc* on-site inspections.⁶

There are four key elements in the verification regimes which are crucial for the balance of interests:

- scope of access;
- scope and means of fact-finding;
- confidentiality;
- reactions to stated or alleged violations.

As to the first element, controlled access, it is essential that on-site verification activities be possible only in relation to certain defined places. It is only at these places that the State is subject to the intrusive control of on-site inspections. As to the scope of fact-finding, the essential point is that information relevant for the purpose of the verification process is targeted, to the extent that it is really necessary. That information must not become known to persons outside the circle of those who really need to know. This has to be ensured by appropriate guarantees. The fact-finding ends with a statement of facts by the inspecting body. The question of what happens if that statement points to some irregularity is the most delicate part of the system.

2.1 Routine inspections

2.1.1 Controlling access

Declarations. All four types of routine inspections under the CWC are based on declarations. The locations where chemical weapons are stored as well as the quantities of these weapons, the existence of old or abandoned chemical weapons on the territory of a State, and the location of chemical weapons production facilities have to be declared.⁷ These declarations are the starting point of the verification process.⁸

As to the arms control element of the CWC, the routine verification process is designed to ascertain whether certain chemicals which have a

⁶ Article IV (D) CTBT.

⁷ Art. III CWC.

⁸ Verification Annex, Parts IV and V.

potential for being used for weapons purposes (but which also have peaceful applications) are being diverted from civilian to forbidden military uses. For this purpose, the States are obliged to declare all facilities where specific chemicals are handled in specific quantities.⁹ It is in relation to these sites that routine verification takes place. This gives the State a certain factual control over what is and what is not subject to the verification process, and makes the sites to be inspected known beforehand.

The draft BWC Verification Protocol also relies on an elaborate system of declarations.¹⁰ But as the scope of the facilities to be declared is quite extensive, the ensuing verification only covers a selected part of the facilities.¹¹ There are randomly selected transparency visits, voluntary assistance visits and voluntary clarification visits.

In the case of the NPT safeguards according to INFCIRC 153, the inspections take place in certain declared facilities at certain strategic points only.¹² After the experience with Iraq and North Korea which proceeded their weapons' programs outside these declared facilities, the declaration duties and the rights of access were expanded in the Additional Protocol. Under certain conditions, a right of access exists even in relation to undeclared facilities.

The examples show that there are two problems inherent in a "declaratory" system: The first is whether the declarations are complete, the second whether all or only a selection of the declared sites are to be inspected. As to the first problem, the correctness of the declarations made under the CWC are usually monitored, but the only way to ascertain whether all relevant sites are declared is through challenge inspections.¹³ The selection process is regulated in various ways: comprehensive inspection of all sites, random selection, risk related selection, selection based on quantitative thresholds.

Key data. Another element limiting the verification process is its content. The fact-finding is limited to certain key data. In the case of the CWC arms control regime, the point of departure for identifying the key data are lists of chemicals known to possess weapon potential. The

⁹ Verification Annex, Part VI sec. D, Part VII sec. A, Part. VIII sec. A, Part IX sec. A.

¹⁰ Art. 4 BWC Prot.

¹¹ Art. 6 BWC Prot.

¹² Lohmann, op. cit. p. 103, 205 et seq.

¹³ See below 3.2.

routine on-site inspections are designed to assess the balance (input, consumption, output) of these relevant chemical substances handled in a particular facility. This is thought to be the decisive indicator by which any diversion to prohibited purposes can be detected or excluded.

The concept of the NPT safeguards is based on similar considerations: the diversion of materiel used for peaceful purposes to weapons purposes should be excluded by controlling the materiel balances of the nuclear fuel cycle. This is the core element of the INFCIRC 153 verification system.¹⁴ As it became clear that the assumption underlying the system was not quite true, i.e. that the verification of materiel balance sheets was sufficiently reliable as an indicator of compliance, the scope of fact-finding was substantially expanded by the Additional Protocol. One of the difficult problems of the BWC is that the relevant materials are not really known. Technologically, the field of biological warfare is much more open to new developments. Nevertheless, the draft BWC Protocol defines controlled substances and facilities in a very elaborate way.¹⁵

2.1.2 Limited publicity

The process of verification is strictly confidential. Confidentiality is indeed a crucial issue of all verification systems. As a matter of principle, the data remain in the Secretariat which is obliged to guarantee their confidentiality.¹⁶

2.2 Challenge inspections

The possibility of challenge inspections, i.e. on-site inspections performed on the request of a State which doubts whether another State complies with its obligations, exists in the CWC, the BWC draft Protocol and the CTBT. Under the NPT, their role is to a certain extent fulfilled by special inspections which may, after consultations between the Secretariat and the State concerned, be decided by the Board of Governors.¹⁷

¹⁴ Lohmann, pp. 119 et seq.

¹⁵ Art. 4 and Annex A as well as Appendices.

¹⁶ NPT: Art. 15 Model Additional Protocol; CWC: Annex on the Protection of Confidential Information; BWC Prot.: Art. 11 and Annex C on confidentiality provisions. .

¹⁷ Lohmann, p. 209; INFCIRC 153, § 18.

2.2.1 The obligation to submit to challenge inspections

Under the CWC and the CTBT, the obligation to submit to challenge inspections is rather strict. Under the CWC, there is only a limited control against abuse exercised by the Executive Council.¹⁸ Under the CTBT, the consideration of the Executive Council in admitting a request is a rather formal one.¹⁹ In the case of the BWC draft Protocol, the screening of a request for an “investigation” is more complex.²⁰

2.2.2 Measures of protection

On the other hand, the State which is subject to these inspections may take certain measures to protect data. The rules concerning access to the inspected sites are very detailed. The inspected State may limit access in certain cases (managed access) (Part X of the Verification Annex, nos. 46 et seq). A similar regime applies to investigations pursuant to the CTBT²¹ and the BWC draft Protocol.²²

2.2.3 Limited publicity

As in the case of routine inspections, the process is strictly confidential.

2.3 *Reactions*

The CWC and NPT verification systems are somehow based on the idea of a self-fulfilling prophecy: their very existence should induce States to comply and not to cheat. The fact that on-site inspections are indeed carried out considerably increases the political cost of non-compliance as the possibility of passing unnoticed decreases. Nevertheless, the issue of reactions to non-compliance remains a serious one.²³

¹⁸ Art. IX para. 17

¹⁹ Art. IV paragraphs 39 et seq. CTBT and Part II para. 41 of the Additional Protocol.

²⁰ Art. 9 para. 23 BWC Prot.

²¹ Art. IV paragraph 57 (b) CTBT and Part. II, paragraphs 86 et seq. of the Additional Protocol.

²² Art. 9 Para. 23.

²³ Alan Rosas, Reactions to non-compliance with the Chemical Weapons Convention, in Michael Bothe/Natalino Ronzitti/Alan Rosas (eds.), *The New Chemical Weapons Convention – Implementation and Prospects*, The Hague et al. 1998, pp. 415 et seq., at 416.

The path from verification to reaction to non-compliance is somewhat different under the different treaty regimes.

Under the CWC, inspections are a task of the Technical Secretariat (TS). The results, in the absence of any general reporting duties, thus remain within the ambit of the Secretariat. Where the TS, however, has, as a result of the verification activities, “doubts, ambiguities or uncertainties about compliance”,²⁴ it shall inform the Executive Council (EC). The EC may then, *inter alia*, “request the State Party to take measures to redress the situation”.²⁵ If this request is not met, it may, *inter alia*, bring the matter to the attention of the Conference of the States Parties (CSP). The CSP shall “take the necessary measures to ensure compliance” with the Convention.²⁶ For that purpose, the CSP has three options:

- it may suspend the State’s “rights and privileges under this Convention”;
- it may “recommend” “collective measures ... in conformity with international law”;
- it may bring the issue “to the attention of” the United Nations General Assembly (UNGA) and the UN Security Council (SC).

What the UNGA and/or the SC can do is a matter of their general powers and is not determined by the CWC. All in all, this system of enforcement is not really, except for the fact that behind everything is the Security Council, entitled to take enforcement action under the Charter. In this respect, the systems established by the CTBT²⁷ and the BWC draft Protocol are very similar.²⁸

In the case of the NPT, the technical evaluation of the information received through the verification process is performed by the Secretariat. If a positive finding of compliance by the Secretariat is not possible, the Director General reports to the Board of Governors.²⁹ The latter may request the state, by a binding decision,³⁰ to remedy the situation. In the case of persistent non-compliance, the Board of Governors, according to Art. XIII.C of the IAEA Statute,

²⁴ Art. VIII paragraph 40 CWC.

²⁵ Art. VIII paragraph 36 CWC; art. 6 para. 104 draft BWC Prot. is comparable.

²⁶ Art. VIII paragraph 21 (k).

²⁷ Art. IV paragraph 65, V CTBT.

²⁸ Art. 9 (I), 12. BWC Prot.

²⁹ Lohmann, p. 236.

³⁰ Lohmann, p. 244.

“shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations ...”

As in the case of the CWC, these bodies’ powers concerning further action depend on the Charter of the United Nations.

2.4 The special arms control measures decided by the Security Council: Iraq and resolution 1540

Unlike the treaty regimes just described, the inspection system imposed upon Iraq by the armistice resolution of the Security Council in 1991³¹ was unlimited in law, limited in practice only by the lack of co-operation of the “host” State. After many had assumed that it was a failure and that Iraq still had weapons of mass destruction and a nuclear weapons programme, it was found that the system had indeed been effective and had discovered everything there was to discover.

The supervision system was established and modified by a series of UNSC resolutions, beginning with resolution 687 (1991), and then continuing in particular with resolutions 1284 (1999) and 1441 (2002). The legal basis for these resolutions was Art. 41 (non-military enforcement measures), based on the assumption that the suspected presence of WMD in the possession of Iraq constituted a threat to the peace.

Security Council resolution 1540 of 28 April 2004, which contains measures to stop the proliferation of WMDs, is different. It expressly reserves concerning existing treaty regimes. Its compliance control system does not include any on-site inspections or the like; rather, it is based on a system of State reports.³²

2.5 Evaluation

Treaty regimes serve two different functions. The first is verification as a means of confidence building. Both the CTBT³³ and the BWC draft Protocol³⁴ provide for particular confidence-building measures in connection with verification. Participation in the system instils confidence and gives assurances of security. In this respect, the systems can be considered

³¹ Resolution 687 of 3 April 1991.

³² Paragraph 5 of the resolution.

³³ Art. IV paragraphs 57 and 68 CTBT.

³⁴ Art. 15 BWC Prot.

successful. The CWC system works quietly and smoothly, with problems lying in the details, not in the fundamental issues.³⁵ The safeguard system of the NPT covers all NNWS. It is significant for the acceptance of the system that Brazil, Argentina and South Africa have joined it after having renounced their nuclear option. The members of the former Soviet Union, i.e. of a NWS, also gave up nuclear armament and joined the NPT as NNWS. This would not have been possible had the safeguard system not fulfilled its confidence-building function, at least *grosso modo*. The question mark thus left brings us to the second function.

The second function is the prevention of cheating. In the light of the compromise character of the systems which has been stressed above, one could not expect them to be absolutely fool-proof. There have been two cases of cheating – one can say two too much and conclude that the NPT safeguard system has not been successful enough. North Korea started cheating while it was still a party to the NPT. Iraq cheated, too, and for a while successfully. It is only after the general Security Council verification system was imposed on Iraq that the programme was discontinued. This shows the pros and cons of the current situation: the existing verification systems are not an absolute guarantee against cheating, but the establishment of a system as intrusive as the measures taken against Iraq is completely unacceptable as a general principle.

3. Conclusions

How effective are the legal restraints on unlawful armaments and in particular on the proliferation of weapons of mass destruction? The answer seems to be the usual optimism/pessimism paradigm: Is the glass half full or half empty?

The C-weapons disarmament and arms control system seems to be in a relatively stable condition. The safe destruction of the existing stocks proceeds, not without problems, but it works. The inspection system

³⁵ According to the annual reports of the OPCW, declarations have been submitted as required, with some delays, as to chemical weapons possessed by States, chemical weapons production facilities, riot control agents, facilities handling specific chemicals. The destruction of chemical weapons and production facilities proceeds (in some cases with delays) and is verified. The routine inspection system is working with certain delays and sometimes subject to budgetary restrictions.

designed to prevent diversion of chemical substances from peaceful to military purposes has started functioning. No major problems are reported.

The B-weapons system, on the other hand, relies for the time being exclusively on hope. In the absence of anything like a serious system to ensure compliance, the treaty remains symbolic rather than a real factor restraining proliferation.

The NPT is of doubtful design. One may conclude that it has not contained the circle of nuclear powers, but restrained its growth. Even though it is one of the multilateral treaties with the broadest participation, it lacks the necessary universality because of the factual importance of the absentees. Its compliance system has worked reasonably well, but timely discovery of non-compliance has not always been possible. The problem of governments pursuing a nuclear option remains and may even become more acute. And whether the treaty can really prevent nuclear weapons from getting into private hands also remains to be seen. The fact that the NPT Review Conference held in 2005 was unable to take any substantive decision on the various problems of the NPT shows that this treaty regime is in crisis.

Even when and to the extent that verification systems work, reaction to non-compliance or to armament by non-participants remains an open issue. Legally speaking, it is in the hands of the Security Council – with all the problems that entails. The unilateral option has also been used, and remains a threat in the background.³⁶

In a way, the CWC still stands alone as a model. It creates a non-discriminatory disarmament regime (a distant and neglected goal of the NPT) strictly controlled by an on-site verification system, as well as arms control measures equally under strict on-site control using both routine and *ad hoc* inspections. Above all, the system works despite the technical difficulties and the transaction costs involved.

³⁶ See the “Proliferation Security Initiative” announced by President Bush on 31 May 2003.

4. MAKING PROGRESS IN CHEMICAL WEAPONS DESTRUCTION

Finn Torgrimsen Longinotto

The declared Chemical Weapons Stockpiles worldwide (Table 1), which are the concern of the Chemical Weapons Convention (CWC) and amount to about 73,500 metric tons (MT), are situated in six countries. About 97 percent of the total is held by the United States (US) and the Russian Federation (RF) alone, with the balance in four other countries, as is shown in the table below.

Tab. 1 - Declared CW Stockpiles in 6 Countries, 97 percent in US and RF

Russia	39,965 MT
Albania	16 MT
U.S.A.	31,495 ST
India	1,044 MT
A State Party*	300-1,000 MT
Libya	24 MT

The declared US stockpile originally consisted of 31,495 short tons (ST). At this point, a cautionary note about numbers is in order. Numbers should not be taken too literally in documents published on this subject: sometimes, metric tons and short tons are not differentiated and added together indiscriminately; at other times stockpile numbers may refer to amounts declared before, or after, the entry into force of

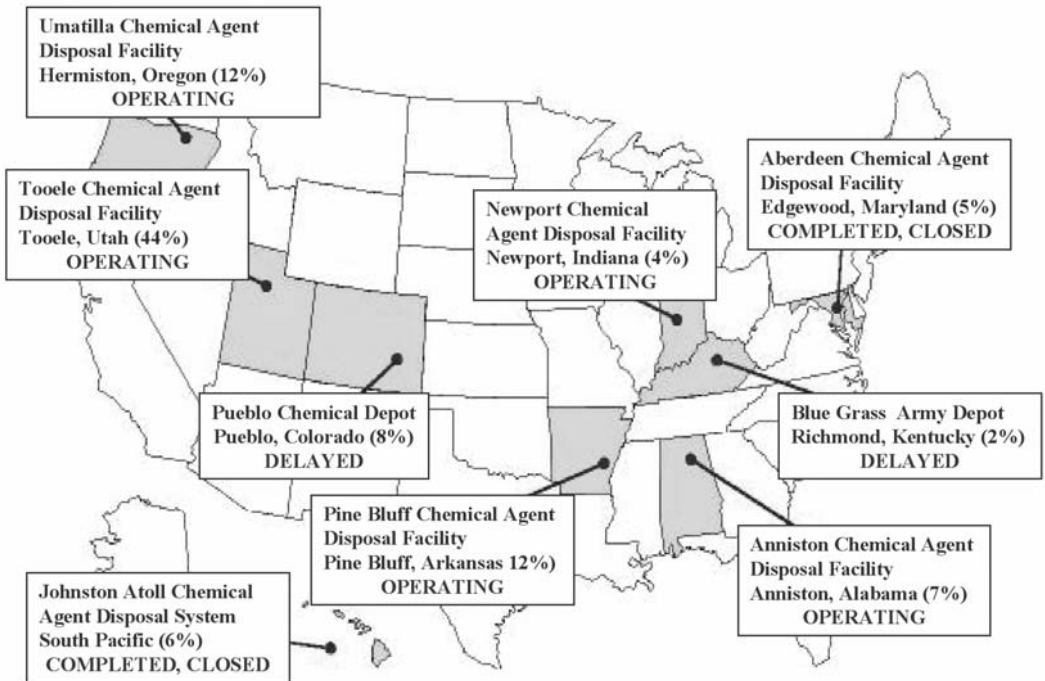
* According to OPCW jargon.

the CWC. Similarly, when looking at numbers dealing with countries' pledges, commitments and money spent may not be differentiated, without taking into account accounting differences arising between in-country (RF) and home-country spending, or currency changes, such as Euro/US dollar/Canadian dollar fluctuations.

Going back to the declared US stockpile, Map 1 shows the 9 US sites, 2 of which have been completed and dismantled – Johnston Atoll on the bottom left, and Aberdeen, Maryland, near Washington DC; 5 sites are now operating; and 2 have been delayed because of funding problems – Blue Grass, Kentucky, and Pueblo, Colorado.

On the far left of the map is the largest of the operating facilities in Tooele, Utah, which alone accounts for 44 percent of the total US stock-

**Declared U.S. CW Stockpile: 31,495 Short Tons
(9 stockpile sites in 8 states and Johnston Atoll)**



pile, twice the size of the largest Russian stockpile. This illustrates the first of two major differences between the US and RF stockpiles: the diversity in size of the US stockpiles, while the RF stockpiles are more evenly spread. The second difference is the stockpiles' make-up: unlike the Russian stockpiles, the US stockpiles often contain explosives and propellants, making them more complex and therefore more costly to disassemble and destroy.

Table 2 shows the different technologies that have been and are being used to destroy the US stockpiles, and highlights the ongoing dispute between incineration, i.e. thermal processing, at 5 of the 9 plants, and neutralization, i.e. wet processing, at 4 of the plants. This points to a second dispute, which is what to do with the waste product of the first stage neutralization process: ship it to waste treatment facilities elsewhere or treat it on-site. It is worth noting that the number of destruction facilities, nine, rose from the original three because of resistance to shipping materials through communities and sometimes across states for treatment at the three central destruction facilities originally planned over twenty years ago.

Tab. 2 - U.S. CW Destruction Program

9 on-site destruction facilities:

5 incinerators (Johnston Atoll, Utah, Oregon, Alabama, Arkansas)

4 neutralization facilities (Maryland, Indiana, Colorado, Kentucky)

Table 3 shows the percentages destroyed to date (as of 11 March 2007) at each of the 9 US facilities. The last four deserve attention. At Newport, Indiana, although the VX nerve agent has been 45 percent neutralized, there is a problem of what to do in the 2nd stage, that is, how to dispose of the "reaction mass" (there seem to be "secret" plans to ship it to Texas, across 8 state borders). This is a very different situation from Aberdeen, Maryland where, following an accelerated program after 9/11, secondary waste was shipped with little public comment through Delaware to a Dupont industrial waste treatment facility in New Jersey. Pueblo, which like Blue Grass is on hold for lack of funding, contains mustard agent, partly weaponised from the 1950s, which citizens have made clear they want treated on-site, not stored or shipped as secondary waste anywhere near local population centers. Finally,

Blue Grass, the smallest stockpile but perhaps the most dangerous as it is all weaponised, faces a projected completion date of 2023, which places it 11 years behind schedule. The amount of extra funding estimated to jumpstart construction at these two plants is an additional US\$ 200 million annually for the next several years, a modest sum compared to the cost and importance of the overall program.

Tab. 3 - US CW Demilitarization (11 March 2007)

Johnston Atoll	1990-2000	100 percent destroyed
Aberdeen	2003-05/07	100 percent destroyed
Tooele	1996-2016	59 percent destroyed
Anniston	2003-2016	27 percent destroyed
Umatilla	2004-2018	24 percent destroyed
Pine Bluff	2005-2016	11 percent destroyed
Newport	2005-2012	45 percent neutralized
Pueblo	2012/13-2018/20	0 percent (2,520 ST)
Blue Grass	2012/13-2023	0 percent (630 ST)

Table 4 shows the deadlines for complete destruction of each of the six countries' stockpiles. With the RF having destroyed 20 percent and the US 44 percent so far, both are "officially" to complete 100 percent destruction by 29 April 2012; India, with about 70 percent so far, is to complete by 28 April 2009; A State Party (according to OPCW jargon) with 80 percent to date, is to complete by 31 December 2008; Albania with about 20 percent complete, is to finish destruction by June or July 2007 (29 April 2007 deadline); and Libya, which has not yet begun destruction, is to complete it by 31 December 2010.

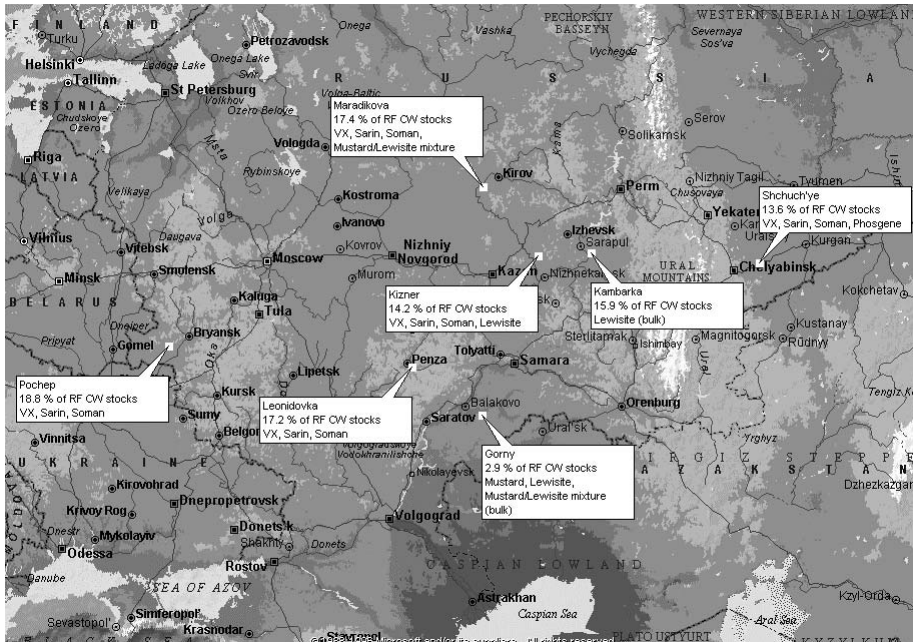
Tab. 4 - CW Demil Deadlines

RF	29 April 2012
US	29 April 2012
India	28 April 2009
A State Party*	31 December 2008
Libya	31 December 2010
Albania	29 April 2007 **

* According to OPCW jargon.

** June/July 2007 likely completion

The official near-term deadlines are now: US 45 percent by 31 December 2007, about another 1,000 ST which is likely to be met; RF 20 percent by 29 April 2007, which has been officially met following the recent agreement announced by the Director General of the Organization for the Prohibition of Chemical Weapons (OPCW), and 45 percent by 31 December 2009. Though the US and RF both face the 100 percent deadline of 29 April 2012, neither is expected to make it. Among the four smaller possessor countries, three will likely meet their deadlines, while Albania is expected to just miss the deadline date, but for purely technical reasons, not for lack of good will.



Map 2 shows the locations and CW contents of each of the RF's 7 stockpiles: one – Gorny – has been completed; two – Kambarka and Maradikova (also known as Maradikovsky or Mirny) – are operating; one – Shchuch'ye – is delayed; and the remaining three – Pochep, Leonidovka and Kizner – are still in the planning stage.

The RF sites' projected destruction dates together with tonnage of CW are shown in Table 5.

Tab. 5 - Russian CW Demilitarization

Gorny	Dec 02 - Dec 05	(1,142 MT) completed
Kambarka	2005 –2009	(6,349 MT)
Maradikovsky	2006 – 2010	(6,890 MT)
Shchuch'ye	2008/2010-2012	(5,456 MT)
Pochep	2008 – 2012	(7,498 MT)
Leonidovka	2008 – 2012	(6,885 MT)
Kizner	2009 – 2012	(5,745 MT)

All seven Russian stockpiles (Table 6) are designed with neutralization destruction facilities. Yet there is a problem of transportation here as well. In this case they are considering shipping live agent and weapons from Kizner to Shchuch'ye, where about 50 percent of the plant has been completed, and transferring neutralized lewisite from Kambarka to Gorny. The Leonidovka facility, one of the three still in the planning stage, was to be constructed by Germany, but will now be purely Russian.

Tab. 6 - R.F. CW Destruction Program

7 neutralization destruction facilities:
1 site – Gorny, Saratov Oblast – destroyed (1st stage process)
2 sites – Kambarka, Udmurtia and Maradikovsky, Kirov Oblast – operating
1 site – Shchuch'ye, Kurgan Oblast – 50 percent constructed
3 sites – Pochep, Bryansk Oblast; Leonidovka, Penza Oblast; and Kizner, Udmurtia – in early planning and preconstruction

It is clear from Table 7 that Russia still faces a considerable challenge to complete its chemical weapons destruction. Indeed, experts believe it is unlikely that it, like the US, will be able to meet all its obligations under the CWC. Russia met its 1 percent deadline in April 2003, albeit after a three-year extension from April 2000. Just a short time ago, Russia declared 19 percent destroyed but only 16 percent had been credited by the OPCW. So the recent agreement with the OPCW allowing full credit as “destroyed”, subject to future verification, of the full 20 percent is good news. The five and a half year extension to 31 December 2009 for the 45 percent to be destroyed still stands, as do the one-time five-year extensions requested by both the US and the RF for 100 percent destruction by 29 April 2012. However, in April 2006, the US Department of Defense announced that the US would not be able to meet this deadline.

Tab. 7 - Challenge for Russia

Completed 1 percent CWC deadline April 2003 (after 3-year extension from April 2000)
Received new deadline for 20 percent to 29 April 2007 (5-year extension from 2002)
Received new deadline for 45 percent to 31 December 2009 (5.5 year extension from 2004)
Like the US, the RF requested a one-time extension for the 100 percent deadline to 29 April 2012 (5 year extension from 2007)

1. The economic challenge

Part of the problem is economic. Initial cost estimates, especially in the US which started its CW destruction so much earlier, were wildly off the mark. The estimated cost of total destruction of the US stockpile has risen from US\$ 2 billion to around US\$ 40 billion. The Russian estimate for total destruction of its CW stockpile, established a good ten years after the US estimate, has risen from US\$ 5-6 billion to US\$ 8-10 billion. In order to continue with the scheduled destruction, these economic problems have to be tackled. Global Partnership (GP) funding and the implementation of individual country pledges are top priorities. We also

need to promote public involvement and transparency – the work of our Green Cross public outreach offices – as an essential component for all stakeholders to “buy into” and support CW destruction. Although community investment is sometimes perceived as a purely Russian responsibility, we encourage countries to look beyond “inside the fence” limitations and help meet social and infrastructural needs of communities surrounding the CW stockpiles. There are plenty of examples, in both the US and Russia, of paralysis of projects when these needs have been ignored. Obviously emergency preparedness is paramount, as is communication to the local populations. The same is true of environmental and public health protection.

Total GP funding pledges (Table 8) illustrate the predominance of the US’s US\$ 10 billion and Russia’s roughly US\$ 6 billion pledges, as well as those from the remaining G8 state parties and the European Union. Following the US and RF itself, the other principal donors are Canada, Germany, Italy and the UK. Non-G8 countries are also important GP donors. As noted earlier, there are often inconsistencies with the numbers, and with Euro pledges converted at current rates (2007), the US\$ 20 billion goal appears to have been easily exceeded. Yet turning pledges into action is the problem.

Tab. 8 - Global Partnership – Total Funding

USA	US\$ 10 billion
Russia	US\$ 6 billion
Other G8 pledges:	
Germany	Euros 1.5 billion
Canada	Cdn \$ 1 billion
EU	Euros 1 billion
Italy	Euros 1 billion
France	Euros 750 million
U.K.	US\$ 750 million
Japan	US\$ 200 million

Though not complete, Table 9 shows the funding by the GP, with the exception of Russia, for chemical weapons destruction alone (amounts pledged and in some cases spent). Germany has been the biggest actual spender to date, having completed the construction of the Gorny facil-

ity, where destruction of the entire stockpile has been completed, and the construction of the Kambarka facility, which is now operating. Germany's planned construction of the Leonidovka facility has been cancelled by the RF's Federal Agency of Industry (FAI). Instead, after an intergovernmental agreement concluded on 15 March 2007, Germany will spend "up to" 140 million to construct a complete building in Pochep, with operation scheduled to begin in February 2009. Italy had earlier pledged 320 million for Pochep, so it is not clear how this pledge will be affected, or where it will be redirected.

Tab. 9 - Global Partnership – CW Funding

U.S.	\$ 1.039 Billion	Canada C\$ 98.9 million
France		Euros 250 million
Germany		Euros 300 million
Italy		Euros 365 million
Netherlands		Euros 7.6 million
	(+Euros 4.4million "under consideration")	
Norway		Euros 100 million
European Union		Euros 18 million

The reasons for the CW destruction delay are well known. At the top of the list is financing, from the US, the RF and the GP. In the US, Pueblo and Blue Grass are under-funded and money has been held up for CTR (Cooperative Threat Reduction) funding of the Russian Chemical Weapons Destruction program. As we know, the RF started its own CWD funding ten years late. Technology issues have also caused delays, such as for the second stage processing of neutralized agents. Mismanagement and the inability to resolve the transportation issue – whether to treat on-site or ship elsewhere – is the third main reason for delay. Finally, the political situation of mistrust and mutual blame between the US and the RF has also contributed to setbacks.

The implications of missing the CWC deadlines (Table 13) are not yet known, and will doubtless be a matter for discussion at the 2nd CWC Review Conference in 2008. As seen, of the smaller possessor State Parties, one, Albania, is close to making the April 2007 deadline, while three, India, Libya and A State Party (according to OPCW jar-

gon), will most likely meet their deadlines successfully. Both the major possessor States, Russia and the US, are expected to miss the 2012 deadline by 4 to 12 years (although Russia still officially insists that it will meet it).

In conclusion, what needs to be done is to

- emphasize the critical importance of all donor states to fully fund and implement their ongoing CW destruction programs;
- increase awareness and promote public discussion of the challenges involved in meeting CWC deadlines, both at CWC 10th Anniversary events, and elsewhere. Related current events, such as the use of chlorine gas mixed with high explosives in Iraq, should be underlined to heighten awareness;
- emphasize the universality of the CWC, and put pressure on the thirteen countries which still need to be brought in, particularly North Korea, Egypt, Israel, Lebanon, Somalia and Syria;
- improve US-RF relations and overcome recent differences.

There is a need for a renewed commitment to CW destruction. The ultimate goal, which is to abolish all chemical weapons globally, must be kept in sight. This can best be done by promoting transparency and taking no short-cuts on public health or the environment for budgeting or any other reason.

5. FROM PAPER TO REALITY: VERIFICATION AND COST ISSUES

Alexander Kelle

Introduction

When key provisions of the Chemical Weapons Convention (CWC) were negotiated during the 1980s, it became clear that the destruction of chemical weapon stockpiles and their verification would be one of the core tasks to be accomplished once the treaty entered into force. Accordingly, written into the treaty were not only the general principles on which such activities would be based, but also a set of rather detailed rules and procedures for the implementation of the disarmament obligation of CW possessor States.

These chemical weapon (CW)-related stipulations, as set out on paper, will be briefly reviewed in the first section of this paper. The second section will then look into some aspects of the operationalisation of the Convention's CW destruction provisions, starting with the description and analysis of an early episode in the CWC's implementation involving a prolonged debate about how to calculate the reimbursable part of the salary of an inspector verifying CW destruction in possessor States. Since then, the magnitude of the task at hand has become increasingly clear: this applies in particular to the CW stockpiles of the Russian Federation and the US. Related problems and issues surrounding the other CW possessor States will be discussed in the subsequent section of the paper. Its penultimate part will then address some of the remedial action that has been taken to address delays in the CW destruction schedule. The paper will conclude with a summary of the argument and

an attempt to draw some lessons for the still outstanding task of completely eliminating chemical weapons.

1. Verification on Paper – CWC Provisions on Disarmament and Its Verification

The destruction of all chemical weapons (CW) stockpiles as well as CW production facilities are among the key obligations contained in the CWC. They are mandated by Article I, paragraph 2 and paragraph 4, respectively. In order to allow for the verification of these destruction activities, Article III, paragraph 1 (a) of the CWC requires CW possessor States *inter alia* to declare their CW stockpiles and provide a general plan for destruction. Similar provisions apply to CW production facilities.

Articles IV and V, together with Parts IV (a) and V of the Verification Annex, deal systematically with the rules applying to and procedures to be followed by States Parties possessing either CW or CW production facilities (CWPF). Chemical weapons stockpiles must be destroyed and CWPF must be either destroyed or converted for activities not prohibited under the Convention. Importantly, Articles IV and V provide for on-site inspection and monitoring of all locations at which chemical weapons are stored or destroyed. This provision mandates the Organisation for the Prohibition of Chemical Weapons (OPCW) to be present whenever and wherever chemical weapons are being destroyed. Furthermore, the movement and storage of chemical weapons cannot be undertaken without informing the OPCW.

According to Article IV, paragraph 6, CW must be destroyed within 10 years of the entry into force (EIF) of the Convention – by 29 April 2007 – and this destruction must begin within two years of the Convention entering into force for a given state party. Destruction or conversion activities at CW production facilities must begin within one year of the Convention entering into force for a State Party, and be completed within 10 years. On the way towards the total destruction of all CW holdings, intermediate destruction targets are established in Part IV (a), paragraph 17 of the Verification Annex to be achieved three, five and seven years after the CWC's EIF. In the event that a State Party is unable to meet either any of the intermediate destruction deadlines or the 10-year deadline for complete CW destruction, the Verification Annex in Part IV (a), paragraphs 20 to 23 and 24 to 28, respectively, spells out the procedures to be followed for deciding on an extension of the original CW destruction deadlines. In case of complete CW destruction a max-

imum extension of up to five years – until April 2012 – can be granted by the Conference of States Parties (CSP) of the OPCW.

Lastly, Article IV, paragraph 16, and Article V, paragraph 19, stipulate that the cost of destruction of both CW and CW production facilities, as well as monitoring and inspection must be met by the CW possessor State itself. This is accomplished in part by reimbursing the OPCW for the costs incurred during on-site monitoring and inspections.

2. CW Destruction and Its Verification in Practice

2.1 *Teething Problems: Just What is an Inspector's Salary ...*

The exact meaning of this latter provision of the Verification Annex was contested during the initial phase of CWC implementation. The bone of contention was the question what exactly constitutes an inspector's salary. Notwithstanding a provisional compromise found during the first CSP in May 1997 in the absence of the Russian Federation, the debate on the reimbursable part of an inspector's salary was kept alive during the inter-sessional period.¹ In order to overcome the impasse during the second session of the Conference, a temporary solution for the 1998 OPCW budget was negotiated, leaving an ever wider margin for Member States' interpretations.²

What became increasingly clear during these debates was the desire of the big CW possessor States to keep the reimbursable part of verification costs for the destruction of CW and CW production facilities as small as possible. Thus, after the second session of the CSP there was considerable concern that the wording agreed to might allow an interpretation by the Russian government that inspectors' salaries do not have to be reimbursed and only the "operational" verification cost would have to be covered. This Russian approach to cost of verification was fully consistent with a distinction introduced by the then Soviet representative to the Conference on Disarmament (CD) during the negotia-

¹ See the decision of the First Session of the Conference of State Parties contained in *Decision. Programme and Budget and Working Capital Fund*, document C-I/DEC.73, The Hague, 23 May 1997.

² See the decision of the Second Session of the Conference of State Parties contained in *Decision. Programme and Budget for 1998 and Working Capital Fund*, document C-II/DEC.17, The Hague, 5 December 1997.

tion of the CWC. In a statement, the budget of the future organisation was divided into two categories: administrative expenses which cover personnel, administrative activities, meetings, and the like; and operational expenses which, on the contrary, are those “expenses required for systematic international verification *on the territory of that State party*”.³ According to the compromise that was eventually reached during the ninth meeting of the Executive Council “a daily salary will be calculated by dividing an annual base salary by 365 days”; in competing calculation schemes it was proposed to divide the annual base salary by smaller numbers of actual working days or even working days minus vacation periods and the like. Yet, since these alternative models for calculating the daily salary of an inspector would have resulted in higher figures for reimbursement to the Organisation, they proved unacceptable to the larger CW possessor States. In a similar vein, the Executive Council recommended to the Third Session of the CSP “to include reimbursement for the involvement of members of an inspection team in inspection planning before and inspection report generation after an inspection.”⁴ According to the compromise finally worked out, for CW storage and production facilities the inspected States Parties will have to reimburse 10 inspector-days in addition to the duration of the inspection and 8 inspector-days for CW destruction facilities. Furthermore, the Council recommended that the CSP task the Technical Secretariat with applying and developing further cost-saving methods in its verification activities under Articles IV and V.⁵

In sum, these debates surrounding the organisation’s income, with particular reference to cost of verification under Articles IV and V of the Convention occupied much of the first three Sessions of the Conference of States Parties, the Executive Council and a facilitator in between these CSP sessions. The fact that CW possessor States – from the point of view of other member states – were on the verge of violating the “possessor pays” principle enshrined in the Convention in relation to the cost of verification for CW destruction related activities did

³ See the plenary statement of the Soviet representative Nazarkin, reprinted in Document CD/PV.473, Geneva, 11 August 1988, pp.8-12; quote on p.10, emphasis added.

⁴ See the decision of the Executive Council as contained in Document EC-XI/DEC.1 of 4 September 1998.

⁵ See the decision of the Third Session of the Conference of State Parties contained in *Decision. Cost of Verification Under Articles IV and V*, document C-III/DEC.8, The Hague, 17 November 1998.

not deter both the United States and Russia from attempting to keep the reimbursable part of verification costs as small as possible. The less CW possessor States were willing to pay for verification of their CW-related storage and destruction activities, the bigger the portion of these costs to be covered by all States Parties through the Organisation's regular budget. With the benefit of hindsight and in relation to the overall effort required to destroy CW stockpiles, the figures being discussed in this context are almost negligible.

2.2 Continued Challenges: Growing Numbers, Slipping Deadlines

Initially four States Parties – India, Russia, the United States and A State Party (according to OPCW jargon)– declared the possession of CW stockpiles, which were stored at 33 locations in the four countries.⁶ These countries have declared a total of nearly 70,000 metric tons of chemical agents and about 8.6 million munitions and containers.⁷ Of these 70,000 tons, the Russian Federation owns some 40,000 metric tonnes, the US 28,575 metric tons, India around 1,000 metric tons and A State Party around 600 metric tons. In 2003, the number of CW possessor States increased to 5 when Albania declared in April of that year that it had discovered some 16 tons of CW agents on its territory. In early 2004, Libya acceded to the CWC and became the 6th CW possessor State when it declared possession of 23.62 tons of CW agents.⁸ Due to the late discovery of CW stocks in Albania and the late accession of Libya to the CWC, both states had to apply for an extension of the intermediate destruction deadlines as stipulated in the Verification Annex to the CWC. The decisions to extend in principle the phase 1, 2, and 3 destruction deadlines were taken by the Conference of States Parties at its Ninth Session in November/December 2004.⁹

⁶ OPCW, *Annual Report 1999*, July 2000, p. 20.

⁷ Mills, "Progress in theThe Hague: Quarterly Review no. 35," p. 13.

⁸ See John Hart and Shannon N. Kile, 'Libya's renunciation of nuclear, biological and chemical weapons and ballistic missiles' in *SIPRI Yearbook 2005: Armaments, Disarmament and International Security*, Oxford: Oxford University Press, pp.629-648.

⁹ See *Decision. Request by the Libyan Arab Jamahiriya for Extension of the Intermediate Deadlines for the Destruction of Its Category 1 Chemical Weapons Stockpiles*, document C-9/DEC.7, The Hague, 30 November 2004; *Decision. Request by Albania for Extensions of the Intermediate Deadlines for the Destruction of Its Category 1 Chemical Weapons Stockpiles*, document C-9/DEC.8, The Hague, 30 November 2004.

Already well before these requests had to be dealt with, because of a delay in commencing the CW destruction process, the Russian Federation was unable to meet the first intermediate deadline for destroying one percent of its highest-risk (Category 1) chemical weapons stocks three years after the CWC's EIF.¹⁰ In November 1999, as permitted under the Convention, Russia asked the Executive Council to extend the intermediate destruction deadline.¹¹ The Russian Federation argued that although the construction of CW destruction facilities had been impeded by economic difficulties, it intended to meet the next intermediate destruction deadline on 29 April 2002, when 20 percent of the Category 1 chemical weapons had to be destroyed.¹² The Conference of States Parties, in addition to retaining the 10-year deadline for destruction of the entire stockpile, requested the Russian Federation to submit a revised destruction plan as early as possible. Moscow fulfilled this request in October 2000.¹³ In 2001, the Russian government re-assessed its plan for the destruction of its chemical weapons stockpiles. The plan approved by the Russian government in July 2001 included significant changes, intended in part to comply with conditions set down by the U.S. Congress for the reinstatement of U.S. contributions to the Russian destruction programme. In addition, the plan expected completion of the destruction effort in 2012. The new plan was formally presented to the OPCW Executive Council in September 2001, and, in November, Russia submitted the required request for an extension of both the intermediate and final deadlines for the destruction of its Category 1 chemical weapons. Under the plan, 1 percent will be destroyed by 2003, 20 percent by 2007, 45 percent by 2009, and 100 percent by 2012. The request for the extension of the 1 percent deadline was approved by the Conference of States Parties at its 7th Session in November 2002, as was in principle the extension of the 20 percent intermediate deadline.¹⁴ The revised phase 2 deadline was set for 29 April 2007 by the subsequent 8th Session of the Conference of States Parties, which also

¹⁰ The intermediate deadline is specified in paragraph 17 of Part IV (A) of the Verification Annex to the CWC, Document C—V/DEC/CRP.12, May 2, 2000.

¹¹ According to paragraph 22 of Part IV (A). See Document C—V/3, p. 11.

¹² *CBW Conventions Bulletin*, no. 46, December 1999, p. 13.

¹³ Mills, "Progress in The Hague: Quarterly Review no. 32," p. 9.

¹⁴ See *Decision. Request of the Russian Federation for an Extension of the Intermediate and Final Deadlines for the Destruction of its Category 1 Chemical Weapons*, document C-7/DEC.19, The Hague, 11 October 2002.

agreed in principle to extend the 45 and 100 percent deadlines for destruction of the Russian CW stockpiles.¹⁵ The date for the destruction of 45 percent of Russian CW stockpiles was set by the 11th Session of the Conference of States Parties for 31 December 2009.¹⁶

It had become clear in the meantime that not only the Russian Federation, but also most other CW possessor States would not be able to meet the April 2007 deadline for the complete destruction of their CW stockpiles. According to one estimate, in late 2006 the US had destroyed somewhat in excess of 40 percent of its Category 1 CW, India around 70 percent, A State Party (according to OPCW jargon) more than 80 percent, and the Russian Federation around 16 percent. This last figure is somewhat controversial in so far as it relies on an accounting point at the end of the first phase of the destruction process – which is the way Russian authorities prefer to account for their progress in CW destruction – and not at the end of the whole procedure – which would be in line with existing facility agreements. However, there seems to be a consensus emerging that the Russian way of accounting for progress in CW destruction is acceptable, as this is likely to allow Russia to meet the interim deadline for the destruction of 20 percent of its category 1 CW on 29 April 2007. It also seems that the Russian willingness to accept verification measures for phase 2 destruction activities has been conducive to reaching this consensus.

Delays have required the extension of the final destruction deadline for practically all CW possessor States. The extensions granted have set the new dates for all CW stockpiles to be destroyed to: in the case of India, 28 April 2009¹⁷, of A State Party 31 December 2008¹⁸, and of the Russian Federation and the US, the latest possible date allowed under the CWC, that is 29 April 2012.¹⁹

¹⁵ See *Decision. Extension of the Intermediate and Final Deadlines for the Destruction by the Russian Federation of its Category 1 Chemical Weapons*, document C-8/DEC.13, The Hague, 24 October 2003.

¹⁶ See *Decision. Proposal for a Date for the Completion of Phase 3 of the Destruction by the Russian Federation of its Category 1 Chemical Weapons*, document C-11/DEC.14, The Hague, 8 December 2006.

¹⁷ See *Decision. Request by India for an Extension of the Deadline for Destroying all of its Category 1 Chemical Weapons*, document C-11/DEC.16, The Hague, 8 December 2006.

¹⁸ See *Decision. Request by a State Party for an Extension of the Final Deadline for Destroying all of its Category 1 Chemical Weapons*, document C-11/DEC.12, The Hague, 8 December 2006.

¹⁹ See *Decision. Request by the United States of America for Establishment of a Revised Date for the Final Deadline for Destroying all of its Category 1 Chemical Weapons*, document C-11/DEC.17, and *Decision. Proposal by the Russian Federation on Setting of a Specific Date for Completion of Destruction of its Stockpiles of Category 1 Chemical Weapons*, document C-11/DEC.18, The Hague, 8 December 2006.

Destruction in Libya has not even begun, thus a similar decision for Libya has set the deadline for completion of destruction of its CW arsenal at 31 December 2010. This decision of the Conference also specifies the intermediate deadlines for Libyan CW destruction for earlier in 2010.²⁰ Practically all of these decisions require the CW possessor states to report every 90 days on the progress made in the destruction process, as well as the continued submission of annual plans of destruction and annual reports on the destruction activities on their territories.

In the case of Albania, which in spring of 2007 had destroyed almost 40 percent of its Category 1 CW stockpiles, no extension request was put forward before the deadline stipulated in the CWC, i.e. one year before the target for destruction.

Completion of the Albanian destruction process is expected sometime in May or June 2007. However, Albania has been found to be in technical non-compliance and was tasked by the Executive Council at its 48th session in March to redress the situation and report back to the Council meeting at the end of June 2007.

3. Addressing Challenges of Verification and Cost Issues Related to CW Destruction

In addition to the CW destruction activities to be undertaken by CW possessor States and the verification activities to be conducted by the OPCW's Technical Secretariat, the Executive Council has been tasked by the Conference of States Parties at its 11th Session in December 2006 to conduct additional visits in two of the CW possessor States, i.e. the Russian Federation and the United States. In addition, a number of financial support measures have been undertaken by several CWC States Parties in the framework of the so-called G8 Global Partnership. The first of these two sets of activities will be briefly discussed in the following section.

²⁰ For the details see *Decision. Proposal by the Libyan Arab Jamahiriya for the Establishment of Specific Dates for Intermediate Destruction Deadlines, and its Request for an Extension of the Final Deadline for the Destruction of its Category 1 Chemical Weapons*, document C-11/DEC.15, The Hague, 8 December 2006.

3.1 Executive Council Activities 2008 – 2012

It is noteworthy that the decision taken by the 11th Session of the Conference of States Parties to conduct visits by representatives of the Executive Council to CW destruction facilities in Russia and the US, or the construction sites of such destruction facilities, heavily emphasizes the obligation of those two CWC States Parties to complete the destruction of their Category 1 CW stockpiles by 29 April 2012 at the latest. This follows similar reminders contained in the abovementioned decisions to extend the final destruction deadline for the US and Russia to the said date and has to be seen in the context of 1) statements by former high-ranking members of the US government, according to which the destruction of US CW stocks might only be two-thirds accomplished by 2012 and take several more years to be completed,²¹ and; 2) the fact that the construction of some of the Russian CW destruction facilities is not making the progress that would be required to meet the 2012 deadline. In line with this assessment, the decision stresses the “need for States Parties to take measures to overcome the problems in their chemical weapons destruction programmes”.²²

It also has to be emphasized that these visits are not part of the regular verification system applied by the OPCW’s Technical Secretariat. On the contrary, the decision document points out that these “visits to consider progress and efforts to meet an extended deadline established in accordance with the provisions of the Convention” are intended as an “additional transparency and confidence building measure”.²³ It is on the basis of such an understanding that the US and the Russian Federation are offering to host such visits beginning in 2008 with a view to having “each relevant facility ... visited at least once during the extension period.” The details of the visits are to be worked out between the Chair of the Executive Council and the State Party concerned, visits are to be carried out in a way that they do not disrupt the destruction activities or their preparations and should “include discussions with senior representatives of relevant government authorities as identified by the

²¹ See for example the letter by former US Secretary of Defense Donald Rumsfeld quoted in “Rumsfeld: U.S. will miss chemical weapons disposal deadline”, in *Army Times*, 13 April 2006.

²² Decision. Visits by Representatives of the Executive Council, document C-11/DEC.20, The Hague, 8 December 2006, p.1.

²³ *Ibid.*, p.2

State party hosting the visit”.²⁴ The decision by the Conference of States Parties furthermore specifies the composition of the visiting group, requests the drafting of a factual report on each visit – on which the State Party hosting the visit is allowed to comment – and addresses the financial implications of the visits.

In sum, this decision sets out to accomplish three goals. First, it serves as an additional reminder to the US and the Russian Federation of their obligation under the Convention to completely destroy their Category 1 CW stockpiles by 29 April 2012. Second, it allows the OPCW’s Executive Council to closely monitor the progress made by these two States in their destruction efforts and thereby to ascertain that all possible efforts are being undertaken to meet the extended deadline. Third, this could provide the basis for a way out of the dilemma the OPCW will find itself in, should one or both of the States Parties of concern be unable to meet the extended CW destruction deadline in 2012. In such a scenario, and if the remaining time needed to complete the destruction process is measurable in months, not years, this decision and the resulting visiting process might serve as the basis for the argument that both the US and Russia have undertaken everything possible to meet the destruction deadline – confirmed by the visits – but due to factors beyond their control have been unable to achieve the goal. In such a scenario, the State(s) of concern might be found to be in technical non-compliance with the provisions of the CWC and tasked to redress the situation as quickly as possible. It needs to be emphasised, though, that this scenario is something that most, if not all CWC States Parties would like to avoid. This is why the monitoring arrangement was drawn up by the Executive Council in the first place.

Conclusion

The CWC goes into some detail in spelling out the provisions for the destruction of chemical weapons and CW destruction facilities. As the historical flashback in relation to reimbursement of inspectors’ salaries has shown, the early phase of CWC implementation was dominated by attempts to stick as closely to the letter of the CWC as possible and in particular to ensure that the “possessor pays” principle was not violated.

²⁴ Ibid.

Since then, CWC states parties' understanding of the magnitude of the problem of ridding the world of chemical weapons has come a long way. Over the same period of time, the willingness to support CW possessor States who face difficulties in living up to their obligations under the CWC's disarmament provisions has seen a corresponding growth, as evidenced by many bilateral agreements in support of CW destruction activities most notably in the Russian Federation, but also through the concerted efforts of the G-8 Global Partnership.

Within the framework of the OPCW's activities, there is clear evidence that the bureaucratic and procedural machinery that has been put in place by the CWC to deal with missed intermediate and final destruction deadlines is working. However, there is also clear evidence of a certain amount of flexibility and creativity in dealing with the prospect that the two big possessor States, the US and the Russian Federation, might not meet the extended final destruction deadline of 29 April 2012. In order to ensure that these two States Parties expend every effort to achieve complete destruction by the newly set target date, the OPCW's Executive Council will remain seized of the matter and thereby hopefully ensure that this issue will receive sufficient attention by political elites in Washington and Moscow. For the wider community of CWC States Parties, it is imperative to maintain the commitment to supporting CW destruction activities – most notably in Russia – at a high level and to live up to commitments undertaken in the G-8 Global Partnership and bilateral contexts. Long gone are the days when the question of inspector salaries could lead to frictions among CWC States Parties. Every effort has to be made to ensure that the process of CW destruction and its verification picks up speed and runs more smoothly between now and 2012. Only in this way can the crucial assessment of the success of CW destruction in less than five years from now be positive.

6. FAILURE TO RESPECT THE CHEMICAL WEAPONS DESTRUCTION DEADLINE AND CONSEQUENCES FOR THE CREDIBILITY OF THE CWC AND OTHER DISARMAMENT TREATIES

Rein Müllerson

The 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction (CWC), which entered into force in 1997, is one of the – if not the – most advanced, mature and successful of international disarmament treaties.¹ Ten years after its entry into force, 182 States are parties to the Convention and of the remaining 13 States, 6 have signed it. Nevertheless, the problems of the CWC's universality and the adherence of Middle Eastern States to it are among the hottest issues regarding the implementation of the Convention. Before turning to the challenges and problems related to the delays in the destruction of CW arsenals, mention must be made (not only because we are celebrating the 10th anniversary of the CWC, but also to strike the right balance), if only briefly, of some of the achievements, which are indeed quite impressive.

According to the OPCW (Organisation for the Prohibition of Chemical Weapons), 100 percent of the declared chemical weapons production facilities have been inactivated (this, of course, does not mean that there may not be undeclared facilities or sites). These declared facilities are all, as the OPCW says, subject to a verification regime of unprecedented stringency. One hundred percent of the declared chemical weapon stockpiles have been inventoried and verified. Almost 90 percent (58 of

¹ Kim Howells, Minister of State, FCO, stated in March 2007: 'In my view, the convention is one of the most successful disarmament treaties in force today' (10th Anniversary Seminar on the Chemical Weapons Convention 26 March, FCO).

the 65) chemical weapons production facilities declared to the Organisation by 12 States Parties, have been either destroyed or converted for peaceful purposes. Over 30 percent of the 8.6 million chemical munitions and containers covered by the Convention have also been verifiably destroyed. Almost one quarter of the world's declared stockpiles of approximately 71,000 metric tonnes of chemical agents have been verifiably destroyed.²

Yet, notwithstanding these and other achievements (e.g., the adoption of national laws and programmes in accordance with the Convention's requirements, the number of inspections carried out by the OPCW, etc), the CWC now faces several challenges.

The CWC has, in principle, two main pillars – the disarmament or destruction pillar, under which States party to the Convention have to declare and destroy their CW, and the non-proliferation pillar that is meant to prevent the emergence of new weapons. These pillars are under a single roof, which is the verification carried out by the OPCW. They are also interlinked by this common roof. If one pillar (say, the disarmament one) faces problems and therefore calls for more attention and resources, this means that the other pillar (the non-proliferation one) receives less attention and also fewer of the always limited resources. As the report by Vertic, a British verification NGO, remarked, 'not only are existing chemical weapons stockpiles being destroyed at a much slower rate than required by the treaty, but verification has been skewed towards monitoring this process. This has been at the expense of verifying that illicit production of new chemical weapons is not occurring, including in the chemical industry'.³

The CWC member states must declare chemical weapons stockpiles and production facilities, relevant chemical industry facilities, and other related information such as chemical exports and imports. According to the Convention, Member States that possess CW and production facilities were to destroy them by April 2007. There are six States Parties to the CWC – Albania, India, Libya, the Russian Federation, the United States and A State Party (according to OPCW jargon) – that have declared their CW stockpiles. They are considered to be possessor States. However, unlike the Nuclear Weapons Non-Proliferation Treaty (NPT), the CWC does not have different categories of States Parties.

² OPCW, *The Chemical Weapons Ban: Facts and Figures*, 13 April, 2007.

³ *Getting Verification Right. Proposals for Enhancing Implementation of the Chemical Weapons Convention*, Vertic, 2002, p. 3.

The CWC is a non-discriminatory disarmament treaty and this is one of its important strengths.

In addition, 12 Parties declared a total of 65 former chemical weapons production facilities, all of which were to be dismantled or converted to peaceful purposes. States Parties that have declared Chemical Weapons Production Facilities (CWPFs) include Bosnia and Herzegovina, China, France, India, the Islamic Republic of Iran, Japan, Libya, Russia, Serbia, the United Kingdom, the United States, and A State Party. Of the 65 declared CWPFs, 58 have been certified as destroyed or converted for peaceful purposes.

During the negotiation of the CWC, it was clear that most of the chemical weapons to be destroyed would be the Cold War stockpiles of the United States and the former Soviet Union. Indeed, US and Russian stockpiles make up the bulk of the weapons now being destroyed, but other members have also declared chemical weapons holdings. In 2003, for example, Libya confirmed its intention to give up its Weapons of Mass Destruction (WMD) and join the OPCW, disclosing to the British and US governments the quantities of chemical agents and bombs designed to be filled with chemical agents. These weapons are now being destroyed and their destruction verified under the terms of the CWC.

Although the US has now destroyed over 40 percent of its stockpile, and Russia started in 2006 to make significant progress towards destroying 20 percent of its CW arsenal, both face major challenges to meet the 2012 final deadline. Many states are working with the Russian government to help destroy weapons at seven Russian destruction sites. In September 2006, Russia opened its third major facility for the destruction of its CW stockpiles near Maradikovsky in the Kirov Region (300 miles northeast of Moscow), the first to destroy nerve agents. At the time, Paul Walker, Legacy Program Director at Global Green USA, commented: "Global Green USA congratulates the Russian Federation on destroying over 2,200 tons of deadly chemical agents over the past four years. The start-up of a third destruction facility this month will now help Russia to accelerate their CW stockpile destruction and potentially meet the April 2007 deadline of the Chemical Weapons Convention for 20 percent stockpile elimination. However, deadlines must not trump safety and protection of public health, and we urge Russia to be extremely cautious as they move forward with this dangerous process."⁴

⁴ 'Global Green USA Welcomes Start-up of New Russian Chemical Weapons Destruction Facility, Urges Safety and Transparency, News Center, CommonDreams.org, September 7, 2006.

On 8 December 2006, the Conference of State Parties granted extensions for practically all states that had requested extensions (including all the possessor states).

The Conference

- extended the deadline for A State Party to 31 December 2008;
- set 31 December 2009 as the date for completion of the destruction by the Russian Federation of 45 percent of its Category 1 chemical weapons stockpiles, and 29 April 2012 as the date for completion of the destruction of 100 percent of its chemical weapons stockpiles;
- established for Libya the following dates as intermediate deadlines for the destruction of its Category 1 chemical weapon stockpiles: phase 1 (1 percent), to be completed by 1 May 2010, phase 2 (20 percent), to be completed by 1 July 2010, and phase 3 (45 percent), to be completed by 1 November 2010;⁵ the Conference also called upon Libya to complete destruction of its Category 2 chemical weapons as soon as possible, but in any case no later than 31 December 2011;
- granted an extension of the deadline by which India must destroy all of its Category 1 chemical weapons stockpiles, subject to several conditions, including that India complete destruction of its Category 1 chemical weapons no later than 28 April 2009;
- established 29 April 2012 as the date by which the United States must destroy all of its Category 1 chemical weapons, subject to certain conditions;
- granted Albania extensions of the phase 1, 2, and 3 intermediate deadlines for destruction of its Category 1 chemical weapons, and established the following new deadlines: phase 1 (1 percent), to be completed by 15 January 2007; phase 2 (20 percent), to be completed by 31 January 2007; and phase 3 (45 percent), to be completed by 28 February 2007.

What are the reasons for delays?

Insufficient financing has caused delays with the Russian CW destruction programme, especially at the earlier stages of its implementation.

⁵ On the understanding that Libya shall, up to 29 April 2007, keep the Council informed, at each alternate regular session and with supporting documentation, of the status of its plans to implement its destruction obligations.

To a large extent, they were related to the 1998 financial crises in Russia. As the title of an article by two Russian experts, 'It is cheaper to produce than to destroy',⁶ indicates, destruction of CW stockpiles, especially destruction which is environmentally safe, verifiable and without delays (all interrelated and important conditions), is indeed a very expensive business. The country has redesigned its chemical weapons destruction programme in the hope of destroying its entire 40,000 metric ton stockpile by April 2012. By April 2006, however, it had destroyed less than three percent. Nevertheless, on 24 April 2007, General Victor Kholostov, the Deputy Director of the Federal Agency on Industry, announced that the Russian Federation had completed the second phase of the destruction programme by destroying more than 20 percent of its chemical weapons stockpiles.⁷

Russian officials have said they will need international financial assistance to meet their goal of total destruction by April 2012. Yet, even with international aid, it is unclear whether Russia will be able to destroy its stockpiles by the 2012 deadline.

Washington also faces its share of setbacks, including financial constraints, political resistance, as well as technical challenges. Like Russia, the United States seems unlikely to meet the new extended deadline. One of the most pessimistic estimates is that the United States will be not be able to get rid of its CW arsenal, which still totals some 28,000 metric tons, until 2023. To date, destruction has been completed at only two of seven storage depots. Efforts to destroy chemical weapon stockpiles have been stymied by technical problems, such as unanticipated heavy-metal contamination and fires at destruction sites. Political resistance at the state and local level has also slowed progress, with local communities raising concerns about health and safety. Finally, limited funding has contributed to slowing down destruction at US Army CW disposal sites in Pueblo, Colorado, and Blue Grass, Kentucky.

One of the negative consequences of delays in the destruction of existing CW arsenals is that other elements of the CWC, such as verifying that new weapons are not produced or new facilities opened, have received less attention and resources. Delays in the destruction of CW stockpiles also increase the danger that terrorists may get hold of some of the most deadly weapons that exist today. Recent developments in

⁶ O. Lisov, N. Krasov, 'It is cheaper to produce than to destroy', *Military-Political Problems. Observer* (in Russian), 2003, No. 11.

⁷ OPCW, Press Release, 24 April, 2007.

several parts of the world show that terrorists of different kinds actively seek and would not hesitate to use chemical weapons, at least until nuclear weapons become available to them. Finally, delays in destruction of CW could increase threats to the environment, although it has to be acknowledged that environmental concerns are precisely one of the factors causing at least some of the delays. In this respect too, the two pillars of the CWC are interlinked. Though environmental concerns are causing some delays in destruction of CW, they are deemed more important than deadlines. While meeting deadlines is important, safety – both human and environmental – has to prevail.

So, what line should be taken concerning deadlines and the potential need to consider further extensions? It is of interest to note that OPCW officials as well as State representatives stick firmly to the 2012 deadline and refuse to comment on possible extensions beyond that date – extensions which, unlike those of December 2006, would go beyond the Convention clauses. However, independent experts are expressing serious doubts about the Russian Federation and the United States being able to meet the 2012 deadline. This is probably a wise division of labour. While States and the OPCW have to do their utmost to try to meet the extended deadlines and continuing to reiterate the finality of 2012 deadlines is meant to induce them to work harder, it is also necessary to think the unthinkable and this is better done by individual experts.

When the text of the CWC was negotiated and then adopted in 1993, the States Parties already envisaged that there could be difficulties in meeting the deadlines established by the Convention. Therefore, in the Annex on Implementation and Verification (Verification Annex, Part IV) they provided that ‘if a State Party, due to exceptional circumstances beyond its control, believes that it cannot achieve the level of destruction specified for Phase 1, Phase 2 or Phase 3 of the order of destruction of Category 1 chemical weapons, it may propose changes in those levels’ (para. 21) and that ‘if a State Party believes that it will be unable to ensure the destruction of all Category 1 chemical weapons not later than 10 years after the entry into force this Convention, it may submit a request to the Executive Council for an extension of the deadline for completing the destruction of such chemical weapons’ (para. 24). Notwithstanding these escape clauses, it is clear today that the initial deadlines for the destruction of the CW arsenals of all States that possessed them and especially the two biggest possessor States – the Russian Federation and the United States – foreseen for the 1990s, were

unrealistic and that expectations were too high.

Should the Conference of States Parties or individual States Parties take any measures against those who do not keep these new extended deadlines? This is as much a legal as it is a political question. Article XII of the CWC provides for measures to ensure compliance, including sanctions. In cases of serious damage to the object and purpose of the Convention or in cases of particularly serious breaches of the Convention, the Conference of States Parties may bring the issue to the attention of the UN General Assembly or the Security Council.

Under international law, measures or sanctions should depend on the nature of non-compliance, i.e. the principle of proportionality applies (even Chapter VII sanctions cannot be completely ruled out should the Security Council find that non-compliance constitutes a threat to international peace and security). However, such extreme measures are hardly practicable in cases of a State missing deadlines, even if this were due to the fact that it did not make sufficient efforts to meet the deadline. Something else has to be present, e.g., *dolus malus*, hiding and keeping parts of one's chemical arsenal.

Unlike nuclear weapons, chemical weapons have a stigma: it is difficult to imagine a State, whether a part of what we call the "axis of evil" or a pariah state, which would proudly declare its chemical weapons programme. Such a general revulsion towards CW, considered a poisonous, treacherous means of warfare, means that the implementation of the CWC, including the non-observance of destruction deadlines, especially if such non-observance is due to a lack of political will, is dependent on the transparency of the process of implementation of the CWC. This means that one has to resort to the force of public opinion to move towards a chemical weapons-free world. Cooperation and engagement are more effective means of achieving the objectives of the Convention than sanctions. This may be true in many areas of international law and politics, but it is particularly true in creating a CW-free world.

7. CUSTOMARY INTERNATIONAL LAW AND THE PROHIBITION OF USE OF WEAPONS OF MASS DESTRUCTION

Yoram Dinstein

Introduction

The classical definition of customary international law, as phrased in Article 38(1)(b) of the Statute of the International Court of Justice, is “general practice accepted as law”.¹ The customary layer of international law is of immense significance. It has the disadvantage of constituting *jus non scriptum* (incrementally consolidating in the general conduct of States, and often hard to pin down), but this is balanced by the advantage of general custom being binding universally on all States (even those States that did not take part in the process leading to the creation of the general custom). By contrast, treaties (e.g., the CWC or the NPT) have the advantage of constituting *jus scriptum* (which makes them readily available), but this is balanced by the disadvantage of each treaty being legally binding solely on Contracting Parties. The only treaties that are at this juncture truly universal (meaning that all States – bar none – have become Contracting Parties to them) are the four 1949 Geneva Conventions for the Protection of War Victims. Other treaties (like the CWC or the NPT) are close to universality, but close is not good enough. Even a single hold-out State, resolutely remaining a non-Contracting Party to a treaty, may regard the instrument as *res inter alios acta*.

¹ Statute of the International Court of Justice (Annexed to Charter of the United Nations), 1945, 9 *International Legislation* 510, 522 (M.O. Hudson ed., 1950).

In this paper, the standing in customary international law of the three categories of weapons of mass destruction shall be examined seriatim: nuclear weapons, biological weapons and chemical weapons. The focus on these weapons will not be from the angle of disarmament but through the different (albeit related) lens of the *jus in bello*.

1. Nuclear Weapons

a) There can be no doubt that nuclear weapons are subject to the application of the general principles of the *jus in bello* (the laws of armed conflict, often called international humanitarian law). As the International Court of Justice pronounced in the 1996 Advisory Opinion on *Legality of the Threat or Use of Nuclear Weapons*: “In the view of the vast majority of States as well as writers, there can be no doubt as to the applicability of humanitarian law to nuclear weapons. The Court shares that view”.²

b) Unlike the other two sub-sets of weapons of mass destruction (chemical and biological weapons), nuclear weapons are not subject to any comprehensive treaty forbidding their use. Absent a treaty, the question is whether there is general customary international law to that effect. But a word of caution is required here: weapon bans are not necessarily similar to other subject matters. Despite the existence of some relevant customary principles, the undeniable fact is that, whenever States wish to exclude from use a specific weapon, they do not rely on overarching customary principles alone, but conclude a treaty proscribing that weapon in concrete and explicit terms. When there is no specific treaty ban of a particular weapon, one can argue the matter back and forth in light of customary international law, but there will always be those who would challenge the legal applicability of the general principles to the concrete weapon.

c) The two cardinal principles of the *jus in bello* that are germane to the legality of nuclear weapons are (i) the principle of distinction in the conduct of hostilities between combatants and civilians, and (ii) the principle that belligerent States must avoid employing weapons that cause unnecessary suffering or superfluous injury to combatants.³ On the face of it, the unique characteristics of nuclear weapons are such

² Advisory Opinion on *Legality of the Threat or Use of Nuclear Weapons*, [1996] ICJ Reports 226, 259.

³ On these two principles, see Y. Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict* 57-59, 82 (2004).

that they seem plainly irreconcilable with either principle. If we take the two instances of the actual use of A-bombs during hostilities (Hiroshima and Nagasaki in August 1945), it is easy to see why the two principles appear to collide head-on with the detonation of nuclear weapons. First, although there were identifiable military objectives in both target cities (in the form of substantial military units, dock facilities, etc.), the number of civilian casualties was excessive compared to the military advantage that could be expected to be gained, certainly transcending what may be reasonably looked upon as mere “collateral damage”. Secondly, the long-term radiation effects of the two bombs caused unnecessary suffering or superfluous injury in a most blatant fashion (many victims died of one form of cancer or another many years after the termination of World War II).

Nevertheless, one has to bear in mind in connection with the latter problem that the contemporary nuclear arsenal (as distinct from the relatively primitive A-bombs of Hiroshima and Nagasaki) includes “clean” bombs which apparently avoid the more egregious consequences of unnecessary suffering or superfluous injury. As for the former issue, it is necessary to take into account the present availability of smaller, low-yield, tactical nuclear devices, the effects of which are limited spatially, so that civilians are not likely to be exposed in large numbers to alarming risks. As well, one can visualize the use of nuclear weapons (whether small or even full-size) in circumstances where civilians are simply not physically within range. This can transpire, by way of illustration, either when an enemy fleet is engaged in the middle of the ocean or in the course of desert warfare (epitomized by the North African campaigns of World War II). It follows that the use of “clean” nuclear devices in hostilities, waged in areas remote from civilian concentrations, would not be in non-compliance with the general principles of the customary *jus in bello*.

d) The fact that nuclear weapons have actually remained on the shelf since Hiroshima and Nagasaki by no means suggests that the employment of these weapons in wartime is now forbidden by customary international law. In the *Nuclear Weapons Advisory Opinion*, the majority of the International Court Justices rejected the allegation that non-recourse to nuclear weapons over the previous half-century constitutes proof that their use has become unlawful pursuant to customary international law.⁴

e) The main argument, perhaps, against the contention that nuclear

⁴ Ibid., 254.

weapons are currently unlawful is a sort of *argumentum a contrario*. It is impossible to gloss over the multilateral treaties in force that not only prohibit testing, exploding, emplacing or installing nuclear weapons in designated areas (such as Antarctica, outer space or the ocean floor), but even establish nuclear free zones (e.g., in Latin America) within the bounds of which nuclear weapons are not allowed to be used. What is the point in concluding a treaty that expressly excludes the use of nuclear weapons inside a well-defined zone if recourse to such weapons is banned globally? The entire rationale underlying such a treaty is the built-in assumption that – outside the nuclear free zone – there is a palpable chance that nuclear weapons will actually be employed.

f) The International Court of Justice, in 1996, by eleven votes to three, pronounced: “There is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such”.⁵

By the barest of majorities (seven to seven, a tie resolved by the President’s casting a vote), the Court added that – although generally contrary to the rules of the *jus in bello* – the use of nuclear weapons may be lawful “in an extreme circumstance of self-defence, in which the very survival of a State would be at stake”.⁶ The last sentence is most troublesome. It appears to be utterly inconsistent with the basic tenet that the *jus in bello* applies equally to all belligerent States, irrespective of the merits of their cause in accordance with the *jus ad bellum*.⁷ The notion that, because of some extreme circumstances of self-defence in which its survival is at stake, a State can resort to desperate measures that otherwise would be unlawful, is most disturbing. What about a non-nuclear State, like Italy? Can Italy claim that, in an extreme case of self-defence when its survival is at stake, it is allowed to use, say, chemical weapons? If not, why – and on what ground – are nuclear Powers granted some preferential treatment as an exceptional privileges not available to anybody else? In the author’s opinion, these are rhetorical questions. The Court’s language is ill-advised and legally wrong. However, irrespective of this peculiar twist in the Advisory Opinion (which is totally redundant), the author shares the overall conclusion – shared, as indicated, by a lopsided majority – that there is no (customary or treaty) direct pro-

⁵ Ibid., 266.

⁶ Ibid., *id.*

⁷ See Y. Dinstein, *War, Aggression and Self-Defence* 161-162 (4th ed., 2005).

hibition of the use of nuclear weapons in present-day international law. g) The issue of the legality of nuclear weapons must not be confused with the NPT regime, predicated on the 1968 Nuclear Non-Proliferation Treaty.⁸ The presupposition of the treaty framers was – and still is⁹ – that non-proliferation can diminish the chance of use. There is a tendency to criticize the NPT regime. But, while remaining fully cognizant of the “half-empty glass”, we should not overlook the “half-full glass”. First off, although the discriminatory treatment of “have” States and “have-not” States is hard to justify (based, as it is, on the “have” States telling the “have-not” States: “do as we say and not as we do”), one cannot ignore the fact that, since the end of the Cold War, there has been a significant reduction in the nuclear stockpiles of the “have” States (in line with the long-neglected undertaking contained in Article VI of the NPT¹⁰). Secondly, non-proliferation has been a greater success than anticipated four decades ago. Surely, circa 1968, nobody seriously dared to hope that only two additional countries (India and Pakistan) would have actually joined the nuclear club. Thirdly, as a counterweight to the two additions, it is noteworthy that the trend has not been unidirectional. Some countries possessing nuclear weapons (the Ukraine, Belarus, Kazakhstan and South Africa) have relinquished them, and some other countries (pre-eminently Libya) – once bent on going nuclear – have dropped out of the race.

There is at present the dual problem of North Korea and Iran. But with North Korea there seems to be reason for some guarded optimism that it will soon forego its nuclearisation. The situation with Iran is more complicated. However, there is some room for hope that, should more effective sanctions be imposed by the Security Council, the Iranian Supreme Leader will see the light. In any event, a line in the sand has been drawn, and it must not be allowed to be crossed. Everybody understands that, in this field, there is a chain reaction not only in the make-up of the device but also in its consequences. If Iran is permitted to go nuclear, the regional political fall-out could be disastrous.

⁸ Treaty on the Non-Proliferation of Nuclear Weapons, 1968, [1968] *United Nations Juridical Yearbook* 156.

⁹ The NPT was indefinitely extended in 1995: [1995] *United Nations Juridical Yearbook* 291, 301.

¹⁰ NPT, *supra* note 8, at 158.

2. Biological weapons

a) Mention will be made later of the 1925 Geneva Gas Warfare Protocol. What is often forgotten is that the Protocol states that it extends the prohibition of gas warfare to the use of bacteriological methods of warfare as between Contracting Parties.¹¹ Over the years, it has been felt necessary to address the issue of biological weapons head-on, delinked from gas warfare. This was accomplished when the UN General Assembly drew up in 1971 a Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, opened for signature in 1972.¹² In this instrument, the Parties undertake “never in any circumstances to develop, produce, stockpile or otherwise acquire or retain” microbial and other biological agents or toxins (whatever their origin or method of production), designed to be used for hostile purposes or in armed conflict, and to destroy them (or divert to peaceful purposes) and “not to transfer existing biological weapons”.¹³

b) The formula first agreed upon in 1971 (“never in any circumstances to develop” etc.) served as a model for the subsequent CWC. However, there is one major difference. As we shall see, in the CWC, the capstone of the prohibition is use (which is the most important issue from the standpoint of *jus in bello*). The original formula of 1971 did not refer *expressis verbis* to use, it being understood that use of biological weapons had already been proscribed in the 1925 Geneva Protocol.¹⁴ But, surely, when States undertake not to produce, acquire or retain a certain weapon under any circumstances – in short, not to possess it – this effectively precludes any possible use as well.¹⁵ After all, “what is not pos-

¹¹ Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 1925, *The Laws of Armed Conflicts: A Collection of Conventions, Resolutions and Other Documents* 105, 107 (D. Schindler and J. Toman eds., 4th ed., 2004).

¹² Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, 1971, *The Laws of Armed Conflicts, ibid.*, 135.

¹³ *Ibid.*, 136-137.

¹⁴ See J. Goldblat, “The Biological Weapons Convention: An Overview”, 37 *International Review of the Red Cross* 251, 257 (1997).

¹⁵ See E.P.J. Myjer, “Means and Methods of Warfare and the Coincidence of Norms between the Humanitarian Law of Armed Conflict and the Law of Arms Control”, *International Law and the Hague’s 750th Anniversary* 371, 374 (W.P. Heere ed., 1999).

sessed cannot be used".¹⁶ In any event, it is incontestable that customary international law prohibits today the use of biological weapons in armed conflict.¹⁷

c) The problem with the 1971 Convention is that, unlike the CWC, it does not incorporate a system of verification and inspection. It is sometimes asserted that this is due to lack of sufficient interest in the subject of biological weapons. But such an assertion is based on a misconception. The genuine obstacle impeding progress is that traditional modalities of verification are not workable for biological weapons.¹⁸ This is a case in which diplomats and lawyers have no choice but to await the prospects of advances in science and technology. No doubt, as soon as a scientific solution is found, verification measures will be grafted onto the 1971 Convention through an additional Protocol.

d) The absence of obligatory verification from the 1971 Convention and its presence in the CWC creates a possible loophole in the CWC regime, inasmuch as it is not always easy to draw a clear-cut distinction in a chemical reaction between what is produced exclusively by chemical catalysts and what is effected with the help of bacteriological microorganisms. Needless to say, as long as a viable verification system exists with respect to the destruction of chemical weapons (there is no duty of subjecting to inspection the destruction of biological weapons) there is every incentive to maintain a robust definition of chemical weapons.

3. Chemical Weapons

a) As early as 1899, Hague Declaration (IV, 2) Concerning Asphyxiating Gases prohibited the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases.¹⁹ Notoriously, poisonous gases were employed on a massive scale in the battlefields of World War I.

¹⁶ A.V. Lowe, "1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and Their Destruction", *The Law of Naval Warfare: A Collection of Agreements and Documents with Commentaries* 623, 643 (N. Ronzitti ed., 1988).

¹⁷ *Customary International Humanitarian Law* 256 (International Committee of the Red Cross, J.-M. Henckaerts and L. Doswald-Beck eds., 2005).

¹⁸ See US Position on Protocol to the Biological Weapons Convention, [2002] *Digest of United States Practice in International Law* 1037, *id.*

¹⁹ Hague Declaration (IV, 2) Concerning Asphyxiating Gases, 1899, *The Laws of Armed Conflicts*, *supra* note 11, at 95, 96.

However, Article 171 of the 1919 Versailles Treaty of Peace with Germany referred to “[t]he use of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices being prohibited” as the ground for forbidding their manufacture in and importation to Germany.²⁰

b) The watershed instrument on gas warfare is the aforementioned 1925 Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare. The Geneva Protocol starts by stating that “the use in war of asphyxiating, poisonous or other gases and of all analogous liquid materials or devices” has already been prohibited in treaties to which the majority of States are Parties; adding that those Contracting Parties to the Protocol not having done so now accept the prohibition as binding between themselves, with a view to making it universally accepted as a part of international law.²¹

c) The reference to the acceptance of the Geneva Protocol’s prohibition in relations between the Parties (*inter se*) might suggest that – at the time the text was adopted – the injunction did not reach the goal of general acceptance as part of customary international law. Not surprisingly, perhaps, it took the United States half a century to ratify the Geneva Protocol (in 1975). Still, even prior to the US ratification, the prevalent view was that the Protocol had come to reflect customary international law.²² That is not to say that the use of gas warfare has disappeared in practice. In fact, mustard gas and nerve gas were resorted to by Iraq in the course of the Iran-Iraq war of the 1980s.²³ But this was a flagrant breach of the *jus in bello*. There is no doubt at all nowadays that the prohibition of gas warfare has fully consolidated as customary international law.²⁴ Indeed, “[e]mploying asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices” is a war crime pursuant to Article 8(b)(2)(xviii) of the 1998 Rome Statute of the International Criminal Court.²⁵

²⁰ Versailles Treaty of Peace with Germany, 1919, 3 *A History of the Peace Conference of Paris* 99, 192 (H.W.V. Temperley ed., 1920)

²¹ Geneva Protocol, *supra* note 11, at 107.

²² See R.R. Baxter and T. Buergenthal, “Legal Aspects of the Geneva Protocol of 1925”, 64 *American Journal of International Law* 853, *id.* (1970).

²³ See T.L.H. McCormack, “International Law and the Use of Chemical Weapons in the Gulf War”, 21 *California Western International Law Journal* 1, 12-17 (1990-1991).

²⁴ *Customary International Humanitarian Law*, *supra* note 17, at 259-260.

²⁵ Rome Statute of the International Criminal Court, 1998, *The Laws of Armed Conflicts*, *supra* note 11, at 1309, 1318.

e) The prohibition of chemical weapons in their totality was completed only in 1993, in the CWC (the Paris Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction).²⁶ In Article I of the CWC, States Parties are obligated “never under any circumstances” to use chemical weapons, to engage in military preparations for such use, or to develop, produce, acquire, stockpile, retain or transfer them; and they undertake to destroy chemical weapons that they possess.²⁷ The paramount legal engagement is not to use chemical weapons, all the other prohibitions being “secondary to the objective”.²⁸

f) The term “chemical weapons” is defined in Article II of the CWC, and the linchpin of the definition (in Paragraph 2) is that the chemical is toxic in the sense that “its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals”.²⁹ The reference to humans and animals leaves out anti-plant agents (herbicides). This resulted from a “compromise package”,³⁰ which deleted herbicides from the definition in the operative clause yet inserted in the Preamble the following statement: “*Recognizing* the prohibition, embodied in the pertinent agreements and relevant principles of international law, of the use of herbicides as a method of warfare”.³¹ It is noteworthy that the United States (which insisted on the omission of the prohibition of herbicides from the operative clause of the CWC) “has formally renounced the first use of herbicides in time of armed conflict”, except within US installations or around their defensive perimeters.³²

g) Non-lethal chemicals (mainly tear gas) are included in the definition of chemical weapons which refers to temporary incapacitation. In Article I(5) of the CWC, States Parties undertake “not to use riot control agents as a method of warfare”; whereas Article II(9)(d) explicitly allows the employment of chemicals for “[I]aw enforcement including domestic riot control purposes”.³³ The net outcome is that recourse to tear gas and

²⁶ Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction, 1993, *The Laws of Armed Conflicts*, *supra* note 11, at 239, 241.

²⁷ *Ibid.*, 241-242.

²⁸ W. Krutzsch and R. Trapp, *A Commentary on the Chemical Weapons Convention* 14 (1994).

²⁹ CWC, *supra* note 26, at 242.

³⁰ See Krutzsch and Trapp, *supra* note 28, at 8, 30.

³¹ CWC, *supra* note 26, at 241.

³² *Annotated Supplement to the Commander's Handbook on the Law of Naval Operations*, 73 *International Law Studies* 477 (US Naval War College, A.R Thomas & J.C. Duncan eds., 1999).

³³ CWC, *supra* note 26, at 242, 244.

other riot control chemicals is permissible in non-combat situations in wartime, e.g., “in prisoner-of-war camps or military prisons”.³⁴

h) Obligatory verification and on-site inspection of the destruction of existing stockpiles of chemical weapons is the keystone of the CWC. There are today some minor issues relating to the introduction of state-of-the-art technology sensors not originally envisaged by the framers of the CWC. But the major problem relates to the current deadlines for the destruction of existing stockpiles (already extended for the two main possessor States – the United States and Russia – until the last possible moment allowed by the CWC, *i.e.*, 2012). Given the pace of destruction thus far, it is virtually certain that 2012 is not a realistic target date. In the meantime, there is a concerted effort to maintain a “party line”, whereby the pace of destruction should simply be quickened with a view to meeting the mandatory deadlines. Tactically, this is probably the best posture for one and all, particularly the OPCW (Organization for the Prohibition of Chemical Weapons). But strategically it is time to start considering unpalatable – yet probably inescapable – alternative modes of action. A seminar of experts convened by the San Remo International Institute of Humanitarian Law in 2006 recommended looking into the options available. A formal amendment of the CWC is a complex process under Article XV,³⁵ and it is not an attractive way forward. One possible option is to categorise the extension of the deadlines as “matters of administrative or technical nature” (relating to changes in the Annexes) in conformity with Paragraphs 4-5 of Article XV,³⁶ in which case much simpler avenues open up.

4. Conclusion

a) There is no doubt that, of the three legal regimes pertaining to weapons of mass destruction, the most advanced (and the most successful) is that established by the CWC. Although (with 182 contracting Parties in 2007) the CWC is still short of universality, if a calibrated, country-specific, approach is carefully applied to each of the 12 remaining non-Contracting Parties, the CWC may well be on its way to achieving the goal of universality in a few years.

³⁴ See Krutzsch and Trapp, *supra* note 28, at 42.

³⁵ CWC, *supra* note 26, at 268-269.

³⁶ *Ibid.*, *id.*

b) All the same, we must not rest on the CWC's laurels: we must acknowledge the flaws in the implementation of the CWC. The 2008 Review Conference needs to deal with a whole range of practical and legal issues, not all of which have been addressed here.³⁷

³⁷Suffice it to mention additional problems such as (i) the security of existing stockpiles of chemical weapons from potential terrorist attacks; and (ii) the safety of chemical weapons dumped on the seabed (bearing in mind the risks of corrosion of containers and the spread of the chemicals).

8. THE PROBLEM OF THE UNIVERSALITY OF THE WMD TREATIES

Mohamed I. Shaker

Since the 1950s, a number of treaties and multilateral regimes have been established with the objective of preventing the use and the proliferation, and promoting the elimination of weapons of mass destruction. In this paper, we shall concentrate on the universality of three major treaties: the Nuclear non-Proliferation Treaty (NPT) which was signed in 1968 and entered into force in 1970, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (biological) and Toxin Weapons and on their Destruction (BTWC) which was signed in 1972 and entered into force in 1975¹, and the Chemical Weapons Convention (CWC), the tenth anniversary of the entry into force of which is being celebrated this month (April 2007). In the course of our analysis, we shall also discuss the entry into force of the Comprehensive Test Ban Treaty (CTBT), Security Council Resolution 1540 (2004) on WMD terrorism and the export control regimes, and more particularly the Nuclear Suppliers Group (NSG) with regard to the NPT and the Australian Group (AG) with regard to the BTWC and CWC. It is obvious that the Security Council resolution and these regimes are closely linked to the implementation of the three major treaties. In this paper we are

¹ Closely linked with the BTWC is the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases and Bacteriological Methods of Warfare (The Geneva Protocol signed in 1925 and which entered into force in 1928). The Protocol banned the use but not the production, stockpiling or deployment of such weapons.

not only concerned with the state of adherence to the treaties, but also with their state of implementation which aims at making them real universal instruments.

1. The NPT

The NPT is adhered to today by all nations of the world with the exception of India, Israel, Pakistan and the Democratic People's Republic of Korea (DPRK). The latter withdrew from the NPT in 2003, although there are signs that it may re-adhere to the Treaty given the latest developments concerning its readiness to dismantle its nuclear weapons programme and to bring its nuclear activities under International Atomic Energy Agency (IAEA) safeguards. It is a matter which needs to be watched carefully in the coming months.

As a result of these four States' non-adherence to the NPT, its universality has been seriously affected. Their absence has also affected the security of their respective regions, and has been a great source of instability. These States are not expected to give up their nuclear capabilities, with the exception perhaps of the DPRK. Therefore, their future adherence to the NPT is a far-fetched possibility.

In order to turn this dilemma around, two trends have emerged, supported by Israeli scholars and others. One suggests inviting Israel, India and Pakistan to accede to an Additional Protocol to the NPT, obliging them to behave "as if" they were parties to the treaty.² Such a protocol would permit the three States to retain their programmes, but inhibit further development.³ The second trend advocates a new regime that would replace the NPT and would include also the non-NPT States. The latter would subject only fissile material produced for peaceful purposes to international safeguards.⁴

Without going into the details of these proposals, it is clear that the three States would be allowed to continue with their nuclear-weapon capabilities unabated. They would merely undertake to abide by cer-

² Sverre Lodgaard, "Making the Non-Proliferation Universal", *WMD Papers*, No. 7, 2004. A shortened version of the paper was presented at the 54th Pugwash Annual Conference, Seoul, Republic of Korea, 4-9 October 2004.

³ Avner Cohen and Thomas Graham, Jr., "WMD in the Middle East: A Diminishing Currency", *Disarmament Diplomacy*, No. 76, March/April 2004, pp. 22-25.

⁴ Ephraim Asculai, *Rethinking the Nuclear Non-Proliferation Regime* (Tel Aviv: The Jaffee Center for Strategic Studies, Memorandum No. 70, 2004).

tain provisions of the NPT that would not affect their nuclear-weapon status, or they would become part of a new regime that would bring them closer to or on par with the acknowledged five NPT nuclear-weapon States. In other words, nuclear-weapon status would be conferred upon them and endorsed by either the present or a new “non-proliferation regime”. In the case of Israel, a country that has stated that it would not be the first to introduce nuclear weapons into the region, this would mean that it would be faced with the possibility of implicitly or explicitly accepting a status that it has so far hesitated to recognise. It must be said, however, that recent statements by Israeli officials may have given the impression that Israel is about to do away with the uncertainty and the ambivalence of its nuclear programme.

Accommodating the three countries, whether within the NPT regime or a “new regime” may encourage further proliferation from within the NPT regime itself. Non-compliance and violations have already beleaguered the regime. The suggested accommodation could exacerbate the worries. In such an atmosphere the disarmament process, in compliance with Article VI of the NPT could be further weakened or disregarded.

Moreover, a protocol attached to the NPT would be tantamount to amending certain procedures and conditions prescribed by the Treaty, and it seems to be rather difficult, if not impossible, to fulfill.

In the past, additional protocols to the NPT have been suggested with regard to other issues but quickly discarded or withdrawn because of the aforementioned considerations.

In the particular case of Israel, the way is quite open for it to adhere to the NPT and abide by its provisions as a non-nuclear weapon State. A unilateral declaration of behaviour as if it were a party to the NPT, an alternate proposal as suggested by some, is meaningless if Israel’s status remains ambivalent and its nuclear activities are not subjected to the IAEA verification system. There is a clear route for impressing on non-parties that they must abide by the NPT regime: simply adhering to the Treaty as non-nuclear-weapon States with all the implications of such a status. Why invent other routes that would in fact legitimise the present *status quo* and appear to Israel’s neighbours as sheer appeasement? Israel’s nuclear programme is a source of great anxiety in the Middle East. Security cannot prevail in the region in the shadow of Israel’s growing nuclear weapon capabilities.

As for South Asia, the agreement reached by India and the United States in the field of peaceful nuclear cooperation has weakened, in our

view, the NPT, and the nuclear non-proliferation regime in general. The argument that this agreement may bring India closer to the regime may seem plausible at face value. But an in-depth analysis of this agreement and its repercussions worldwide would indicate a double standard that favours those outside the Treaty and those who have managed to reach a nuclear weapon capability.⁵ Also, in sidestepping Pakistan, the agreement may exacerbate further tensions in South Asia.

Closely linked with the universality of the NPT, is the establishment around the world of nuclear weapon-free zones or zones free of weapons of mass destruction (WMD). With regard to nuclear weapons, such zones would further enhance the universality of the NPT. They have the additional advantage of preventing the deployment of nuclear weapons on the territories of the zones and providing negative nuclear guarantees (non-use or threat of use of nuclear weapons undertaking) for the benefit of the parties in such zones. The idea of WMD-free zones were suggested for the first time by Egypt in 1990, a proposal that coincided with worrying reports and actions indicating that Iraq was attempting to acquire equipment and materials relating to the construction of weapons of mass destruction. President Mubarak of Egypt emphasized that all weapons of mass destruction, without exception, should be prohibited in the Middle East, that all States of the region without exception should make equal commitments in this regard and that verification matters and modalities should be established to ascertain full compliance to the full scope of the prohibitions by all States of the region without exception.⁶ Soon after the adoption of Security Council Resolution 687 of 1991, ordering the dismantlement of weapons of mass destruction in Iraq and indicating that the dismantlement of these weapons could lead to the beginning of the establishment of a WMD-free zone in the Middle East, then Minister of Foreign Affairs of Egypt Amre Moussa forwarded a letter to the UN Security Council in which he pointed out that recent events in the Middle East induced many States to endorse Egypt's latest initiative, which was supported by the Security Council in the context of its Resolution 687 (1991). The Minister spoke of according pri-

⁵ For the US-India Agreement see remarks made by US Secretary of State Condoleezza Rice at the Senate Foreign Relations Committee as well as at the House International Relations Committee. Both were made on 5 April 2006. The house approved it overwhelmingly in July 2006 with minimal restrictions, whereas the Senate approved it in September. See also *International Herald Tribune* editorial "Still a Bad Deal", July 29-30, 2006.

⁶ See UN Docs. A/45/219 and S/21252, 18 April 1990.

ority to ridding the region of weapons of mass destruction. In order to accelerate the establishment of the Middle East as a WMD-free zone, Mr Moussa put forward a number of proposals:

a) "Egypt calls on the major arms-producing States – and particularly the permanent members of the Security Council – as well as Israel, Iran and the Arab States to deposit undertakings with the Security Council in which they clearly and unconditionally endorse the declarations of the Middle East as a region free of weapons of mass destruction and commit themselves not to take any steps or measures which would run counter to or impede the attainment of that objective.

b) Egypt calls on the arms-producing States and the parties to the Treaty on the Non-proliferation of Nuclear Weapons to step up their efforts to ensure that all Middle East nations which have not yet done so adhere to the Treaty, in recognition of the fact that this is a step of the utmost importance and urgency.

c) Egypt calls on the nations of the Middle East region which have not yet done so to declare their commitment:

1. Not to use nuclear, chemical or biological weapons,
2. Not to produce or acquire any nuclear weapons,
3. Not to produce or acquire any nuclear materials susceptible to military use and to dispose of any existing stock of such materials,
4. To accept the IAEA safeguards regime whereby all their nuclear facilities become subject to international inspection.

d) Egypt calls on those nations of the region which have not yet done so to declare their commitment to adhere to the Treaty on the Non-proliferation of Nuclear Weapons, as well as the Convention concerning the prohibition of biological weapons of 1972, no later than the conclusion of the negotiations on the prohibition of chemical weapons being conducted by the Conference on Disarmament in Geneva.

e) Egypt calls on Middle East States to declare their commitment actively and fairly to address measures relating to all forms of delivery systems for weapons of mass destruction.

f) Egypt calls on nations of the region to approve the assignment to an organ of the United Nations or another international organization of a role, to be agreed upon at a future date, in the verification of these nations' compliance with such agreements on arms reduction and disarmament as may be concluded between them."⁷

⁷ UN Docs. A/46/329 and S/22855, 30 July 1991.

The 1990 Egyptian initiative went beyond the 1974 initiative on establishing a zone free of nuclear weapons. In fact, it was the first time that all weapons of mass destruction were linked to each other in one basket. Without exaggeration, this paved the way much later for further linkage through the adoption of Resolution 1540 (2004) on WMD terrorism and the valuable study undertaken by a commission established (2006) by the Swedish Government on WMDs, which were dubbed “weapons of terror”.⁸

Closely linked with the NPT is the CTBT, which is also open to all States. Its entry into force has been delayed as a result of the lack of the required ratifications, including that of the United States. The Treaty will not enter into force until it has been signed and ratified by the 44 States listed in Annex 2 to the Treaty. This list comprises the States which formally participated in the 1996 session of the Conference on Disarmament and which appear in Table 1 of the December 1995 edition of “Nuclear Research Reactors in the World” and Table 1 of the April 1996 edition of “Nuclear Power Reactors in the World”, both compiled by the International Atomic Energy Agency.

However, the significant aspect of the CTBT is that an implementing organization is already in place in Vienna and the International Monitoring System (IMS) is already operating in that this system detected the nuclear weapon test that the DPRK carried out on 9 October 2006. These are unique features of a treaty that has not yet entered into force and are a good omen for the future of this Treaty.

The success of the early implementation of the CTBT should be an incentive for nuclear weapon States to implement Article VI of the NPT more fully, especially in the field of nuclear disarmament. The problem of universality involves not only non-adherence to WMD treaties but also lack of full implementation of the provisions of the treaties. Let me now move on to the CWC.

2. The CWC

There are now 182 parties to the CWC as compared to 178 in April 2006. Unlike the NPT, all provisions of the CWC are non-discriminatory. Also,

⁸ WMD Commission, *Weapons of Terror. Freeing the World of Nuclear, Biological and Chemical Arms*, Stockholm: Fritzes, 2006. For the state of adherence to the CWC, BTWC till mid-June 2006 see pp. 131 and 117 respectively.

the CWC establishes well-defined mechanisms that do not exist for the NPT. A number of States have not yet adhered to the Treaty. Among those that have not yet signed or ratified the Treaty are the Bahamas, Congo, Dominican Republic, Guinea-Bissau, Israel and Myanmar. The non-signatory States are Angola, Egypt, Iraq, Lebanon, DPRK, Somalia and Syria. At the time of writing, Angola, Congo, Iraq and Lebanon were expected to join soon. The reluctance to sign of at least one of the non-signatory countries, that is Egypt, is very much linked to the non-adherence of Israel to the NPT and other treaties of weapons of mass destruction.

Egypt is not passive on this issue because it has been and still is very much involved in aiming at establishing a zone free of weapons of mass destruction in the region. The idea of the zone received a new boost in the latest Arab Summit in Riyadh in March 2007 when the leaders of the Arab States agreed with President Mubarak that a mechanism should be created to activate the Egyptian initiative instead of just reiterating former positions, attitudes and resolutions. In this respect, the implementation of the resolution on the Middle East of the NPT Review and Extension Conference of 1995 supporting the establishment of a zone free of weapons of mass destruction was highlighted.⁹ Without this resolution there would have been no consensus at the 1995 NPT Review Conference on the extension of the Treaty. The three Depository Governments of the NPT co-sponsored that resolution and therefore it confers on them greater responsibilities for bringing this resolution into fruition.

This reference to the NPT is simply to make the point that we need to move on with the elimination of all WMDs. The Chemical Weapons Convention has certainly made great progress through its organization (OPCW) to convince more countries to adhere to the Convention. This is an achievement in itself, and an acknowledgment of the present efforts of its Director-General.¹⁰ The Treaty, like its sister-treaty, the NPT, is also experiencing some problems and challenges such as delays in observing the timetable for the destruction of declared CW stockpiles. The United States and Russia will be granted a five-year extension of the destruction deadline, which means April 2007-2012, yet even this extended deadline may not be

⁹ See *Final Document Part I: Organization and Work of the Conference* (New York, 1995), (NPT/Conf. 1995/32, Part I).

¹⁰ For the role played by the OPCW, see Sergey Batsanov, *Approaching The Tenth Anniversary of the Chemical Weapons Convention. A Plan for Future Progress*, *Nonproliferation Review*, Vol. 13, No. 2, July 2006, pp. 341-342.

met.¹¹ Sergey Batsanov, a leading expert in this field, rightly observes that the OPCW should seriously explore the possibility of closer interaction with other international organizations and arrangements to prevent WMD proliferation. For example, joint actions could be considered with the IAEA on the issue of creating a WMD-free zone in the Middle East.¹² This view demonstrates the close interrelationship between the treaties on weapons of mass destruction.

3. The BTWC

The state of adherence to the Treaty is less impressive than that of the CWC, which is probably due to the fact that the Treaty does not have an executive organ similar to that of the OPCW and lacks an effective verification system. As of April 2006, it had 155 Parties to it. Sixteen States have signed the Convention but have not ratified it, while more than 20 States have not signed it at all. In the first category, the States are: Burundi, Central African Republic, Cote-d'Ivoire, Egypt, Gabon, Guyana, Haiti, Liberia, Madagascar, Malawi, Myanmar, Nepal, Somalia, Syria, United Arab Emirates, Tanzania. Non-signatory States are: Andorra, Angola, Cameroon, Chad, Comoros, Cook Island, Djibouti, Eritrea, Guinea, Israel, Kazakhstan, Kiribati, Marshall Islands, Mauritius, Micronesia, Mozambique, Namibia, Nauru, Niue, Samoa, Trinidad and Tobago, Tuvalu and Zambia.

Like the NPT and the CWC, the BTWC is experiencing some difficulties. As just pointed out, the Treaty lacks a capacity for monitoring and verification, implementation and enforcement. An additional problem is that many governments have not adopted or fully implemented national legislations to ensure fulfillment of their obligations.

The last Review Conference of the Convention, held in December 2006, called for universal adherence to the Convention. It was a more or less successful conference, although the question of verification was perhaps its most obvious failure. Attempts in the past to study the verification problem had been brought to a standstill by the United States' lack of interest, which remained unchanged at the conference.¹³

¹¹ Ibid., p. 347.

¹² Ibid., p. 349.

¹³ See Jezz Littlewood, "Out of the Valley: Advancing the Biological Weapons Convention after the 2006 Review Conference", *Arms Control Today*, Vol. 37, No. 2, March 2007, pp. 12-16.

Success in solving the verification issue might help with regard to further adherence to the Treaty.

Closely related to the universality issue are the export control regimes and, more particularly, the Nuclear Suppliers Group (NSG)¹⁴ with regard to the NPT and the Australia Group (AG)¹⁵ with regard to both the CWC and the BTWC. What is needed are reliable assurances to all parties of supply of the materials and substances needed for their legitimate activities. Guidelines and policies should be adopted by the suppliers after close consultation with the potential recipient countries, which are now usually confronted with guidelines and policies worked out in their absence.

Lastly, Security Council Resolution 1540 of 28 April 2004 prescribed for the first time under Chapter VII of the UN Charter the way to contain, respond and act to face potential WMD terrorism. In order to assess adherence to the domestic legal requirements of the resolution, a committee of the Security Council has been created to review national reports submitted by States on their efforts to implement the resolution. After submitting its first report in 2006, the Committee's mandate was renewed for two years by Security Council Resolution 1673 of 27 April 2006. It is too soon to assess the Committee's work in this first phase, however the aforementioned report was encouraging.

Finally, SC Resolution 1540 contains provisions that indicate that the intention is to complement and reinforce, rather than replace and subvert, the negotiated Treaties. It also indicates that the obligations of the resolution should not be interpreted as conflicting or altering the rights and obligations under the treaty regimes. The resolution calls for the promotion of these Treaties, the adoption of their national implementation requirements and cooperation with the non-proliferation treaty organizations.¹⁶

In conclusion, the universality of WMD treaties and related instruments and regimes is a crucial element that ought to lead to equal treatment, fairness and an open opportunity to join and contribute to a world free of WMDs. Treaty-making has been, and should remain, the basic

¹⁴ IAEA Doc. INFCIRC/254, Feb. 1978. For part 1 as it stands today see INFCIRC/254/Rev. 6/Part 1, 16 May 2003.

¹⁵ See James I. Seevaratanan, "The Australia Group. Origins, accomplishments and challenges," *The Non-Proliferation Review*, Vol. 13, No. 2, July 2006, pp. 401-415.

¹⁶ Peter Crail, "Implementing UN Security Council Resolution 1540. A Risk-based Approach," *The Non-Proliferation Review*, Vol. 13, No. 2, July 2006, p. 360.

approach to universality. Security Council Resolution 1540 (2004) and its sister resolution 1673 (2006) on WMD terrorism may one day find their way into a single convention on combating terrorism in all its facets. It would not be an easy task, but a precedent exists in the single convention on drugs, another plague haunting us all.

In that context, an effective mechanism to achieve a WMD-free zone in the Middle East that would include all States of the region, some of which have not yet signed or ratified the relevant universal instruments, could follow one of the following paths:

First, in the Arab League context, an action plan is needed to follow up on the Riyadh Summit Declaration and Resolutions on an WMD-free zone and peaceful nuclear cooperation.¹⁷ In this context, it is important to activate a statement issued in Tunisia at the Arab Annual Summit in May 2004 calling for the convening of an international conference under the auspices of the United Nations for the establishment of a WMD-free zone in the Middle East. An important term of reference of such a conference would be the Middle East Resolution adopted at the Extension and Review Conference of the NPT in 1995 and sponsored by the Depository Governments, the UK, Russia and the US. Also, the work so far achieved by a special committee of the Arab League tasked with negotiating a draft treaty on the establishment of a WMD-free zone should be tabled. The Committee, after many years of diligent work, was suspended by the Arab League, a clear indication of Arab League members' frustration and displeasure with the lack of support and action on the part of the Depository Governments of the NPT.

The international conference, under UN auspices, could well be prepared through the UN General Assembly by establishing a preparatory committee that would hold three or four sessions preliminary to a conference also with three sessions, much like the Law of the Sea and the Law of Treaties Conferences.

The idea of an international conference would give a boost to the results obtained so far by the Arab League by bringing other States of the region, such as Israel and Iran, into play in an international framework. Secondly, and still in a UN context, resort could be made to the Security Council to implement the 1995 NPT Middle East Resolution. This could be an alternative route or a first step towards bringing the issue

¹⁷ The full text of the Riyadh Declaration of 29 March 2007 and the Resolutions adopted on the WMDs free zone in the Middle East and Arab peaceful nuclear cooperation are attached.

before a UN conference. Egypt's ideas put forward to the Security Council in 1991 could be re-examined.

Thirdly, if the peace process in the Middle East were to resume soon on bilateral and multilateral levels, and especially if the working group on Arms Control and Regional Security (ACRS) were reconstituted, this would be an opportunity to table the implementation of the 1995 NPT Resolution on the Middle East and the results achieved so far in the Arab League context.

The two most important issues to be resolved and settled in any attempt to establish a WMD-free zone in the Middle East are the geographic delimitations of the zone and the verification mechanisms within the zone, along with IAEA safeguards, OPCW verifications and any future BTWC verifications.

Hopefully these ideas may contribute to achieving the universality of all WMD treaties, a goal we are all striving for.

REPORT OF THE CONFERENCE

by *Mirko Sossai*

The international Conference on “The Tenth Anniversary of the Chemical Weapons Convention: Assessment And Perspectives”, under the High Patronage of the President of the Italian Republic, was organised by the Ministry of Foreign Affairs and the *Istituto Affari Internazionali*. It took place on 19 April 2007 at Palazzo Rospigliosi in Rome and was attended by representatives of the national institutions, academic world, industry associations and civil society with the participation of Amb. Rogelio Pfirter, Director-General of the Organisation for the Prohibition of Chemical Weapons. The conference was convened on the eve of the tenth anniversary of the entry into force of the Chemical Weapons Convention (CWC). It provided an opportunity to celebrate its important accomplishments and to reflect on future challenges, also with regard to the threat posed by terrorist networks.

The Conference was divided into three sessions, which focused on the following issues: the assessment of the Convention; disarmament and destruction challenges; disarmament and future prospects. The organisers prepared a list of questions for each session, with the aim of fostering an exchange of views among participants.

Several speakers emphasised that 2006 marked the beginning of a series of anniversaries of various treaties dealing with non-proliferation and disarmament: in addition to the CWC, in September 2006 there was the tenth anniversary of the opening for signature of the Comprehensive Test Ban Treaty; 2007 marks the 40th anniversary of the entry into force of the 1967 Outer Space Treaty, the 35th anniversary of both the first

United States-Soviet Union agreement on the limitation of their strategic arsenals (SALT 1) and the ABM Treaty; in 2008, the 40th anniversary of the conclusion of the Nuclear non-Proliferation Treaty (NPT) will be celebrated.

Though all these agreements have played an important role in enhancing peace and security, results are mixed. The participants shared the belief that the CWC regime is the most advanced with respect to other disarmament regimes.

1. Achievements

The CWC was opened for signature in January 1993 and entered into force on 29 April 1997. It is the first multilateral treaty that requires the total elimination of a type of weapon of mass destruction: all chemical weapons and chemical weapons production facilities are to be destroyed within an agreed timeframe.

The CWC contains not only disarmaments obligations, but is also aimed at preventing the proliferation of new weapons. In other words, each State Party is required not only to destroy all chemical weapons and chemical weapons productions facilities, but also to ensure that toxic chemicals and their precursors are only used for purposes not prohibited by the treaty.

In this respect, one of the essential features of the treaty is its advanced and elaborate verification and compliance system. The verification is based on routine on-site inspections of declared sites on the one hand and *ad hoc* challenge inspections on the other. The latter constitutes the most intrusive means introduced in the context of law on disarmament and non-proliferation: each State Party has the right to request on-site inspections in another State Party for the purpose of clarifying doubts concerning possible non-compliance.

The Organisation for the Prohibition of Chemical Weapons (OPCW) has been mandated to oversee the implementation of the Convention. At the domestic level, States are required to enact penal legislation encompassing all the activities prohibited by the Convention, to introduce export controls and appropriate industry regulations. 119 States Parties have adopted national legislation to implement the Convention. 95 % of them have also designated or established a national authority to serve as the national focal point for the relations with the OPCW and the other State Parties.

On the occasion of the tenth anniversary of the entry into force of CWC, there is more than one reason to celebrate the success of the CWC regime. Some of the achievements are impressive. The number of State Parties is 182, already representing about 98% of the global population and landmass, as well as 98% of the worldwide chemical industry, while the number of signatories is 188. Six countries – India, Russia, Republic of Korea, United States, Albania and Libya – have declared possession of CW stockpiles. 100% of the declared CW production facilities have been inactivated. 100% of the declared WP stockpiles has been inventoried and verified. 61 of the 65 chemical weapons production facilities declared to the Organisation by 12 States Parties have either been destroyed or converted for peaceful purposes. Over 30% of the 8.6 million chemical munitions and containers covered by the Convention have also been verifiably destroyed. Over 30% of the world's declared stockpiles of approximately 71,000 metric tonnes of chemical agent have been verifiably destroyed. Nearly 2,900 inspections have taken place at 200 chemical weapon-related and over 850 industrial sites on the territory of 79 States Parties since April 1997. Worldwide, well over 5,000 industrial facilities are liable to inspection. Manifold reasons explaining the success of the CWC regime were identified by the presentations.

The first, which differentiates the CWC from other disarmament and non-proliferation treaties, is its “non-discriminatory” character. All States parties are treated equally, regardless of whether or not they possess CW. The situation is clearly different from the one established by the NPT, which distinguishes “nuclear weapon States” from “non-nuclear weapon States”. A further crucial element of differentiation from the NPT is the CWC's integrity, as it does not admit reservations.

Secondly, it was argued that the success should also be attributed to the diminished interest in CW on the part of the two superpowers in the final years of the Cold War, due to the relatively limited weight of the existing CW arsenals in the military balance of power.

A third factor recognised during the Conference is the important role played by various actors: the OPCW *in primis*, but also some States and NGOs. The OPCW, unlike other monitoring bodies, is responsible for all aspects of treaty implementation. This makes the CWC a ‘living instrument’ with the capacity to deal with inevitable unforeseeable implementation problems. It was also noted that the Organisation has constantly been committed to helping non-Party States to join the CWC. The recent accessions of Libya, Sudan, Serbia and Montenegro

demonstrate the importance of dialogue and the potential of multilateralism. The OPCW Director-General stressed that meetings with delegations of non-parties have provided a unique opportunity to impress upon the interlocutors the importance that the international community attaches to the universality of the CWC and also to underscore the fact that the norms against chemical weapons can now be regarded as truly global.

A further aspect of the synergy between the CWC and the OPCW is that the latter has promoted a culture of cooperation and consultation among the delegations of the member States. A significant number of States are involved in the decision-making with regard to a specific issue, as the Convention gives significant powers to both the Executive Council and the Conference of States Parties. One of the speakers however pointed to the high politicisation of every CWC issue, including some seemingly purely administrative and technical points: it goes without saying that CWC issues are generally informed by the cost, scope and level of intrusiveness that the States Parties believe are necessary. It was argued that issues are sometimes politicised for the wrong reasons and that the progress in the implementation of the regime has therefore been slowed down.

During the Conference, several participants stressed the role played by Italy in the development of the CWC regime. Already in the final phase of the negotiations in 1993, Italy's contribution was crucial within the Western group. Amb. Pfirter expressed deep appreciation for Italy's strong support for the objectives of the Convention and the concrete assistance it provides to the OPCW in its work: the Director-General stressed its exemplary commitment, for example in the field of the elimination of remnants on the one hand and in the capacity building on the other. In this regard, the activities of the Italian NBC Joint Logistic Technical Centre, based in Civitavecchia, deserve attention. Its institutional tasks include the identification, recovering, storage and destruction of old and abandoned CW discovered on national territory. In addition, the two training areas at the Centre's headquarters offer a valuable contribution to the assistance and capacity building programmes. Representatives of the Government and Parliament confirmed Italy's full support for the CWC and its intention to continue to play an active role.

To conclude on the contribution of key-actors to chemical disarmament, one should not forget the role of NGOs and in particular the Green Cross, which also contributed to the organisation of the

Conference. Representatives of this organisation presented the “Legacy Program”, which is an international effort by national affiliates of Green Cross international in the United States, Belarus, Canada, Germany, Italy, Russia, Switzerland and the Ukraine. In the framework of this initiative, they have set up and manage 12 public outreach offices at CW stockpiles and other sensitive sites.

2. Problems and Challenges

Despite the progress in the implementation of CWC, various challenges for the future of chemical disarmament and non-proliferation were identified. At the Conference the discussion was thought-provoking and several recommendations were formulated: all participants agreed that the Second Review Conference, which will take place in April 2008, represents an important opportunity for States Parties and OPCW to deal with the main challenges.

2.1 *Universality*

Thirteen countries are still not members of the OPCW. The Korea peninsula and the Middle East are the two geographic areas that pose the greatest challenge to achievement of universal adherence to the CWC. The OPCW has recently made efforts to generate positive momentum towards accession to the Convention in Egypt, Iraq, Israel and Lebanon. Iraq and Lebanon have already decided to join but there are delays due to domestic procedures. The position of Egypt is different. It was observed that it is still difficult – if not impossible – for this country to accede to the CWC as long as Israel does not adhere to the NPT (Egypt ratified this instrument in 1981). In the opinion of one speaker, this demonstrates the close interrelationship between the treaties on weapons of mass destruction. One of the most challenging questions is therefore how to build confidence and increase transparency in the region. It is noteworthy that since 1990, Egypt has supported the initiative of establishing a zone free of weapons of mass destruction. But this proposal has been received with mixed reactions. As for Israel, it was hypothesized that Israel could join the CWC in the near future, given that chemical weapons are no longer a crucial issue since Iraq has ceased to be a threat after the collapse of the regime of Saddam Hussein. The position of the countries that have only signed the Convention

(Bahamas, Congo, Dominican Republic, Guinea Bissau, Israel and Myanmar) remains to be seen. Under article 18 of the Vienna Convention on the Law of Treaties, signatory States are “obliged to refrain from acts which would defeat the object and purpose of a treaty”. In addition, it was observed that the CWC does not abrogate the 1925 Geneva Protocol for the prohibition of the use of asphyxiating, poisonous or other gases, and of bacteriological methods of warfare, the continued validity of which is expressly emphasized in article XVI of the CWC. The Protocol is therefore still in force and also prohibits the use of CW in warfare. Unfortunately, unlike the CWC, reservations to the Protocol are admitted and several States had employed this tool to retain the right to use CW if those weapons were used first against them or their allies. It is desirable that these reservations be soon withdrawn: a number of State Parties (among them Australia, Russia and Spain) has already done so.

A further issue examined in one of the presentations was the effects of war on the CWC. It is not clear whether this situation provokes a suspension of the operation of the Convention. In this regard, it was observed that the CWC in any case contains a generous withdrawal clause. Each State Party can exercise this right “if it decides that *extraordinary events*, related to the subject-matter of the Convention, have jeopardized the supreme interests of its country.”

This introduces the question of the contribution of the CWC to the development of customary international law. This is a crucial issue, since customary law is binding for all States. According to the recent study carried out under the auspices of the International Committee of the Red Cross, the prohibition of the use of CW is a norm of customary international law applicable in both international and non-international armed conflicts. It is also noteworthy that Article 8 (2) (b) (xviii) of the Rome Statute of the International Criminal Court considers “employing asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices” as a war crime, in respect of which the Court has jurisdiction. As for criminal prosecution at the domestic level, it is significant that on 9 May 2007 the Court of Appeal in The Hague (Netherlands) sentenced a Dutch national, F. van Anraat, to 17 years imprisonment for complicity in war crimes committed by Saddam Hussein and others. In 1987 and 1988, during the armed conflict with Iran, the Iraqi regime used chemical weapons – such as mustard gas – on a large scale in Northern Iraq and Iran, causing the death or permanent injury of many thousands of Kurds and Iranians. The Court found that

Van Anraat, prior to those attacks, had supplied Iraq for years with large quantities of Thiodiglycol (TDG), knowing full well that the substance could and would be used for the production of mustard gas.

To conclude on the issue of universality, a comparison with the less satisfactory discipline of nuclear weapons is particularly significant. The 1968 NPT is one of the multilateral treaties that enjoys the greatest number of ratifications, but it lacks the necessary universality because of the factual importance of the absentees. As to whether or not it forms customary international law, the International Court of Justice, in the 1996 advisory opinion, could not conclude definitively “whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence”.

After having pointed out the confusion in the reasoning of the Court between the *jus ad bellum* and the *jus in bello*, one of the speakers held that the use of nuclear weapons is clearly subject to the general principles of international humanitarian law: it follows, for example, that indiscriminate use or use of nuclear weapons against civilians is prohibited. Moreover, since the prohibition of means and methods of warfare which cause superfluous injury or unnecessary suffering is not contested, one could still consider the possibility of the use of ‘clean’ nuclear weapons in very specific scenarios, such as in the middle of the ocean.

2.2 Complete disarmament within 2012

It is now clear, ten years after entry into force of the CWC, that the deadline for the complete destruction of the stockpiles established in Article IV, was inadequate. According to the sources provided by various speakers at the Conference, as of the end of April 2007, the United States has destroyed 40 % of its stockpile, India 53 percent, and A State Party (according to OPCW jargon) 67 percent. The estimation for Albania is 20 percent, while Libya, which only joined the Convention in 2004, has not yet begun. The situation in Russia appeared to be very difficult from the very beginning: it took 9 years to destroy the first 10 % of its arsenal. During the last year, Russia has made significant progress towards the destruction of 20 % of its 40,000 metric tons stockpile, but this last figure seems to be controversial.

On 8 December 2006, the 11th Conference of the State Parties granted extensions to five of the six possessor States (United States, Russia, India, Libya, A State Party). The Conference extended the deadline for A State Party until December 2008, for India until April 2009 and for

Libya until December 2010. The United States and Russia obtained the maximum extension possible under Part IV of the CWC Verification Annex: until 29 April 2012. In Albania, completion of the destruction process was expected in May/June 2007.

It was observed that the United States and Russia could fail to meet the 2012 deadline: according to one of the most pessimistic estimates, destruction in the United States will not be completed before the end of 2023.

Several reasons for delays were suggested: financial constraints, political resistance and technical challenges.

For Russia, insufficient financing has represented the main problem: destruction is indeed a very expensive business. At the Conference, one of the presentations focused on the cost issues: Article IV (16) and Article V (19) provide that the costs for the destruction and verification are met by the CW possessor States. It is significant that soon after the CWC entered into force, both Russia and the United States attempted to limit their expenditures for reimbursing verification costs. The debate on the reimbursable part of an inspector's salary took up much of the first meetings of the Conference of the State Parties: a compromise was only reached at the third session.

Both additional national financing and international assistance have contributed to improving the Russian destruction programme. The *Global Partnership* is the most important financial support initiative. It was launched at the G8 Summit in Kananaskis, Canada (June 2002). G8 countries announced that they would pledge \$20 billion over the next ten years to fund projects, above all in Russia, to achieve the goal of non-proliferation of weapons or materials of mass destruction. The priority areas identified by Russia are: the improvement of the physical security of facilities and WMD materials, the prevention of radiological contamination and, finally, the destruction of chemical weapons agents. On 5 November 2003, Italy and Russia signed a bilateral agreement for assistance in the construction of the chemical weapons destruction facility in Pochev. Italy pledged 365 million for 2004-08 but implementation has yet to start.

As for the United States, several speakers observed that the initial success of the destruction program created a sense of complacency in political circles characterised by increasing indifference towards disarmament. Other presentations pointed to technical problems, such as unanticipated heavy-metal contamination and fires at destruction sites.

To address the challenges of destruction, the Conference of States Parties, at its 11th session in December 2006, decided that representatives of the Executive Council should conduct additional visits to CW destruction

facilities in the United States and Russia. The visits are intended as an “additional transparency and confidence-building measure”.

The question arises as to what will happen if one of the CW possessor States should fail to meet the deadline. Some speakers opposed a formal amendment of the Convention, since they held that this approach could favour attempts to renegotiate other important provisions.

A more elegant solution would be to apply the existing provisions of the CWC. As for the reactions to non-compliance, Article XII contemplates “measures to redress a situation and ensure compliance”. In this framework, it was suggested that the Conference of States Parties could have a certain margin of discretion in deciding the types of measures.

It is important to recall that, in cases of serious damage to the object and the purpose of the Convention, the Conference of States Parties can recommend collective measures in conformity with international law. Furthermore, in cases of particular gravity, the issue may be submitted to the UN General Assembly or the Security Council. In the case of a CW possessor State missing the deadlines, one cannot exclude the possibility of the Security Council determining the existence of a threat to peace and adopting measures not involving the use of force under Article 41 of the UN Charter. However, it was argued that such extreme measures are hardly practicable: for the present, it is difficult to imagine a State intending to hide and keep parts of its chemical arsenal.

2.3 Non-proliferation

The verification regime serves two different functions: confidence building and prevention of cheating. Against this background, it was argued that the CWC system works well and that the evaluation remains positive, also with regard to the inspection activities designed to prevent diversion of chemical substances from peaceful to military purposes. However several challenges were identified.

A first aspect is the reluctance of the States Parties to use the most radical verification tool: the right to request challenge inspections. A persistent element of concern is that some States Parties may not have declared all their CW facilities. In 2005, the US State Department reported possible clandestine CW programs in Russia, China, Iran and Sudan. To address these concerns, the United States made recourse to bilateral channels. Nevertheless, in a hypothetical scenario of grave non-compliance, the challenge inspection mechanism would constitute the only effective way to detect non-compliance.

Other participants at the Conference pointed out the imbalances in the design of the CWC regime: they stressed the heavy emphasis on the verification of CW destruction (85% of all inspector-days) at the expense of certain types of industry inspections.

The issue of industry verification needs to be considered in the framework of the potential risk of scientific and technological developments. Article XI affirms the rights of States Parties to economic and technological development, and access to technology for purposes not prohibited under the CWC. However, one should not forget the 'dual use' nature of scientific research and the potential for misuse of the technological developments. While the system of routine on-site inspections at Schedule 1 and Schedule 2 facilities has been adequate, 'other chemical production facilities' (OCPFs) have remained almost untouched by the verification regime. OCPFs are defined as plant sites producing unscheduled discrete organic chemicals (cf. Part IX of the CWC Verification Annex). In recent years, the number of these chemical production facilities has significantly increased. Modern technology makes them multi-functional and flexible: in some commentators' view, this means they can easily be diverted to CW production. It was observed that the current intensity of inspections at the OCPF (between 1 and 2,5% per year) does not offer a real deterrent. The OPCW Director-General also agreed on the importance of strengthening the non-proliferation aspects of the Convention through an enhanced regime concerning industry verification, especially in the category of OCPF. In this context, the representative of the Italian Federation of Chemical Industries (Federchimica) affirmed the continuing firm commitment of the private sector to the implementation of the CWC, in a constant spirit of collaboration with the national authorities and the OPCW.

To conclude on the measure to prevent the proliferation of CW, it was suggested that export control regimes should be strengthened. In particular, the issue of applying export controls to Schedule 3 chemicals was raised.

2.4 Non-Lethal Chemical Agents

A further serious challenge posed by scientific and technological developments is constituted by the production and use of non-lethal chemical agents. Their employment as a method of warfare is clearly prohibited. Although the CWC provides a specific "law-enforcement" exemption (Article II.9.d), it is controversial whether non-lethal agents may be used for counter-terrorism operations. It was suggested

that the Second Review Conference in April 2008 should address this important challenge.

2.5 Terrorism

Terrorism is perceived as a major threat to peace and security at the beginning of the XXI century. In February 2007, the Security Council devoted a meeting to the issue of cooperation with international organisations in the implementation of Resolution 1540 (2004), which is aimed at preventing the access by terrorists to weapons of mass destructions.

On that occasion, the OPCW Director-General pointed out that the CWC is not designed to address the threat of chemical terrorism directly. Nevertheless, by helping States Parties to meet all requirements regarding nation implementation of CWC, the OPCW contributes to ensuring that dangerous chemicals are not misused in any manner, including for terrorism.

Assistance to States Parties remains fundamental also for the fight against terrorism. It was observed that, in many cases, delays in the fulfilment of CWC obligations are not a result of a lack of political will, but are due to a lack of specific expertise. The Conference of States Parties adopted a plan of action to assist Governments who have not yet fully implemented the Convention.

3. CWC as a model for other WMD initiatives

The final issue relates to the impact of the CWC regime on the development of other disarmament and non-proliferation initiatives. Does the CWC constitute a model? The perception at the Conference was that the answer should be positive. It is true that the CWC and the OPCW were products of the final phase of the Cold War and could not have emerged in a different historical scenario and that the attempts to use the CWC as a model have not been successful (the CTBT, for example, is still far from entering into force). At the same time, there are a number of lessons to be drawn from the 10-year experience of the CWC, which may constitute a valuable reference for other WMD initiatives: the CWC has created a *non-discriminatory* disarmament and non-proliferation regime, *strictly* controlled by a mix of cooperative and more forceful *verification* techniques, with a special focus on building *capacity, transparency* and *confidence*.

*Under the High Patronage of the
President of the Italian Republic*

INTERNATIONAL CONFERENCE

ORGANISED BY



Ministero degli Affari Esteri



Istituto Affari Internazionali

THE TENTH ANNIVERSARY OF THE CHEMICAL WEAPONS CONVENTION: ASSESSMENT AND PERSPECTIVES

ROME, 19 APRIL 2007

*Palazzo Rospigliosi
Via XXIV Maggio, 43*

PROGRAMME

*Special thanks to Green Cross Italia
for contributing to the conference*

• SIMULTANEOUS TRANSLATION: ENGLISH/ITALIAN •

09.15-10.45 OPENING SESSION

Vittorio Michele Craxi, Undersecretary of State, Italian Ministry of Foreign Affairs, Rome

Stefano Silvestri, President, Istituto Affari Internazionali, Rome

Umberto Ranieri, Chairman of the Foreign Affairs Committee, Italian Chamber of Deputies, Rome

Guido Pollice, President, Green Cross Italia, Rome

Rogelio Pfirter, Ambassador, Director -General, Organisation for the Prohibition of Chemical Weapons-OPCW, The Hague

10.45-12.45 ASSESSMENT OF THE CONVENTION

Of all the disarmament and non-proliferation initiatives, the CWC seems to be the most effective.

What is the legal and political assessment of the CWC?

What is the relationship between the CWC and humanitarian law?

What are the remaining, grey areas?

What progress in achieving the goal of universality?

CHAIR: **Elio Pacilio**, Vice-President Executive, Green Cross Italia, Rome

Sergey Batsanov, Director, Geneva Office of International PUGWASH

Natalino Ronzitti, Professor of International Law, Faculty of Law, LUISS University; Scientific Advisor, Istituto Affari Internazionali, Rome

Michael Bothe, Professor Emeritus of International Law, J.W. Goethe University, Wilhelm Merton Centre for

European Integration and International Economic
Order, Frankfurt/Main

Daniel Nord, Deputy Director, Stockholm Institute of
Peace Research, Stockholm

12.45-14.00 Buffet-lunch

14.00-15.45 DISARMAMENT AND DESTRUCTION CHALLENGES

Despite progress, actual implementation of the CWC is moving slower than expected; requests for extensions of the final date for the destruction of the declared chemical weapons stockpiles have been approved. Moreover, the disarmament pledge is not immune to verification discussion.

Which are the technical, economic and political difficulties slowing down the process?

Can the reliability of the verification mechanisms be enhanced?

CHAIR: **Stefano Silvestri**, President, Istituto Affari Internazionali, Rome

Rein Müllerson, Professor of International Law, School of Law, King's College of London, University of London

Alexander Kelle, Lecturer in International Politics, School of Politics, International Studies and Philosophy, Queen's University of Belfast, UK

Antonello Massaro, NBC Interforce Technical Logistic Centre, Civitavecchia

Miriam Ramella, Representative of the Italian Ministry

for Foreign Trade, Rome

Bruno Brianzoli, Member of the Board, Federchimica, Milan

15.45-16.15 Coffee-break

16.15-18.00 **DISARMAMENT AND FUTURE PROSPECTS**

Examining past experience might allow to draw meaningful lessons for the future, also in view of the next Review Conference.

How to make the CWC fully successful? Is the CWC experience somehow applicable to other disarmament and non-proliferation regimes? Can the success of the CWC have an impact on similar initiatives in the Biological and Nuclear sector? What needs to be done to reduce significantly the risk of a spread of weapons of mass destruction?

CHAIR:

Carlo Trezza, Ambassador and Permanent Representative of Italy to the Conference on Disarmament, Geneva

Yoram Dinstein, Professor Emeritus of International Law, Tel Aviv University

Mohamed Shaker, Ambassador, Vice-chairman, Egyptian Council for Foreign Affairs, Cairo

Finn Longinotto, Legacy Programme Fellow, Global Green USA, Washington

18.00-18.30 **CONCLUDING REMARKS**

Giacomo Sanfelice di Monteforte, Minister Plenipotentiary, Deputy Director General for Multilateral Political Affairs and Human Rights, Italian Ministry of Foreign Affairs, Rome

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