

Mending the OPCW: getting verification right

The Organisation for the Prohibition of Chemical Weapons (OPCW), which verifies compliance with the 1993 Chemical Weapons Convention (CWC), was in turmoil in the last week of April. At a Special Conference of States Parties, Director-General José Bustani of Brazil was finally ousted from office after an increasingly shrill campaign by the US. Washington accused him of poor management, particularly of OPCW finances, and 'ill-considered initiatives', seen as distracting the organisation from its primary verification role. The vote against Bustani was surprisingly large: 48 to 7, with 43 abstentions. Along with the majority of Western states that voted to remove him were India and Nigeria, key developing countries. The number of developing states that abstained from the poll was also significant. Bustani had clearly lost the confidence of most member countries and there seemed to be a collective sigh of relief when he departed.

The Americans succeeded in using their influence to resolve a situation that many nations had complained about but few had the resolve or the inclination to do anything about. Nonetheless, the way in which the administration of President George W. Bush handled the issue was unnecessarily divisive and heavy-handed and has damaged the OPCW. The US case was initially poorly mounted and documented and indiscriminately mixed political and managerial concerns. It was leaked piecemeal to the press, backed by threats that legally-binding US dues would not be paid unless Washington got its way. These threats were capped off with suggestions that the US would abandon the OPCW if Bustani's replacement was no better than him. Coming on the heels of the Bush administration's rampant unilateralism in other areas of multilateral endeavour—including, in the same week, a successful attempt to remove the head of the Intergovernmental Panel on Climate Change, Robert Watson—the Bustani affair seemed to many observers to be more a case of superpower bullying than a genuine attempt to fix an institution in trouble.

What next for the OPCW?

The key question now is how to get the OPCW back on its former upward trajectory. The organisation, which has only been operating since 1997—after four years of preparatory work—is a unique multilateral verification body that is contributing demonstrably to international security—even more so after the events of 11 September. The OPCW has major achievements to its credit, but it must now be given the necessary political support and resources to allow it to fulfil its early promise.

A resumed session of the Special Conference planned for 10 June 2002 is expected to elect a new Director-General—in the meantime, the OPCW will be run by Deputy Director John Gee

Inside this issue . . .

Trevor Findlay assesses the turmoil surrounding the Organisation for the Prohibition of Chemical Weapons, while Vanessa Chagas examines the Agenda 21 monitoring mechanism. In addition, all of the usual features: Peace Missions Monitor, Verification Watch, Science and Technology Scan, Verification Quotes and VERTIC News and Events.

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of Australia. The Latin Americans are hoping to propose a candidate from their region to see out Bustani's term. As well as being capable of gaining majority support from all regional groupings, the new Director-General will need the political acumen to deal with American and other Western complaints, while at the same time avoiding alienating developing states. For their part, states parties will need to demonstrate support for the new Director-General in practical ways, such as by prompt or even advance payment of their dues.

Above all, the new head will require strong management skills and a more open and inclusive management style. He or she might do well to start with a searching review of the management practices and culture of the OPCW. Budgetary forecasting has been poor and human resource issues have been mishandled. Too often in the past some parts of the organisation have appeared to mistake diplomatic ceremony for real achievement. There has also been a tendency to misuse the CWC's quite proper concern with protecting confidential proprietary and defence information to render the activities of the OPCW itself opaque to the outside world.

An essential condition is the development of a better relationship between the organisation's Technical Secretariat, of which the Director-General is head, and the Executive Council of states parties, which is meant to provide strategic advice and direction. Naturally the members of the Council, in taking decisions, need to balance the interests and priorities of states parties that have different political and economic circumstances and are from different geographical regions. But the Council has failed to meet its responsibilities, postponing decisions on difficult subjects or issuing unclear guidance.

Some of the more strategic matters confronting the OPCW are, however, likely only to be dealt with by the membership as a whole. In this respect, at least, the leadership change is timely. The first CWC Review Conference is to be held in April 2003 and states parties are already giving consideration to what it might accomplish. The conference will be an opportunity for states parties, suitably chastened by what has occurred in the OPCW, to adopt far-reaching measures to strengthen implementation of the convention.

Solving a financial conundrum

In addition to the budgetary difficulties experienced by all international organisations—the late or non-payment of assessed dues by states parties—the OPCW faces a unique problem caused by the 'possessor pays' principle: states must reimburse the OPCW for the costs it incurs in monitoring the destruc-

tion of their chemical weapon (CW) stockpiles. OPCW budget estimates are calculated, inspection schedules drawn up and inspectors recruited on the basis of destruction plans submitted by possessor states. These are often inaccurate and wildly ambitious. The destruction of Russia's vast CW stockpile has not yet even begun. The OPCW is left with under-utilised, expensive staff and no reimbursement for the costs it has borne.

The Review Conference should consider radical steps to alleviate this fundamental obstacle, such as multi-year rather than annual budgets. It is absurd that an organisation involved in such a long-term and complex task as ensuring that the world is free of chemical weapons should be constrained by annual budgeting. Multi-year budgeting would allow a rollover of funding from one year to the next, rather than requiring, as at present, the reimbursement of annual surpluses to states parties. It might also help those states parties whose financial year does not coincide with that of the OPCW to avoid late payment of their dues.

Achievements of the CWC

- 70,000 tonnes of chemical weapons (CW) and 8.6 million munitions/containers declared by four states parties
- 61 former CW production sites declared by 11 states parties
- 6,700 tonnes of CW, two million munitions and containers and 27 CW production facilities destroyed under OPCW inspection
- 1,169 OPCW inspections conducted to verify state party compliance, including 336 of civilian chemical industry facilities

Source OPCW website, www.opcw.org, April 2002

Getting verification right

A major challenge is to decide on a proper balance in the verification regime between verifying the destruction of existing CW stockpiles in a small number of states (a relatively straightforward process), and verification of non-production of new chemical weapons, including by monitoring civilian chemical production facilities worldwide (a much more exacting task). At present, too much effort is devoted to verifying destruction (and monitoring the Western chemical industry) and too little to verifying non-production of chemical weapons in countries that might be tempted to produce them. States parties need to consider authorising the OPCW to develop a better strategic picture of compliance through the use of open source infor-

Israel/Palestine: incarceration verification begins . . .

As part of a 3 May deal to end the Israeli siege of Ramallah and the virtual house arrest of the President of the Palestinian Authority, Yasser Arafat, a joint US–UK monitoring mission has begun a 24-hour watch to verify that the Authority continues to hold six Palestinian militants. The Palestinians were convicted of involvement in the assassination of Israeli Tourism Minister Rehavam Zeevi in 2001.

. . . but Jenin fact-finding mission aborted

Meanwhile, a proposed UN fact-finding mission to investigate whether the Israelis carried out a massacre during their siege of Jenin in April 2002 was cancelled by UN Secretary-General Kofi Annan after Israel, which initially welcomed the idea, attempted to impose conditions on its membership and terms of reference. The team was to be led by former Finnish President Martti Ahtisaari, who has been involved in verifying the decommissioning of the Irish Republican Army's weapons. Israel demanded that military and counter-terrorism experts be included in the group. A prospective team member, US army Major-General William Nash (ret.) claims that, despite Ahtisaari's balanced and helpful attempts to meet Israeli concerns, it became clear that Israel was intent on aborting the mission.

Source William L. Nash, 'The thwarted UN mission', *International Herald Tribune*, 9 May 2002, p. 5; Stephen Farrell and James Bone, 'Israel resists UN's proposed Jenin inspection team', *The Times*, 25 April 2002, p. 17; Serge Schmemmann, 'Israel sharply attacks UN envoy', *International Herald Tribune*, 24 April, 2002, p. 3.

mation. Even its existing verification tools are under-utilised: sampling, for instance, is almost never carried out. There will be funding, staffing and other resource implications, depending on the verification choices made.

The biological/chemical weapons nexus

The conference also needs to consider the relationship between the CWC and the 1972 Biological and Toxin Weapons Convention (BWC), now that negotiations on a verification protocol for the latter have been razed by the US. It had been widely assumed that an Organisation for the Prohibition of Biological Weapons (OPBW) would join the OPCW in The Hague, Netherlands, and that the main test would be to co-ordinate and synergise their activities. Now the challenge is to see how the OPCW might help to ensure that dangerous substances with weapons potential, such as toxins, do not fall between the cracks of the two conventions.

Changes in science and technology

The conference will also need to consider how changes in science and technology, including the way in which the increasingly integrated global chemical industry now operates, might affect the convention. The treaty's Scientific Advisory Board should play a bigger role in this respect.

Management of the OPCW

The Review Conference should undertake a critical evaluation of the structure and management of the OPCW with a view to increasing its effectiveness, efficiency and transparency. The

conference should also seek to improve the efficaciousness of the organisation's working groups. Finally, it should clarify the procedures that, in the event of any future dissatisfaction with the performance of the Director-General or other member of the senior staff, should be followed.

States parties should, of course, examine their own record in failing to support the organisation politically and financially, in pursuing national agendas at the expense of collective ones and in letting the management difficulties become as divisive and disruptive as they did. In particular, the US, in the face of mounting scepticism, will need to convince the rest of the membership of its true intentions towards the OPCW and the treaty by restoring its political and financial support and by curbing the excesses of its representatives. US payment of its financial dues for 2002, following the departure of José Bustani, is a welcome step in this direction. If the Americans have genuine doubts about non-compliance by fellow treaty parties, such as Iran, they should address them through the available treaty mechanisms.

The OPCW is too valuable an organisation to be allowed to atrophy as a result of poor management, financial constraints and political neglect. It is needed to help rid the world of chemical weapons. And, as the implementing agency for the most intrusive and ambitious multilateral disarmament agreement to date, it is needed as a model for what might be achieved in future, when the current political barriers to progress in biological and nuclear disarmament wither away.

Trevor Findlay, Executive Director, VERTIC

Monitoring sustainable development

In June 1992, 172 governments committed themselves to an ambitious plan of global action—entitled Agenda 21—to reduce poverty and to improve the environment through sustainable development. Today, the politically binding principles that were agreed at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil, are almost universally recognised. One hundred and eighty-eight states have now signed Agenda 21, which obliges governments to tackle a wide variety of issues, ranging from concerns about biodiversity and sustainable tourism to energy efficiency and water resources.

From 26 August until 4 September 2002, representatives of the Agenda 21 parties and other stakeholders will gather in Johannesburg, South Africa, for the World Summit on Sustainable Development (WSSD). One of the summit's main objectives will be to review implementation of the Agenda 21 provisions, a process that is key to setting future targets. This task is complicated, however, by the broad scope of Agenda 21 and its lack of quantitative targets. Monitoring of Agenda 21 is less rigorous than for more binding agreements and is based only on a loose system of self-monitoring and reporting. The Johannesburg summit, therefore, not only faces the challenge of assessing the performance of states parties, but it will also need to agree on measures to improve the Agenda 21 monitoring mechanism.

Monitoring implementation of Agenda 21

The Commission on Sustainable Development (CSD), which was established in December 1992, meets annually to review implementation of UNCED commitments. Its 53 members report to, and are elected by, the Economic and Social Council (ECOSOC) of the United Nations (UN). National Reports, submitted by Agenda 21 states parties to the CSD, are the most important monitoring tool. They are based on standardised guidelines that were developed by the CSD in 1993. Since 1994, the CSD has reviewed government efforts to implement the recommendations contained in Agenda 21 at its annual substantive session. National Reports and CSD documents that analyse global trends and assess implementation are available on the UN's sustainable development website. The verification value of this information, though, is severely limited by the fact that National Reports are merely updated, not archived.

Country Profiles are a second tool for monitoring Agenda 21 implementation. They are compiled by the National Informa-

tion Analysis Unit (NIAU) of the UN Secretariat's Division for Sustainable Development and are based on National Reports. Country Profiles are structured along the lines of the 40 chapters of Agenda 21. Their purpose is not, strictly speaking, verification. Rather, the intention is to help countries monitor their own progress, share experiences and data with other states, and be an institutional memory of national action to implement Agenda 21. The NIAU sends Country Profiles to governments for amendment before they are finally submitted to the CSD. The first Country Profiles were prepared in 1997 for the Rio+5 Summit and a new set is being prepared for the WSSD.

National Assessment Reports represent the third monitoring tool. Parties have been asked to complete them for the first time as part of the WSSD preparation process. They are self-appraisal summaries of a country's efforts to implement Agenda 21 since UNCED. Details about the format and content of the National Assessment Reports are scarce and currently not available in the public domain.

Reporting deficiencies

There are a number of problems with the present reporting system. First, there is a lack of political guidance. At the Rio summit, verification played a minor role, reflecting the reluctance of parties to commit to a rigorous, well-specified mechanism. The only reference to national reporting is in chapter 38 of Agenda 21, which invites states to file National Reports, but does not denote the format, timing and frequency of such submissions. Although some progress has been made towards establishing a stricter, standardised reporting system, unclear guidance remains a problem. This has been obvious in the case of National Assessment Reports. When questioned by VERTIC about the compilation process, for instance, the NIAU was unable to identify the UN body responsible for receiving the documents, and could not elaborate on the reporting guidelines that states have to follow.

Second, there are inherent structural problems. The national information submitted to the CSD is not analogous, making it difficult to draw global conclusions about implementation of Agenda 21. Agenda 21 sets few quantifiable targets. As a result, countries' reports contain few hard facts. Instead, states tend to submit descriptions of various policies they have adopted to implement Agenda 21. Also, countries are not required to declare a 'baseline' against which to judge their performance.

The CSD, therefore, does not have access to the quality information it needs to identify the nations that are not fulfilling their Agenda 21 obligations.

Third, compliance with reporting requirements has been patchy. (A comprehensive, state-by-state précis of compliance with Agenda 21 reporting mechanisms can be found at www.vertic.org.) In summary, 125 parties submitted National Reports between 1994 and 2001, but only ten filed a report every year. In 1997, 105 countries presented Country Profiles for consideration at the Rio+5 Summit. In most cases, however, this information is only as good as that contained in the preceding National Reports. This year, only 22 of 188 states met the Country Profile deadline set for the WSSD, making it unlikely that this data will be ready in time for the final WSSD Preparatory Committee in Bali, Indonesia, on 27 May–7 June 2002. Some developing countries do not possess the institutional, human and technical resources to satisfy their reporting requirements. The growing number of international agreements in the field of sustainable development that require reporting aggravates this situation. Consequently, National Reports, if submitted, are often late, badly prepared and inconsistent.

Verification or implementation assistance?

Even though the verification value of National Reporting under Agenda 21 may be limited, improving the system still makes sense. This, at least, was the outcome of discussions—at an ECOSOC-organised meeting in New York on 12–13 February 2002—among 52 Agenda 21 parties on their experiences in preparing National Reports. Parties concluded that the reporting process had strengthened co-ordination and dialogue internally (between government agencies), as well as internationally between governments and major organisations. Participating in the reporting mechanism also compels parties to engage in strategic planning on sustainable development issues.

These unintended side-benefits of a reporting system that was primarily intended to increase confidence in universal compliance with Agenda 21 principles provide additional reasons to fortify reporting mechanisms further at the WSSD. However, these verification spin-offs should not detract the summit from the original function of the CSD.

Verification at Johannesburg

The WSSD preparatory process has been under way since April 2001. It aims to produce a final document that will set out a programme of action to promote sustainable development. A separate document will outline institutional steps to support

Verification resources

CIVICUS is an international civil society movement, with members in over 100 countries, which works with members and a rapidly growing network of partners at the national and global levels, to ensure that civil society organisations enjoy the rights to organise, speak freely and promote the common good. CIVICUS facilitates activities to nurture the founding, growth, protection and resourcing of citizen action worldwide and especially where participatory democracy, freedom of association and expression, and other enabling conditions for civil society are threatened. It has offices in Washington, DC, London and Johannesburg.

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this action plan. At the WSSD, states need to emphasise the need for effective monitoring to improve the quality and comprehensiveness of data on state compliance with the goals of Agenda 21. In this context, the summit participants should:

- emphasise the importance of effective verification as the basis for sound implementation of the Rio commitments;
- pledge to submit quality information at regular intervals;
- strengthen the CSD mandate, enabling CSD to correct flaws in the current reporting mechanisms;
- simplify reporting guidelines and standardise formats;
- improve transparency by increasing non-governmental organisations' access to the reporting process;
- agree on realistic reporting commitments to help countries meet their reporting obligations; and
- discuss the possibility of limiting reporting, for practical purposes, to policy issues. Verification of target-oriented objectives should be undertaken under binding regimes, such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity. While this could reduce comprehensiveness of Agenda 21 monitoring, it would encourage more regular submissions.

Generally, such measures should help to give the CSD a stronger role in improving compliance. Effective monitoring remains a precondition for turning the principles of Agenda 21 into political reality.

Vanessa Chagas, VERTIC intern



Poor show for biodiversity reporting

The sixth Conference of the Parties (COP6) to the 1992 Convention on Biodiversity took place from 7–19 April in The Hague. The conference adopted:

- detailed guidelines on access to genetic resources and benefit sharing;
- a revised international work programme on forests;
- 15 principles for minimising the spread and impact of alien, invasive species; and
- a strategic, global action plan for protecting biological diversity over the next decade.

National reporting was a key topic at COP6. Delegates expressed their disappointment at the low level of compliance with the second round of national reporting. Although the deadline was 15 March 2001, only 49 of the 183 states had submitted their second National Reports by the end of June. The conference asked the Executive Secretary to study the reasons for poor compliance prior to the preparation of the third National Reports—due in 2005—and recommended that financial and technical support be offered to those countries experiencing difficulties. The Executive Secretary was also invited to develop draft guidelines for preparing the third National Reports. In the meantime, parties were asked to submit their outstanding, thematic reports—on mountain ecosystems, protected areas, technology transfer and technology co-operation—in accordance with the draft format contained in the annex to the final document.

Source 'Biodiversity: Hague conference tackles alien species and other threats', *UN Wire*, 22 April 2002, www.unwire.org; 'Sixth meeting to the conference of the parties to the Convention on Biological Diversity', *Earth Negotiations Bulletin*, 22 April 2002, www.iisd.ca; 'Quarterly report on the administration of the Convention on Biological Diversity', *UNEP/CBD/QR/13*, April–June 2001, www.biodiv.org.

US renounces ICC signature

In yet another demonstration of contempt for multilateralism, the Bush administration renounced, on 7 May, its signature of the 1998 Rome Treaty, which established an International Criminal Court (ICC). The action was prompted by the fact that the accord will enter into force on 1 July 2002, years before it was expected to. Entry into force has been accelerated by a flurry of ratifications—Bosnia, Bulgaria, Cambodia, Ireland, Mon-

golia, Romania and Slovakia—that pushed the number past the 60 threshold. A ceremony was held at the UN on 11 April at which ten states simultaneously deposited their instruments of ratification.

The ICC will constitute an additional mechanism for enforcing international law against genocide, crimes against humanity and war crimes. In future, this list may come to include individual attempts to violate international conventions banning the acquisition and use of weapons of mass destruction. The Court would obviate the need for individual ad hoc tribunals, such as those currently investigating war crimes in Rwanda, Sierra Leone and the former Yugoslavia.

Signature of a treaty commits a country not to engage in any practices that could thwart its aims and objectives; renunciation is almost unprecedented. Even more disturbing in this case was the accompanying announcement that the US would not assist the ICC. This presumably means that the US will not provide the Court with information that may help it to prosecute or convict war criminals. American concerns centre on the fear that US soldiers or even leaders might be brought before the ICC on spurious, politically motivated charges—the US Senate Appropriations Committee has even granted the president authorisation to use force to rescue them. Yet the Rome Treaty provides safeguards to prevent this type of situation, which have proved sufficient to induce all of the EU states (except Greece) to sign and ratify. The ICC will have jurisdiction over crimes committed by individuals, rather than states, but it can only hear cases concerning crimes committed after 1 July 2002 and only where the national courts of the individual's state fail to exercise authority. Cases may be referred to the Court by states parties to the Rome Statute, by the Security Council (acting under Chapter VII of the UN Charter), or following an investigation launched by the ICC Prosecutor.

Further procedural matters must be clarified before the ICC can become operational. A final meeting of the Preparatory Commission in July and the first gathering of the Assembly of States Parties in September are expected to determine procedures for electing the 18 judges and the Prosecutor. States parties need to agree on a definition of, and conditions for, ICC jurisdiction over crimes of aggression—provided for, in principle, in the Rome Statute—before the Court can hear such cases. Meanwhile, the host country, the Netherlands, has identified

temporary accommodation for the ICC prior to construction of the official buildings in The Hague being completed by 2007.

Source James Bone, 'us rejects all support for new court on atrocities', *New York Times*, 7 May 2002, www.nytimes.com; 'War crimes court pits United States against the world', *The Times*, 11 April 2002, p. 18; 'International Criminal Court established at landmark UN treaty event', *Press Release*, Coalition for the International Criminal Court, 11 April 2002; Rome Statute of the International Criminal Court, 17 July 1998, A/CONF.183/9; Statement by the Minister of Foreign Affairs of the Kingdom of the Netherlands, Jozias J. Van Aartsen, during the eighth session of the Preparatory Commission for the International Criminal Court, New York, 25 September 2001; Adam Clymer, 'House panel approves measures to oppose new global court', *New York Times*, 10 May 2002, www.nytimes.com.

UNMOVIC unmoved

Another round of talks took place in New York on 1–2 May 2002 between UN Secretary-General Kofi Annan and Iraqi Foreign Minister Naji Sabri. While no breakthrough was made that would have allowed the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) to begin inspections in Iraq, it was the first time that, in recent years, UN and Iraqi technical experts had gathered to discuss the issues before them. Annan said that he hoped another round of discussions would be held within a month.

Meanwhile, the *Washington Post* reported that US Deputy Secretary of Defense Paul Wolfowitz had asked the Central Intelligence Agency (CIA) to investigate whether UNMOVIC Executive Chairman Hans Blix had been too lenient on the Iraqis during his tenure as Director General of the International Atomic Energy Agency (IAEA). The CIA apparently concluded that Blix, a Swedish diplomat, had conducted the inspections of Iraq's declared nuclear facilities 'fully within the parameters he could operate [in]'. Some US officials seem to fear that Iraqi President Saddam Hussein 'will draw us into a diplomatic minuet', dragging out talks on the resumption of inspections for so long that the US will be unable to garner support for a military attack on the country.

On 14 May the UN Security Council unanimously approved a revised 'smarter' sanctions regime against Iraq to slow the flow of military equipment further, while improving the delivery of civilian goods to its population. Even Syria voted in favour of the measure, 'out of concern for the real unity of the Security Council'. The new system requires that a Council committee approve Iraqi orders that have some kind of military application, especially in regard to weapons of mass destruction. Iraq can import any item not on the 300-page 'goods review list' without Security Council endorsement. Under the existing mechanism, the Council had to authorise virtually all goods,

except food and medicine, and any country could bar imports from Iraq. Currently, us\$5 billion worth of contracts are on hold, mostly blocked by the us.

Moreover, Britain has accused Syria of flagrantly violating existing sanctions. It is alleged that Damascus is permitting Iraqi oil to be transported through its pipeline for export via the Mediterranean. Ironically, Syria sits on the committee that monitors implementation of the Iraqi sanctions. The committee has failed to make a recommendation on Syrian non-compliance.

Source www.un.org; Peter Slevin, 'Revised sanctions on Iraq backed', *Washington Post*, 8 May 2002, www.washingtonpost.com; Walter Pincus and Colum Lynch, 'us probed record of UN arms inspector', *International Herald Tribune*, 16 April 2002, p. 1; James Bone, 'Security Council member in Iraqi oil scam', *The Times*, 10 May 2002, p. 15.

UK 'Green Paper' on biological weapons

On 29 April, UK Secretary of State for Foreign and Commonwealth Affairs Jack Straw officially presented a 'Green Paper' on 'Strengthening the Biological Weapons Convention: Countering the Threat from Biological Weapons'. The consultation document was published to solicit feedback from Members of Parliament, non-governmental organisations (NGOs) and other interested parties. It contains a number of specific proposals relating to verification. The one that received the most attention was the suggestion to establish a mechanism for investigations into alleged violations of the BWC. The UK has put forward two alternatives: to improve the existing mechanism under which the UN Secretary-General may investigate breaches of the BWC or the CWC or to negotiate a new international agreement. This mirrors a recommendation made by President Bush on 1 November 2001, but it expands the scope of the US proposal by including investigations of facilities and by stating that such a mechanism would also need to include some scientific and technological assistance elements. The UK also proposes that more information be included in the politically-binding BWC Confidence Building Measures (CBMs) that were agreed in 1986 and has raised the possibility of voluntary visits of BWC states parties to facilities declared under the CBMs. Also flagged was increased disease surveillance efforts.

However, the paper fails to mention some of the verification provisions that the UK considered essential during the failed negotiations on a verification protocol to the BWC (see *Trust & Verify*, no. 98, July–August 2001). These include comprehensive declarations of relevant activities and facilities, mandatory visits to verify such statements, and the creation of an international verification organisation and a professional and standing inspectorate. It is unclear whether these omissions

mean that the UK has given up on them or whether the proposals in the Green Paper are to be viewed as complementing a legally-binding and universal verification protocol.

Source 'Strengthening the Biological Weapons Convention: countering the threat from biological weapons' is available on the Foreign and Commonwealth Office (FCO) website at www.fco.gov.uk. Comments on the paper should be sent to the FCO's Non-Proliferation Department at npd.fco@gt.net.

EU on the road to Kyoto

On 4 March European Union (EU) environment ministers unanimously adopted the legal instrument that obliges each member state to ratify the 1997 Kyoto Protocol to the 1992 UNFCCC. The deal gives legal force to the 'burden sharing' agreement, translating the EU's bloc commitment under the Protocol into individual obligations for the member states. Before the EU can formally submit its ratification instrument to the UN Secretary-General in New York, however, each EU

country has to finalise its own legislative process. Currently, 13 of the 15 members have approved ratification (the exceptions being Greece and Italy).

Under the Protocol, the EU has agreed to reduce greenhouse gas emissions (GHG) to eight percent below 1990 levels by 2008–12. The emissions figures for 2000 show that the EU achieved a reduction of 3.5 percent—0.5 percent less than its ideal target for staying on course to meet its Kyoto commitments. But these figures belie the varying degrees of success of individual members. Six states, including the UK, are more than half way towards meeting their targets under the EU burden sharing 'bubble'. Germany is almost there. However, Spain's emissions rose by four percent between 1999 and 2000—26 percent above its Kyoto target—and Italy recorded steep rises.

Source 'EU gives green light to ratification', 4 March 2002, 'EU climate emissions take wrong turning', 29 April 2002, *Environment Daily*, www.environmentdaily.com, 'EU halfway to Kyoto target', *New Scientist*, 4 May 2002, www.newscientist.com.

Peace Missions Monitor

More verified IRA decommissioning

The Irish Republican Army (IRA) has put more of its weapons verifiably 'beyond use'. The Independent International Commission on Decommissioning announced on 8 April that 'we have witnessed an event in which the IRA leadership has put a varied and substantial quantity of ammunition, arms and explosive material beyond use'. Ulster Unionist leader David Trimble said the move showed that the IRA was now engaged in a decommissioning 'process' and proved that its first act of decommissioning in October 2001 was more than a 'one-off' gesture. Northern Ireland's two main Loyalist paramilitary groups dismissed suggestions that it was now imperative that they follow suit.

Source 'Substantial arms move by IRA', *BBC News Online*, 8 April 2002, www.bbc.co.uk; David Lister, 'Reid denies deal as IRA spikes guns', *The Times*, 9 April 2002, pp. 1 and 2.

Sri Lankan Monitoring Mission begins work

A Sri Lankan Monitoring Mission (SLMM) has started to observe the indefinite ceasefire agreed on 22 February 2002 by the Sri Lankan government and the Liberation Tigers of Tamil Eelam (LTTE). Norway, which has attempted to act as a mediator in efforts to end the 19-year civil war, was responsible for setting up the mission, comprising 23 monitors from Denmark, Finland, Norway and Sweden. The SLMM has begun carrying out on-site verification in the north and the east of the country, responding to complaints of violations with the assistance of six district-level monitoring committees. These three-member committees consist of two members nominated by each side and a representative of the SLMM. The Mission has so far received more than 200 complaints of violations, including from private individuals. Some relate to alleged extortion and forced recruitment of children. The SLMM has warned the LTTE to stop harassing civilians and has accused it of moving heavily armed units into government-controlled areas and of failing to open the main northern road to LTTE-controlled territory. The SLMM played a key role in preventing military action on 1 May via its swift response to a stand-off between the Sri Lankan navy and the LTTE.

It is hoped that the SLMM can assume a crucial role in maintaining the confidence of the parties in the ceasefire, thereby helping to pave the way for negotiations—scheduled for June 2002—on an interim peace agreement.

Source 'LTTE warned and discharged', *Sunday Times* (Colombo), 14 May 2002, www.sundaytimes.lk; 'Monitor the monitors', *Island*, 22 April 2002, 'SLMM rules LTTE violated MoU', *Island*, 2 May 2002; '200 MoU violation complaints', *Island*, 3 May 2002, www.island.lk; 'Sri Lankan Tamil rebels violate truce agreement: monitors', *Xinhua News Agency*, 1 May 2002, library.northernlight.com; 'Navy, LTTE stand-off', *Press Trust of India*, 3 May 2002, www.ptinews.com.



Weather radar spots clouds on horizon

US military scientists conducted a series of tests in April to determine whether long-range weather radar can be used to detect chemical and biological agents released from the air. An attack was simulated off the coast of Key West, Florida, with a crop duster plane releasing harmless chemical compounds. Preliminary analysis of the data indicates that the radar system clearly distinguishes the chemical clouds from weather patterns up to 19 miles away.

Scientists hope that, as part of a US-wide system to detect chemical and biological attacks, new computer software will be installed at the National Weather Service's 153 radar sites within two years. Combined with data from existing military surveillance arrangements, such a system would be useful in co-ordinating civilian responses to an assault.

Source 'US response 1: capabilities expand with weather sensors, jelly beans', *Global Security Newswire*, 12 April 2002, www.nti.org; 'US response: weather radar might detect chemical, biological attack', *Global Security Newswire*, 25 April 2002, www.nti.org.

Fish shine a light on pollution

Identifying dangerous levels of toxins in water once involved either costly equipment or the monitoring of 'sentinel' species, whose death or disease signalled the presence of harmful pollutants. Now geneticists have engineered a breed of 'frankenfish' that are capable of detecting lower concentrations of water pollution more cheaply, efficiently and humanely. These transgenic Golden Zebra fish are modified by inserting into them trout, rat and human genes, sensitive to pollutants, and the luciferase gene, responsible for the glow of fireflies. This combination of genes means that the fish glimmer when exposed to toxins in the water. While the prospect of using such fish for environmental monitoring is promising, scientists are finding it difficult to secure funding to develop sustainable numbers of the species.

Source 'The tough get glowing', *New Scientist*, 12 January 2002, pp. 36–37.

Verifying the written word

Software engineers at the SAS Institute in Cary, North Carolina, have developed a new computer programme called the Text Miner, which they claim can sift through large volumes of text to spot when people are lying or confused about the truth. Based on a statistical algorithm that compares text to samples in its document database, the Text Miner searches for changes

in writing style that can emerge when an author is concealing facts or is unsure about the truth. The software gives the text a probability rating to indicate how genuine or suspicious it seems. It is sophisticated enough to pick up clear examples of lies, but, more importantly, can alert people to more ambiguous cases where human analysis is required.

While there are numerous ways of detecting oral lies, methods of detecting written lies are less common. Police forces are already planning to employ the Text Miner in investigations where there is a need to examine large amounts of written evidence and testimony. It could also serve as a new verification tool, helping to confirm the veracity of written statements and documents provided to monitoring bodies.

Source 'Software can spot digital deceivers', *BBC News Online*, 22 January 2002, www.bbc.co.uk.

Robot reporter on the frontline

Researchers at the Massachusetts Institute of Technology (MIT) in the US have created a robotic correspondent to collect news stories from war zones. Designed to take pictures, record sounds and perform interviews, the Afghan Explorer looks like a cross between a space rover and a robotic pet. The robotic journalist is modelled on NASA's Mars Explorer, combining a range of technologies to enable it to be operated remotely from a safe location. Powered by solar energy, it can move at a top speed of four miles per hour on its four all-terrain wheels. Navigation is achieved using the Global Positioning System (GPS). The robot is fitted with a digital video camera and a digital recording and intercom system for two-way visual and oral communication. Sound and image data are transmitted via satellite.

Since the 1990s, journalists' movements in battle zones have been heavily restricted. There was no footage from the frontlines in Afghanistan, for example. Chris Csikszentmihalyi, director of the research team, believes that the Afghan Explorer could give journalists—and the public—greater access, without putting civilian lives at risk. Similar machines, equipped with sensors could also be constructed for cheap, independent verification missions or border monitoring, providing interested parties with instant images and information.

Source 'Robo-reporter goes to war', *BBC News Online*, 28 March 2002, www.bbc.co.uk; 'Robot would put journalists in hot spots without the danger', *Seattle Times*, 1 April 2002, www.seattletimes.com.

Global verification spending study

VERTIC has released its long-awaited study by Tom Milne on global spending on verification and verification-related research in the nuclear arms control, disarmament and non-proliferation fields. The product of an 18-month study, *Global spending on Nuclear Disarmament Verification Work* is the first publicly available survey of its kind. Published as the third report in the Verification Matters research series, the paper is available from VERTIC. An order form can be downloaded from www.vertic.org.

Brainstorming seminar on the OPCW

VERTIC convened a 'brainstorm' on 7 May as part of its project on the implementation of the CWC. Project leader Joan Link and VERTIC staff were joined by Nicholas Sims of the London School of Economics and Political Science, Julian Perry Robinson and Daniel Feakes of the Science Policy Research Unit at Sussex University and John Walker of the Arms Control and Disarmament Research Unit at the FCO. The goal is to produce a report for consideration by states parties as part of their preparations for the First CWC Review Conference in April 2003.

VERTIC climate change workshop

On 13 September 2002, VERTIC will hold the second in its series of London workshops on the Kyoto Protocol's verification regime. Entitled 'Getting on with it: overcoming obstacles to early implementation of reporting and review under the Kyoto Protocol', the workshop will involve a range of participants, including officials from the UNFCCC Secretariat, national representatives and NGOs. It intends to identify the requirements for getting the verification regime off to a smooth start. A number of case studies will be used to highlight different countries' experiences—good and bad—of implementing their national legislation and establishing the systems necessary for meeting their commitments under the protocol. For more information contact Molly Anderson by phone on +44.(0)207.440.6967 or by e-mail at m.anderson@vertic.org.

VERTIC takes part in CTBT expert discussion

VERTIC was the only non-governmental observer at a meeting of experts on the scientific and civil application of CTBT verification technologies, which was co-hosted by the Comprehensive Nuclear Test Ban Treaty Organisation (CTBTO)'s Provisional Technical Secretariat (PTS) and the FCO from 9–10 May in

London. Attended by PTS specialists and national experts from a wide range of countries, the meeting was designed to assist the PTS in producing a report on the possible scientific and civil uses of the four monitoring technologies (and data) used to verify compliance with the CTBT. VERTIC's view is that, in the interests of transparency and scientific and technological advancement, there should be no barriers to usage in these spheres.

Ploughshares grant for BW project

VERTIC has been awarded a grant of US\$40,000 by the Ploughshares Fund of San Francisco to support a one-year study of the national implementation legislation enacted by states parties to the BWC. The project, which is to be conducted by VERTIC's Legal Researcher, Angela Woodward, will survey all existing national legislation relating to basic state party undertakings under the treaty—the non-production and non-acquisition biological and toxin weapons. The study will also seek to identify the best models of legislation and make recommendations on how states can be encouraged to fulfil their legislative obligations appropriately.

CESD/VERTIC meeting on BW

The resumed session of the Fifth BWC Review Conference, which is to be held in November 2002, was the topic of a meeting between NGOs and representatives of the Council of the EU's Working Group on Global Disarmament and Arms Control on 24 April in Brussels, Belgium. The seminar was organised by the Brussels-based Centre for European Security and Disarmament (CESD) and VERTIC. Oliver Meier gave a presentation on 'The way forward with verification'. A report of the seminar is available from VERTIC on request.

Staff news

MOLLY ANDERSON participated in a UNFCCC workshop on adjustment methodologies in Athens, Greece, from 3–5 April. She also attended two of five course modules on climate change run by the Continuing Education Department at Imperial College, University of London. The first, on 15 April, concentrated on climate science. The second, on 19 April, dealt with the issues surrounding carbon sinks. Molly has also been preparing for a VERTIC climate change workshop that is to be held in September 2002.

VANESSA CHAGAS continued to analyse the monitoring arrangements for the various Agenda 21 items to be considered at the WSSD. In addition, she has assisted with general office duties.

TREVOR FINDLAY chaired a meeting on 17 April between VERTIC and the International Security Information Service (ISIS) to discuss current projects and issues of mutual concern. On 23 April he and Oliver Meier briefed Chandrika Nath, a UK parliamentary researcher, on nuclear issues relevant to the inquiry into the safety and security of nuclear materials initiated by the House of Commons Select Committee on Science and Technology. From 26–28 April he participated in the Stanley Foundation's Conference on 'Technology access for the developing world: reconciling global regimes and national security objectives' at Arden House, Harriman, New York. In addition, he visited funders in Chicago and New York and held talks with the UN Under Secretary-General for Disarmament Affairs, Jayantha Dhanapala, at UN headquarters. On 9 May he and Oliver Meier participated as observers in an experts' workshop on the scientific and civil applications of CTBT verification technologies.

BEN HANDLEY attended two courses on electronic bookkeeping. He has also introduced new procedures for backing up VERTIC's electronic data, upgraded the Centre's computers, produced financial reports for the Board and undertaken research for VERTIC's statutory risk assessment and financial reserves policies.

JOAN LINK visited The Hague from 23–25 April to talk to staff at the OPCW Technical Secretariat about her CWC project. She also met with representatives of the states parties. She made several visits to the Harvard Sussex Project Library at Sussex University to conduct documentary research. On 7 May, Joan chaired a brainstorming session at VERTIC on her project, involving VERTIC staff and outside experts.

OLIVER MEIER, along with Trevor Findlay and Angela Woodward, held discussions, on 8 April, on strengthening the BWC with a visiting delegation from the US General Accounting Office. On 26 April Oliver participated in a roundtable on 'Verification: The Changed Context' with the Indian Joint Secretary for Disarmament and International Affairs, Sheel Kant Sharma, at the International Institute of Strategic Studies (IISS). On 29 April he attended the official launch of the UK Green Paper on strengthening the BWC at the FCO. An interview with Oliver on US nuclear weapons policy was published in the German online magazine, *telepolis*, on 31 March, and in the German daily, *Neues Deutschland*, on 20 April. On 10 April,

Verification Quotes

I would have advised against calling these guys monitors. It's a loaded term. I would have said, "Let's say they're going to perform the function of incarceration verification".

Unnamed US official commenting on the use of British and American monitors to ensure that five Palestinian prisoners are kept in detention by the Palestinian Authority, as part of a deal to end the Israeli siege of Palestinian leader Yasser Arafat's headquarters in Ramallah. Reported in James Bennet, 'A US foot in the door?', *New York Times*, 30 April 2002, www.nytimes.com.

The hawks' nightmare is that inspectors will be admitted, will not be terribly vigorous and not find anything. Economic sanctions would be eased, and the US will be unable to act.

Unnamed US official on fears that the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) will be ineffectual and will prevent the US from launching a military attack to remove Iraqi President Saddam Hussein, *International Herald Tribune*, 16 April 2002, p. 1.

We are ready for the deployment of independent international observers on both sides of the Line of Control to see for themselves there is no cross border activity taking place.

Pakistani Foreign Affairs spokesman Aziz Ahmed Khan, quoted in Howard W. French, 'Pakistan calls for border monitors to help ease crisis', *International Herald Tribune*, 21 May 2002, p. 4.

This is not an impression, it's the verification of a coup in Venezuela that I hope has a democratic solution.

President Eduardo Duhalde of Argentina commenting on the interpretation of the military rebellion that led to the temporary removal from power of Venezuelan President Hugo Chavez. Quoted in Larry Rohter, 'US–Latin breach over Chavez', *International Herald Tribune*, 16 April 2002, pp. 1 and 9.

The elimination of the world's deadliest arms—especially nuclear, biological, and chemical weapons—would lead to a more prosperous and secure world for all. Yet mutual suspicions continue to keep us from achieving this great common destiny. In an imperfect world, verification measures offer a bridge over the troubled waters of international mistrust. They offer a path to mutual reassurance and understanding. Given sustained political support and adequate technical resources, they offer the prospect of a revolution in disarmament affairs, a healthy alternative to endless military competition and its familiar cycle of arms races and war. They are needed now more than ever.

UN Secretary-General Kofi A. Annan, personal statement to the United Nations Association–UK, New York, 1 May 2002.

The last few months Russia has not been co-operating with inspection teams. Whether or not they are hiding anything is one question, but the true tragedy of any cuts to [Cooperative Threat Reduction efforts] would be the submarines awaiting full decommissioning in Murmansk and Vladivostok. This would simply fuel an ecological disaster for political posturing.

Alexander Pikayev of the US-based Carnegie Endowment for International Peace, quoted in Charles Digges, 'Nunn–Lugar in jeopardy', Bellona Foundation, 10 April 2002, www.bellona.org.

the German online magazine, *Netzeitung*, published an op-ed by Oliver on the 30th anniversary of the BWC. He had an article on 'Verification of the Biological Weapons Convention: What is Needed?' published in the April–June issue of the *Medicine, Conflict and Survival* journal, and a paper by Oliver on 'The Use of Open Source Information in Multilateral Arms Control and Disarmament Regimes Paper' appeared in the proceedings of the third Workshop on Science and Modern Technology for Safeguards, which was held in Tokyo, Japan, from 13–16 November 2000.

MIRAK RAHEEM continued his work on Middle East peace monitoring arrangements and proposals, as well as the new mission to monitor the ceasefire in Sri Lanka. He has also helped with general office duties. He completed his internship at VERTIC on 17 May.

JOHN RUSSELL has finished work on an educational brochure, focussing on the verification of arms control and disarmament agreements, which is to be published shortly by VERTIC and

the United Nations Association of the UK. He has also been promoting VERTIC's *Verification Yearbook 2001* and helping to distribute other recent VERTIC publications. He has been continuing with his research on the 1992 Open Skies Treaty, and, on 16 April, attended an ISIS meeting on unexploded ordnance destruction under the 1981 Convention on Certain Conventional Weapons.

ANGELA WOODWARD, along with Oliver Meier, participated in the Geneva Forum meeting on 'Civil Society Monitoring: comparing experiences, exploring relevance to Biological Weapons' in Geneva, Switzerland, from 21–22 March. Along with Trevor Findlay and Oliver Meier, she met with Eric Hoskins at VERTIC on 27 March to discuss the UN project on monitoring children in armed conflict. Angela attended the Small Arms Survey 2002 Review Conference in Geneva on 12–13 April and the Landmine Monitor 2002 Global Researchers' Meeting in Paris, France, from 16–19 April. On 22 April, she met with Nicholas Sims to discuss VERTIC's project on national implementation legislation for the BWC.



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

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