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The OPCW at five: balancing verification in evolving circumstances

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The negotiation of the Chemical Weapons Convention (CWC)[1] began in the Conference on Disarmament (CD) in Geneva[2] in 1969 and concluded in 1992.[3] The CWC was heralded as a major breakthrough in multilateral arms control, as it was the first multilateral treaty that completely banned an entire class of weapons, and went further than any previous treaty in the depth, extent and intrusiveness of its verification provisions. Verification under the CWC includes: compulsory national declarations about relevant industrial and military activities; the destruction of chemical weapons (CW) within a set time-frame with intrusive verification of such activity; and a regime of routine inspections of declared industrial and military facilities. Additional features are the possibility of challenge inspections, whereby a state party can request an inspection of any site in another state party at short notice, and provisions for the investigation of alleged use of CW. Ten years on, the CWC is still regarded as setting the benchmark for verification provisions for multilateral disarmament.

The Preparatory Commission (PrepCom) process (from February 1993 until entry into force on 29 April 1997) and the first two years of operation of the CWC were characterised by political difficulties.[4] However, by the end of 1999 there was a sense that states parties were becoming more co-operative and that the Organisation for the Prohibition of Chemical Weapons (OPCW) was gradually taking shape and heading in the right direction.[5]

This chapter considers progress in the implementation of the CWC from the beginning of 2000 until the conclusion of the Seventh Conference of States Parties (CSP) on 11 October 2002. In this period, three groups of issues have been prominent: the OPCW budget; the management of the Technical Secretariat (TS); and, particularly

since 11 September 2001, the potential role of the OPCW in responding to the heightened awareness of the risk of chemical terrorism. These issues are discussed, followed by a brief report on the status of the CWC as of October 2002. This is followed by a discussion of future challenges, including issues to be addressed at the first CWC Review Conference (Revcon), which is to be held in April/May 2003.

Overview of key issues

After a number of difficulties in the first two years of the OPCW,[6] the year 2000 appeared to begin on a much more positive note. In particular, in the lead-up to the Fifth CSP, which took place in May 2000, there was a sense that the organisation had turned a corner and that states parties had developed a greater maturity and sense of common purpose which would augur well for an effective and efficient OPCW.[7] The United States had managed to submit its industry declarations just prior to the Fifth CSP, thus relieving the concerns of a number of other states parties that their industry facilities were receiving an undue burden of Schedule 2 inspections.[8] The Executive Council (EC) had managed to agree on a draft OPCW budget for 2001 which, together with a much more co-operative approach by most states parties than had been evident at the first four CSPs, resulted in the Fifth CSP being the first such conference to finish on schedule.

In addition, during the Fifth CSP, José Bustani of Brazil was re-elected for a second term as Director-General (DG). This was the most controversial issue of the Fifth CSP. Proponents of his re-election argued that it would provide greater stability to the OPCW as it faced new challenges, but a considerable number of states parties, while not necessarily opposed to his being given a second term, considered that the appointment should have received more consideration.[9] Several states parties expressed serious concerns about the 'hasty, premature process'.[10]

Unfortunately, the general sense of goodwill and co-operation among the states parties was rather short-lived. By the end of 2000, budget issues had become a major concern. As a consequence of the financial problems facing the organisation, very limited verification of chemical industry took place in 2001 and the first part of 2002. This resulted in substantial underutilisation of the inspectorate, which caused considerable frustration and loss of morale within the TS and a loss of credibility of the OPCW.

The OPCW budget

The OPCW budget approved by the Fifth CSP for 2001 was €60.2 million (the same in nominal terms as the 2000 budget), and was intended to provide for 240 inspections. However, there were unanticipated increases in operating expenses during 2000. By the end of 2000, the financial problems had become a major concern, and the DG informed the EC that a supplementary budget for 2001 would have to be sought from the CSP. At the Sixth CSP in May 2001, the decision was taken to apply the OPCW's 1999 cash surplus of €2.7 million towards the deficit incurred in 2000. The Sixth CSP approved a budget of €61.9 million for 2002 (considerably less than the draft proposal originally prepared by the TS). At the beginning of 2002, the estimated cash income available to the OPCW stood at €58 million, as compared to the approved budget of €61.9 million. This called for continued 'austerity measures'.[11] Several states parties have made substantial voluntary contributions to enable the OPCW to maintain a more reasonable level of activities for the remainder of 2002.[12]

The financial problems that occurred between 2000 and 2002, including the resulting €6 million deficit for 2002, were the consequences of a number of factors, including: the decision taken by states parties for a virtually 'zero growth' budget between 1999 and 2001; underestimation of the compulsory increases in the fixed costs of running the organisation, most notably staff-related costs;[13] unrealistic budgeting for income in the areas of reimbursement of Article IV and V verification costs;[14] the slow rate of payment by the possessor states of invoices for CW-related inspections carried out under articles IV and V; and a significant number of states parties' continuing habit of delaying payment of their assessed contributions. As discussed below, a number of states parties also considered that another cause of the financial problems was financial mismanagement by the TS.

The financial problems have had a major impact on the TS. For example, the 2000 budget increased the number of approved fixed-term TS posts from 491 to 507. However, following a decision by the Sixth CSP, the TS continued to keep 30 fixed-term posts unfilled. As of October 2002, only 453 of the 507 approved fixed-term posts were filled. Including staff on short-term and temporary assistance contracts, the total personnel strength was 506, from 70 different states parties. Further, because of the tenure policy, many of the most experienced staff members

of the OPCW (including the originally recruited inspectors) may leave in the next few years.[15]

In April 2002, a draft programme of work and a budget for 2003 of €69.9 million were developed by the TS for consideration by the EC.[16] After extensive negotiation by the EC, the budget eventually agreed by the Seventh CSP was €68.6 million, up 10.7 percent on the 2002 budget.[17] There was a distinct expectation that this budget would enable the full deployment of current TS personnel in 2003 and meet the expected increase in workload.

Management of the OPCW

Decision making by the OPCW, including on verification issues, continued to be slow and difficult, which has added to the frustration of the TS.[18] This in turn exacerbated the difficulties encountered earlier in the respective roles of the EC and the TS in the decision-making processes. For example, some states parties were expressing the view that the TS was making decisions which should have been referred to the EC.[19] There were concerns on the part of some states parties that the financial problems were at least partly a result of mismanagement of the OPCW budget by the TS and that the DG had failed to fully inform the EC about measures to improve financial controls and obtain more accurate estimates of operating costs of the TS. On the other hand, concerns were being expressed by the DG that the EC was attempting to 'micromanage' the TS.[20] The situation within the EC and TS became more strained during 2001 as a result of the financial crisis.

By the end of 2001, the DG had lost the confidence of a number of states parties, including some of the major financial contributors.[21] There was a recognition that, for the OPCW to be successful, all states parties needed to have full confidence in the DG. At this time, the US accused Bustani of poor management, particularly of the OPCW finances, and called for a new DG to be appointed.

Following inconclusive consideration of the DG issue at the 28th session of the EC between 19–22 March 2002, a first Special Conference of States Parties was convened on 21 April 2002 to vote on a motion to end Bustani's tenure. States parties voted 48 in favour, 7 against (with 43 abstentions) to do so. The vote broke largely along regional lines, with the majority of 'yes' votes coming from the Western European and Others Group (WEOG) and the Eastern European (EE) group, and most of the abstentions coming from the remaining three regional groups.[22]

However, it would be simplistic and inaccurate to suggest that all the states parties in WEOG and the EE group wanted Bustani replaced, or that the majority of the states parties of the other three regional groups were indifferent.[23]

Irrespective of how the termination of Bustani's tenure is interpreted, two things are clear. First, despite the management problems that had developed over the previous two or so years, Bustani's energy and enthusiasm had a very positive impact in the first few years of the OPCW's existence. Second, there are still serious systemic problems facing the OPCW, in particular the respective roles of the EC and TS in its decision-making processes and operation, and the differences of view on the OPCW budget and on the optimum size of the organisation (which, as discussed below, will become more acute in the next few years as the requirement for monitoring CW destruction increases). The forthcoming Revcon will be an excellent opportunity to consider these issues. As the then Acting DG, John Gee, stated in his opening statement of the 29th session of the EC, it is important for the OPCW to put the painful issues behind it and look to the future.[24]

The first Special Conference of States Parties was re-convened on 25 July 2002 to appoint Ambassador Rogelio Pfirter of Argentina as the new DG. Since then, Pfirter has undertaken an active programme to improve the transparency of TS management, ensure a greater sense of common purpose between states parties and the TS, and ensure adequate and proper use of financial resources. During the Seventh CSP in October, there was a strong sense that the states parties and the OPCW had moved beyond the difficult situation they had faced earlier in the year. And, while the Seventh CSP had difficult issues to deal with, it managed to conclude almost on schedule (at 2300 hours on 11 October), having agreed on a reasonable budget (see above) as well as agreeing to shift the focus of industry inspections towards a greater emphasis on discrete organic chemical (DOC) plant sites.

Chemical terrorism

The terrorist attacks on the US on 11 September 2001 increased the international community's awareness of the threat posed by non-conventional forms of terrorism, including chemical terrorism. It was recognised that universality (or universal membership)[25] and full implementation of the provisions of the CWC would raise the barriers to chemical terrorism. In particular, the requirement under Article 1 of the convention that all CW be destroyed would make such weapons less accessible

to terrorist groups. The requirements of Article VII that states parties criminalise the prohibitions of the CWC (that is, make it a criminal offence for individuals to engage in activities prohibited by the CWC) and enact effective penal legislation would reduce the possibility that a CWC state party could inadvertently become a safe haven for those who seek CW as a tool of terror, and thus help to reduce the threat posed by chemical terrorism. Likewise, the transfer (export control and monitoring) obligations under Article VI would serve to reduce the risk of diversion of toxic chemicals—either weaponised CW or precursors of military chemical agents (including those listed in the CWC schedules[26]), or other toxic chemicals—for terrorist uses. The provision of emergency assistance under the provisions of Article X was also recognised as a key role for the OPCW in responding to an incident of chemical terrorism.

In response, the EC established an anti-terrorism working group during its 27th session in December 2001.[27] This working group has met several times and discussed the issues of obtaining universality, full implementation of all provisions (including national legislation) to raise the barriers to chemical terrorism, and the provision of emergency assistance following a chemical terrorism incident.

The status of current activities

National implementation obligations

Implementation of the CWC by states parties requires the adoption of a range of legislative and administrative measures to enable each party to enforce its international obligations at a national level, including the collection of information required for declarations and enabling OPCW inspectors to conduct inspections on its territory.[28] Since entry into force there have been several workshops (in The Hague and regional workshops) to help states parties prepare their national legislation. As of October 2002, only 43 percent of states parties had informed the TS that they had legislation in place. Providing legislative support has been a major activity of the TS Legal Division since entry into force, as legislation is necessary to ensure that the TS is able to conduct inspections without delay. Fortunately, no inspections have been delayed so far because of lack of national legislation.

However, the issue has taken on a new dimension with the recognition of the importance of national implementation and criminalisation of the convention's

prohibitions as a means to raise the barriers to chemical terrorism.[29] A solid legal network of implementing legislation would enable the OPCW to fully implement its nonproliferation mandate and eliminate 'safe havens' or loopholes that could be exploited by chemical terrorists. Unfortunately, TS activities to support legislative/implementation assistance have also been delayed by the OPCW's financial problems.[30]

Declarations

The overall poor rate of submission of initial declarations was a major disappointment in the first two years after entry into force of the CWC.[31] Following a concerted effort by the TS in early 2000, all initial declarations had been submitted by the Fifth CSP, including the American industry declaration.[32] However, it has become clear that a considerable number of initial declarations are incomplete. It has also been recognised that the declaration requirements for states parties are complex and that some have experienced difficulty in compiling the required information because of technicalities.[33] The TS, in co-operation with a number of interested states parties, has been assisting those which have had difficulty in completing their declaration requirements.[34] The TS has also been requesting a number of states parties to check and provide more accurate information, including on other chemical production facilities (OCPFs) producing DOCs. More recently, the TS has been undertaking clarification procedures to correlate declared information with chemical production information available from open sources.

Routine inspections

The first OPCW inspection began on 1 June 1997 (just over one month after entry into force). As of 4 October 2002, the TS had carried out 1,246 inspections at 546 sites in 51 states parties.[35] The breakdown of inspections is as follows: 294 inspections at CW destruction facilities; 249 to CW production facilities; 174 to CW storage facilities; 20 to abandoned CW sites; 39 to 'old CW' sites; 102 to Schedule 1 facilities; 196 to Schedule 2 plant sites; 90 to Schedule 3 plant sites; and 82 to DOC plant sites. OPCW inspectors had spent a total of 71,000 person-days on missions. As of 4 October, 130 inspections had been conducted in 2002.

These figures may look impressive. However, since the beginning of 2001, because of financial problems, the TS has been unable to conduct all the industry inspections

originally planned and budgeted for. For example, in 2001 the TS was only able to conduct 28 Schedule 2 inspections (70 percent of the planned number), 12 Schedule 3 inspections (29 percent of those planned) and 17 DOC inspections (53 percent of those planned). More recently, the TS has calculated that it will only be able to conduct just over half of the 307 inspections originally approved for 2002 unless supplementary funding, in the form of additional assessments to the states parties or voluntary contributions, is received during 2002.

Overall, there has been a high degree of satisfaction within the OPCW and among states parties and personnel at industrial facilities at the way industry inspections have been conducted. Although minor problems have occasionally arisen in the course of some inspections,[36] for the most part they have been carried out smoothly and with the full co-operation of the inspected state party.[37] The increased number of states parties being inspected (from 35 at the end of 1999 to 51 by the end of 2001) is a promising trend. This is a consequence of the greater number of inspections of Schedule 3 and DOC plant sites which are being selected for inspection using an algorithm designed to ensure broad geographic distribution.[38] In addition to spreading the inspection load among a greater number of states parties, this results in more inspections being conducted at 'CW-capable' facilities which many experts regard as most relevant with respect to recent CW proliferation programmes.[39] The Seventh CSP agreed on a programme of 132 Article VI inspections for 2003, with 16 Schedule 1, 38 Schedule 2, 18 Schedule 3 and 60 DOC inspections.[40]

CW destruction

By October 2002, OPCW inspectors had verified the destruction of approximately 6,900 tonnes of chemical agents and more than 2 million munitions. The US, India and 'a state party' which has been identified by VERTIC as South Korea[41] have each destroyed a substantial portion of their Category 1 CW. India and South Korea are expected to meet the CWC 10-year CW destruction deadline.[42] Russia is having considerable difficulty in destroying its CW. In 2000, it was granted an extension to an intermediate destruction deadline.[43] In October 2001 it requested an extension of the 10-year destruction deadline and the intermediate timelines, which was approved in principle at the Seventh CSP. Russia is currently receiving both technical and financial assistance from several states parties, including the US and some members of the European Union (EU), to assist it in meeting its CW

destruction obligations. Some semi-official American sources suggest the US may also have difficulty in meeting the 10-year timeline.

Consultations, co-operation and fact-finding

A number of other states parties have also used the informal bilateral consultation procedures, provided for in Article IX of the treaty, to consult and seek clarifications from a number of states parties on the information provided in their declarations. The US has reported that it has used these procedures and in a number of cases has achieved satisfactory resolution of outstanding issues.[44]

No challenge inspections had been requested or conducted by October 2002.[45] However, several practice challenge inspections (PCIs) had been conducted, including a number in collaboration with OPCW inspectors. One of these exercises simulated the entire challenge inspection process from the submission of the request and the convening of a special session of the EC to consider the request through to the preparation of a final report.

These PCIs are seen as valuable experience for the EC, the TS and states parties in preparing for the possibility of a real challenge inspection. The TS has also put into place the necessary internal procedures so that it can react both rapidly and effectively when a request for such an inspection is made, including having members of the inspection team, approved equipment and logistical support in a state of readiness.

Nor had any investigations of alleged use (IAUs) been requested or conducted up to October 2002. There have been a number of exercises on IAU and delivery of assistance, conducted by the OPCW and states parties. These have highlighted the importance of human factors, such as interviewing techniques and the collection of evidence, and the need for appropriate equipment. As in the case of challenge inspections, the TS has put in place the necessary internal procedures to allow it to dispatch an inspection team at short notice.

Unresolved verification issues

By October 2002, most of the issues which could not be fully resolved in the PrepCom, or which had arisen during the early implementation phase of the CWC, had been agreed or had been overtaken by events.[46] The following outstanding issues are currently being considered in the 'industry issues cluster':

- low concentration limits for Schedule 2A and 2A* chemicals;
- the development of common standards for states parties' compilation of their aggregate national data (AND) related to transfers of Schedule 2 and 3 chemicals;
- captive use; boundaries of production (that is, those parts of the plant site to which the inspectors would be given full access);
- transfers of Schedule 3 chemicals to non-states parties; and
- the development of proposals by states parties for the selection of OCPF sites for inspection.[47]

A decision on AND was approved at the Seventh CSP.

Future challenges

Size and budget of the OPCW

Clearly, the budget planning process has caused considerable difficulties in the first five years of the OPCW's life. A major obstacle in developing the annual budgets has been the lack of agreement on the size of the OPCW, with some states parties (primarily some of the major financial contributors) arguing that it should only have very limited (if any) growth, and the TS arguing that for the OPCW to fulfil its mandate there will need to be a substantial increase in its size, requiring an increase in its budget.[48]

The 'zero growth' budget approach will need to be reassessed. For the OPCW to remain credible, there should be at least a sufficient increase in the budget to enable the TS inspectorate to be fully utilised and a reasonable number of industry inspections to be conducted. In his respect, the agreed budget for 2003 is a promising sign.

With a limited budget, there will also be a need to balance competing priorities. This prioritisation task will require careful consideration, a high level of commitment to the basic objectives of the CWC, and a level of maturity not yet demonstrated consistently by some states parties. This will be the major challenge of the forthcoming Revcon and beyond. Another budget issue that will need to be addressed as a priority is the income–cash flow problem caused by the slow rate of payment by the possessor states of invoices for CW-related inspections carried out under Articles IV and V.

CWC timelines

A continuing challenge facing the OPCW is the adherence of all states parties to the various CWC timelines. In particular, there are increasing concerns about national implementation requirements not being met, particularly five years after entry into force.

There are continuing concerns about CW possessor states parties meeting their CW destruction timelines. However, it is important to keep this issue in perspective. The 10-year time-frame for destruction of all CW was agreed in the late 1980s at a time when the US and the former Soviet Union were both confident that they could destroy all their CW within 10 years.[49] From a pragmatic point of view, in the light of the concerns about chemical terrorism, a major issue is that all CW stockpiles are securely stored while they await destruction.

Verification of CW destruction

As discussed above, the majority of inspections conducted so far by the OPCW inspectorate have been associated with verification of the destruction of CW. There are two major reasons for this situation. The first is that the US and Russia never concluded their bilateral destruction agreement, which would have seen the bulk of the verification of destruction of their respective CW stockpiles being conducted by bilateral inspection teams, with OPCW inspectors only providing complementary verification.[50] The second is the interpretation of the CWC text adopted by the PrepCom, which requires the continuous presence of OPCW inspectors during the operation of chemical weapon destruction facilities (CWDFs).[51]

It has recently been estimated that there will be a substantial increase in the inspection workload for CWDFs in 2003 as four additional CWDFs are scheduled to commence destruction operations.[52] There are concerns that there will not be enough resources in the OPCW Inspectorate to provide the level of verification of destruction required. The TS is working closely with the possessor states to develop more cost-effective approaches, including the possibility of using the improved remote verification technologies now available. Unless cost-effective approaches are developed, there are concerns that most of the resources of the inspectorate will be required for verifying CW destruction as the new CWDFs begin operations, which would result in minimal resources being available for verifying non-production by industrial facilities.

Verification of chemical industry

It will be necessary to review and adjust, as appropriate, the proportions of inspection effort under Article VI allocated to Schedule 1, Schedule 2, Schedule 3 and DOC facilities. It became apparent during the negotiation of the CWC that, because of uncertainty about the number of facilities that would be declared under schedules 1, 2, and 3 and as DOC facilities, as well as the relative risks they present to the object and purpose of the CWC, it would be impractical to try to develop rigid solutions in the convention text. The nature of the practical verification problems involved would only become apparent in the course of implementation of the CWC. Accordingly, the Article VI regime was designed to be flexible and open to future adjustment in the light of practical experience gained.[53]

During the first few years after entry into force, there was an obvious focus on the initial inspections of Schedule 1 and 2 facilities, to meet specific convention timelines. However, following completion of the initial inspections, a higher proportion of the available resources have been provided for Schedule 3 and DOC inspections. There will be a need to regularly assess the relative risks posed to the convention of various types of facilities in order to take into account all relevant facilities, including Schedule 3 and DOC facilities.

Export monitoring and transfer obligations

There has been a tendency on the part of a number of states parties in the early operational phase of the CWC to focus exclusively on specific CWC obligations. However, there is also a requirement to adhere to the general obligations of the CWC, such as those in Article 1. For example, considerable attention has been directed to transfers of Schedule 1 chemicals (even in nanogram quantities, which are insufficient to incapacitate one person), with little, if any, consideration of transfers of 'non-scheduled' CW precursors which were acquired and used by CW proliferators in the 1980s.

It will be important as experience develops for states parties to develop a broader perspective on what constitutes 'CWC-relevant chemicals', which clearly goes beyond the chemicals listed in the three schedules.[54]

Also important in this regard is implementation of the general purpose definition of CW, in recognition that other toxic chemicals (not just those listed in the CWC schedules) could be used in a state proliferation programme or by a terrorist group.[55]

The 2003 Review Conference

The EC recommended that the first CWC Revcon should begin on 28 April 2003[56] and run for two weeks, and this was agreed by the Seventh CSP in October 2002. In late September 2001, the EC established an open-ended working group to begin preparations for the Revcon. By October 2002, the group had met several times and discussed the objectives and methodology of the Revcon. Rather than the traditional article-by-article review, the Revcon will review the CWC on the following themes: implementation of the convention (including universality, changes to the security environment and terrorism); destruction of CW and former CW production facilities; nonproliferation measures; verification; assistance; and international co-operation.

A key issue is the future operation of the OPCW, and in particular how much the states parties want the OPCW to do and how much they are prepared to pay. There will clearly be a need to get the various balances right, and adjust the available resources accordingly, between the competing demands of: verification of destruction of CW and production facilities (Articles IV and V); industry verification (Article VI), including allocation of resources for inspections of Schedule 1, Schedule 2, Schedule 3 and OCPFs; and international co-operation and assistance, including support in developing national legislation (Article VII), assistance and protection (Article X), and economic and technological development (Article XI).

It will be necessary to review current verification procedures to ensure that the convention remains effective. For example, many verification-related decisions were adopted on an interim basis on the understanding that the issues would be further considered and refined as the OPCW gained experience. Careful review of verification procedures will be needed, based on the early experiences of the OPCW inspectorate, including issues related to access to records, the extent of access to chemical industry plant sites, and sampling and analysis. It would also be useful to review some of the technical decisions developed during the PrepCom, including the decision on very limited information to be declared for OCPFs,[57] the decision on 'blinded analytical instruments',[58] and the limitation of the OPCW analytical database to those chemicals listed in the CWC schedules and their degradation products.[59]

One of the difficult issues faced over the past five years has been finding an acceptable balance between the need for transparency in the operations of the OPCW

and the need to protect sensitive information. With five years' experience, it will be necessary to review the balance between the protection of confidentiality and the benefits of transparency.

It will also be important to review developments in science and technology and changing industry practices that may have an impact on the CWC. For example, recent developments in chemistry have included novel methods of production of toxic chemicals (including through biologically mediated processes) and novel toxins. The past decade has also seen the development of new monitoring techniques, including miniaturised sensors and portable chemical analysis equipment. Further development of such items may reduce the current levels of 'inspector presence' deemed necessary at CW-related facilities and allow the development of rapid screening methodologies using portable analytical equipment to support verification. There will clearly be roles for the Scientific Advisory Board[60] and scientific advisers of states parties in ensuring that the CWC keeps abreast with, and makes maximum use of, scientific developments.

The CWC text was carefully drafted to allow flexible implementation in order to take into account such changes without the need for frequent amendments to the convention text. Critical to the success of the next phase in the life of the OPCW will be an effective review process, without the political games that have at times undermined the efforts of the PrepCom and early OPCW to have an effective organisation fulfilling the mandate provided by the convention.

Conclusion

In a report on the advent and performance of the OPCW written in early 2000, the present author wrote: 'Being a dynamic organisation, the OPCW will face new and sometimes unexpected challenges and will need to be evolutionary'.[61] Clearly, the OPCW has faced unexpected challenges in the past two years, particularly its financial problems, TS management issues, and the need to develop a response to chemical terrorism.

The problems experienced by the OPCW over the past couple of years, painful as they have been, should be regarded as the teething troubles of a young organisation. It is salutary to contrast the CWC at the five-year mark with the Nuclear Non-Proliferation Treaty (NPT) in its early days. Although the NPT was simpler

than the CWC, and the implementation processes correspondingly easier,[62] there were a number of teething troubles in its early years. These included: delays caused by international disputes unrelated to nuclear weapons;[63] the absence of key countries;[64] disagreements between the International Atomic Energy Agency (IAEA) and the European Atomic Energy Community (Euratom);[65] and delays in the preparation of safeguards agreements.[66] At the first NPT Review Conference in 1975 a number of concerns were expressed and a number of discouraging assessments made.[67] However, the NPT has become a major arms control success.[68]

It is important that the recent problems of the OPCW be seen in this perspective. Despite the problems, the OPCW is performing remarkably well for a young international organisation. Even under the circumstances experienced in recent months, the TS has demonstrated that the CWC verification regime can function as intended, providing the necessary confidence that states parties are complying with their obligations under the CWC and providing an effective deterrent to states which may be considering violating the treaty. There are also positive signals that the OPCW is already moving beyond the difficulties it faced earlier in the year. Notable signals include the increased budget for 2003, approved at the Seventh CSP, which should enable the OPCW inspectorate to be fully and effectively employed in 2003, and the development of credible responses to chemical terrorism. In addition, thorough preparations are being made for the first Review Conference, which should facilitate a detailed review of all aspects of the operation of the CWC in the light of the changing international climate, the early experience of the OPCW, and scientific and technological developments.

The OPCW still faces serious challenges. The next few years will be critical to the long-term prospects. Challenges include:

- universality;
- full adherence by all states parties to the CWC declaration and legislative requirements;
- the need to balance competing priorities within the limited OPCW budget;
- making optimal use of new monitoring techniques in order to make verification of CW destruction less resource-intensive;
- maintaining a credible number of industry inspections with a broad geographical distribution;

- a better appreciation of export licensing issues;
- further development of the OPCW response to chemical terrorism; and
- greater transparency in the operations of the OPCW.

There are good reasons for optimism that the OPCW will rise to meet these challenges.

Finally, the potentially positive impact of the CWC on other arms control issues should be recognised. In the current international climate, a number of significant states are reluctant to accept compliance monitoring measures for other arms control treaties (such as a protocol to strengthen the BWC, which is currently stalled). A successful OPCW will provide a strong argument for effective verification measures being included in other arms control regimes.

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Endnotes

[1] Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, opened for signature 13 January 1993; entered into force 29 April 1997.

[2] At the time, this committee was called the Eighteen Nation Disarmament Committee. It became known as the Conference of the Committee on Disarmament in 1969, and then the Committee on Disarmament in 1979. This was renamed as the Conference on Disarmament in 1984.

[3] Martine Letts *et al.,* 'The conclusion of the Chemical Weapons Convention: an Australian perspective', *Arms Control,* vol. 14, 1993, pp. 311–332.

[4] Robert J. Mathews, 'Preparing for implementation of the Chemical Weapons Convention: progress during 1996', in *Verification 1997*, Verification Technology Information Centre, London 1997, pp. 81–105; and Robert J. Mathews, 'Entry into force of the Chemical Weapons Convention', in *SIPRI Yearbook 1998: Armaments, Disarmament and International Security,* Oxford University Press, Oxford, 1998, pp. 490–500.

[5] Robert J. Mathews, 'Chemical disarmament: advent and performance of the OPCW', in Trevor Findlay (ed.), *Verification Yearbook 2000,* The Verification Research, Training and Information Centre (VERTIC), London, 2000, pp. 71–86.

[6] The first four CSPs experienced considerable difficulties in decision making and a considerable amount of extra time was required to negotiate various issues which could not be agreed before the CSP. Of the issues facing the second, third and fourth CSPs, the budget issue was the most protracted. See Mathews, 'Chemical disarmament: advent and performance of the OPCW', 2000.

[7] In late 1999, in an attempt to improve communication between the organs of the OPCW, an informal bureau was established which included the chairs of the EC and the Committee of the Whole, and the DG. This bureau met on a regular basis to review issues currently under consideration and plan future work.

[8] For example, at the Fourth CSP in May 1999, Germany (speaking on behalf of the European Union) expressed concern that the 'failure by a state party with a major chemical industry to provide declarations has led in 1998 to 64 percent of Schedule 2 inspections and 54 percent of Schedule 3 inspections being carried out in member states of the European Union'.

For the purposes of routine verification, the CWC specifies three schedules of chemicals. Schedule 1 chemicals are those which pose a high risk to the purposes of the convention, and include nerve and blister CW agents; Schedule 2 chemicals are those which pose a significant risk and include key precursor chemicals to nerve and blister agents; and Schedule 3 chemicals are those which pose a risk, and include toxic chemicals and precursor chemicals which are widely used in industry. There is also a fourth category, discrete organic chemicals (DOCs). Facilities that produce 'scheduled' and DOC chemicals above specified thresholds are required to make declarations and are subject to routine inspections.

[9] The DG's original contract was to expire on 13 May 2001, a day or so before the likely date of the Sixth CSP (14 May 2001). In the lead-up to the Fifth CSP, it was the general view that the position of the DG would be considered in the latter part of 2000 and a decision taken at the Sixth CSP. However, to the surprise of many states parties, on the Friday before the start of the Fifth CSP, Brazil circulated a draft decision for the Fifth CSP on the renewal of Bustani's appointment. This proposal appeared to gain early support from a considerable number of states parties, including those in the Latin American and Caribbean Group, the US and Russia. However, many states parties were clearly not prepared for consideration of the issue at the Fifth CSP and had to hurriedly seek instructions from their national capitals after the start of the meeting.

[10] One state party (Canada) requested that its concerns on the issue be released as a National Statement. See Canada, Statement on the Renewal of the Appointment of the Director-General, EC-MX/NAT.2, 16 May 2000.

[11] 'Full programme delivery' in 2002 (i.e., accomplishment of all planned activities by the TS) would have required a budget of €64.1 million. On the budget problems see also 'Getting verification right: proposals for enhancing implementation of the Chemical Weapons Convention', The Verification Research, Training and Information Centre (VERTIC), London, 2002, available at www.vertic.org.

[12] Of particular note was a contribution of US$2 million by the US in September 2002. A number of states parties have also provided voluntary contributions to support the fund for assistance (Article X) and the associate programme (Article XI), and hosted training courses, regional workshops and seminars.

[13] The actual cost increase for staff costs over two years was about 9.6 percent (€2.1 million) whereas the budgeted increase for staff costs was only 3.5 percent.

[14] Budgeting was based on overoptimistic assumptions about the amount of time for which CWDFs would be operating during the following calendar year.

[15] Although there was agreement at the Fourth CSP that the maximum tenure of TS staff should be seven years (based on agreement among states parties that the OPCW should not offer 'career positions'), the Conference was unable to agree on a starting date for the introduction of the policy and requested the Council to decide on this—which it has so far not done.

[16] This would comprise €64 million from assessed contributions (a 10 percent increase over the approved 2002 budget), with the remaining €5.9 million to be generated from reimbursements of the costs of verification under Articles IV and V.

[17] This budget is based on €64 million in regular assessed contributions (up 9.9 percent on the assessed contributions of 2002), an estimated €3.9 million to be reimbursed during 2003 from CW possessor states parties of Articles IV and V verification costs, and €0.6 million in bank interest.

[18] There have been delays in many verification-related decisions by the EC, and this has caused considerable delays to the verification activities of the TS, perhaps most notably the approval of facility agreements.

[19] A meeting of the EC was requested by the US in July 1999 specifically to discuss the roles and functions of the EC. The American delegation stressed the need for the EC to provide executive oversight to the TS without micromanaging its affairs and suggested that the organs of the OPCW review their roles, areas of authority, reporting responsibilities and consultative processes. However, this issue was not resolved to the satisfaction of all states parties.

[20] For example, at the Fourth CSP, the DG stated: 'The pioneering work of the OPCW cannot be held ransom to short-sighted acts of micromanagement and, on occasion, to individual idiosyncrasies'. C-IV/DG.12, 28 June 1999.

[21] States parties' loss of confidence in the DG was also related to the disappointment felt by a substantial number of states parties in the process by which the DG was reappointed during the Fifth CSP (see above).

[22] '[T]he vote broke largely along regional lines, with all but nine of the yes votes coming from WEOG and EE, and all but 4 of the abstentions coming from Africa, Asia or Latin America and the Caribbean. The seven states voting no were Belarus, Brazil, China, Cuba, Iran, Mexico and Russia. Notably, India was among the yes votes with France and South Africa among the abstentions.' Pamela Mills, 'Developments in the Organisation for the Prohibition of Chemical Weapons', Quarterly Review no. 38, *CBW Bulletin,* issue 56, June 2002, p. 8.

[23] There were states parties in each of the five regional groups which were satisfied with Bustani's performance, just as there were others within each regional group who felt that his tenure should be terminated. Other states parties were not necessarily convinced that Bustani was still the best person for the job but felt it would be less damaging for the OPCW to allow him to finish his term than to pursue the potentially divisive process of removing him mid-term.

[24] EC-29/DG.10, 25 June 2002.

[25] By October 2002, there were 147 states parties including: the US and Russia (the two largest possessors of CW); the major chemical-producing and -exporting states of Europe and Asia; and many of the major

developing states with chemical production capability. There were still 27 signatory states which had not ratified, and 20 states which had neither signed or ratified the convention. Of particular concern is that a number of countries of CW-proliferation concern have not signed the CWC, including Egypt, Iraq, Libya, Syria and North Korea. A significant number of developing countries have also yet to ratify the CWC.

[26] On the schedules, see note 8.

[27] This group will co-operate with the UN Security Council's Counter-Terrorism Committee, which was established on 28 September 2001 in accordance with UN Security Council Resolution 1373, 28 September 2001.

[28] Robert J. Mathews and Timothy L.H. McCormack, 'Entry into force of the Chemical Weapons Convention: national requirements and prospective timetable', *Security Dialogue,* vol. 26, no. 1, 1995, pp. 93–107.

[29] A number of states parties which already have national legislation are reviewing it to ensure that it fully reflects CWC obligations. For example, some states parties limited their original legislation to chemicals listed in the three schedules, without covering other toxic chemicals which could be used as CW.

[30] For example, a meeting of the network of legal experts for Latin America and the Caribbean, which was scheduled to be held in May 2002, has been postponed indefinitely.

[31] For example, only 36 percent of initial declarations were submitted within the specified timeline, and by the end of 1999, 26 percent of the states parties still had not submitted their initial declarations.

[32] The submission of the US chemical industry declarations was a particular relief. Concerns had been expressed both in the EC meetings and during CSPs of the serious implications of this 'technical non-compliance' for the successful implementation of the convention, including the application of Article VI (chemical industry) verification in a fair and balanced manner. As reported earlier, certain states parties had attempted to limit the number of re-inspections of Schedule 2 facilities until all states parties had submitted their industry declarations and received their initial inspections. Mathews, 'Chemical disarmament: advent and performance of the OPCW', 2000.

[33] In addition, many states parties have failed to notify points of entry for inspection teams and failed to give notification of their national authorities, which complicates inspection planning by the TS.

[34] This has included the establishment of an OPCW Declaration Network of experts from states parties who are available to help other states parties in completing their declaration obligations.

[35] This number includes rotations of inspection teams at operating CW destruction facilities, where OPCW inspectors conduct systematic verification through on-site inspection on a continuous basis. A rotation is counted as a new inspection.

[36] For example, as of October 2002, there had been eight recorded uncertainties involving lack of access to parts of a Schedule 2 plant site to verify the absence of Schedule 1 chemicals, and five uncertainties involving lack of access to records deemed necessary by the inspection team to confirm non-diversion of the declared Schedule 2 chemical. In two states parties, access beyond the declared Schedule 2 plant was not granted because of differences in the interpretation of para. 25 of Part VII and its references to para. 51 of Part II of the CWC Verification Annex. However, all these matters were subsequently resolved.

[37] For a detailed account and analysis of the conduct of industry inspections, see John Hart, 'Chemical industry on-site inspections', VERTIC Research Report no. 1, The Verification Research, Training and Information Centre (VERTIC), London, October 2001.

[38] The original selection methodology, based on a proposal by Australia and the Republic of Korea, is currently being further developed and refined. See Australia and Republic of Korea, 'Methodology for selecting Schedule 3 and discrete organic chemical (DOC) plant sites for inspection', OPCW EC.XVI/NAT.5, 16 September 1999.

[39] For example, Iraq used a number of Schedule 3- and DOC-type facilities in its CW production programme in the 1980s. See John Gee, 'The destruction, removal or rendering harmless of Iraq's chemical warfare capability', *Disarmament,* vol. 15, no. 2, 1992, pp. 77–93.

[40] The distribution agreed for 2002 was 18 Schedule 1, 40 Schedule 2, 42 Schedule 3 and 32 DOC inspections.
[41] 'Getting verification right: proposals for enhancing implementation of the Chemical Weapons Convention', 2002.
[42] Under the CWC, each state party possessing CW is required to destroy them within 10 years (with a possible five-year extension) of entry into force.
[43] In accordance with the CWC Verification Annex Part IV(A), para. 17, states parties are required to destroy not less than 1 percent of their Category 1 stockpile (which includes CW based on nerve and blister agents) not later than three years after entry into force (i.e., by 29 April 2000).
[44] 'News chronology', *CBW Conventions Bulletin,* 28 June 1999.
[45] The US has expressed concerns that some states parties are not in full compliance with the CWC but so far has chosen to seek clarification through bilateral consultations, rather than request a challenge inspection.
[46] For example, the lack of agreement on the model facility agreements by the PrepCom resulted in delays in concluding some facility agreements but was not the major problem that some predicted in implementing the CWC, as many states parties which possess facilities which require a facility agreement used the most recent 'red-lined' version of the Model Facility Agreement as the basis for their negotiations with the OPCW.
[47] The issues of captive use and boundaries of production were actually agreed during the end-game of the CWC in 1992, but unfortunately were reopened during the PrepCom.
[48] There have been other contributing factors to the financial problems, including the lack of flexibility in the approved annual budget approach and the difficulty in planning a budget for the following calendar year in the month of May. The latter problem should be overcome this year with the Seventh CSP.
[49] For example, at the time, the former Soviet Union had just completed the construction of a CW destruction facility at Chapayevsk. However, the facility was never approved for operation, partly because of environmental and safety concerns raised by local residents.
[50] In accordance with Article IV, para. 13.
[51] This 'convention requirement' is based on a particular interpretation of the words 'verification through continuous monitoring with on-site instruments and physical presence of inspectors', which appear in the CWC Verification Annex, Part IV(A), para. 59(b) (with respect to destruction of CW), Part V, para. 40 (with respect to destruction of former CW production facilities), and Part V, para. 83 (with respect to conversion of former CW production facilities). When the text was negotiated, it was the author's understanding that the word 'continuous' referred to 'monitoring with on-site instruments' and that there was no convention requirement for inspectors to be continuously present. During the PrepCom, the more stringent interpretation was adopted.
[52] John Gee, 'The CWC and the task of eliminating chemical weapons: the first five years', Opening Address to the International Chemical Demilitarisation Conference, The Hague, 21–23 May 2002, available at www.opcw.org/html/global/speeches/dera_2k2.html.
[53] Robert J. Mathews, 'Intention of Article VI: an Australian drafter's perspective', *OPCW Synthesis*, November 2000.
[54] This issue has long been recognised. For example, in a 1996 PrepCom Working Paper, Iran recognised the relevance of a number of non-scheduled chemicals for export licensing purposes. Islamic Republic of Iran, 'Implementation of Article XI in the field of chemical trade', PC-XV/B/WP.6, 5 November 1996.
[55] Indeed, a more pragmatic view has been taken by many states parties as a consequence of the greater recognition of the potential terrorist threat from toxic chemicals not on the CWC schedules.
[56] In accordance with the CWC, Article VIII, para. 22.
[57] In some cases, states parties are providing less information than is available in companies' brochures and on their websites.
[58] Blinded analytical equipment uses special 'blinded software' and a restricted database to provide only 'presence/absence' information on CWC-related chemicals.

[59] The lack of analytical data for the majority of members of the various families of scheduled chemicals is regarded as a serious gap, which should be addressed as a priority. In the interest of effective verification, it is also hoped that spectra of other relevant chemicals will be promptly added to the OPCW analytical database.

[60] The Scientific Advisory Board (SAB) is tasked with providing independent scientific advice to the DG on a number of scientific and technical issues. It has met several times already and considered a range of issues, including destruction technologies, ricin production, saxitoxin, salts of scheduled chemicals, low concentrations of scheduled chemicals and analytical procedures. See Claude Eon, 'The Scientific Board of the OPCW: an overview', Paper presented at the International Union of Pure and Applied Chemistry Workshop on Impact of Scientific Developments, Bergen, Norway, 30 June–3 July 2002.

[61] Mathews, 'Chemical disarmament: advent and performance of the OPCW', 2000, p. 81.

[62] For example, the NPT did not require the establishment of a new international organisation and had considerably less detailed national implementing measures for prospective states parties than the CWC; moreover, many of those requirements were not required to be in place before entry into force of the NPT. See Robert J. Mathews and Timothy L.H. McCormack, 'Entry into force of the Chemical Weapons Convention: national requirements and prospective timetable', *Security Dialogue,* vol. 26, no. 1, 1995, pp. 93–107.

[63] For example, ratification by the US was delayed by several months as a result of the Soviet invasion of Czechoslovakia in August 1968. See *SIPRI Yearbook 1968/69,* Almqvist & Wiksell, Stockholm, p. 165.

[64] As of 31 December 1975, only about two-thirds of states had ratified or acceded to the NPT. At that time, the non-states parties included two nuclear weapon states (China and France) and several non-nuclear weapon states which were deemed to have the technical capability to produce nuclear weapons. See *SIPRI Yearbook 1976,* Almqvist & Wiksell, Stockholm, and MIT Press, Cambridge, Mass. and London, 1976, pp. 388–392.

[65] For example, there was a delay in new ratifications and accessions to the NPT while some countries (the non-nuclear weapon states in Euratom, Belgium, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands) waited for safeguards negotiations between the IAEA and Euratom to be concluded.

[66] By the end of 1973, only 29 states parties had concluded safeguards agreements with the IAEA, as required by the NPT, that is, 36 percent of those under obligation to do so; 15 additional states had signed agreements but were not yet bound by them as notification requirements had not yet been met; and four more agreements had been approved by the IAEA Board of Governors but had not been signed. See *SIPRI Yearbook 1974,* Almqvist & Wiksell, Stockholm, and MIT Press, Cambridge, Mass. and London, 1974, p. 441.

[67] For example, 'It is hard to see how the NPT can now contribute towards the establishment of an effective non-proliferation regime'; and 'The [review] conference succeeded in not breaking down. But it failed in solving the problems essential for the survival of the NPT'. *SIPRI Yearbook 1976,* pp. 11, 391.

[68] For example, in the early 1990s Australia's Foreign Minister described the NPT as 'the single most effective and widely supported arms control agreement in existence: without it we would by now be facing a world with perhaps twenty or thirty nuclear weapons states'. See Gareth Evans and Bruce Grant, *Australia's Foreign Relations in the World of the 1990s*, 2nd edn, Melbourne University Press, Melbourne, 1995, p. 84.