

ON THE THRESHOLD: THE UNITED NATIONS AND GLOBAL GOVERNANCE IN THE NEW MILLENIUM

WEAPONS OF MASS DESTRUCTION

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As the twenty-first century dawns, weapons of mass destruction (WMD) continue to be one of humankind's scourges. Nuclear weapons, the most feared and destructive, remain ensconced in the strategic calculations of greater and lesser powers and in the armouries of at least eight of them. Only two years before the end of the last millennium, two new declared nuclear weapon possessor states suddenly appeared. Although deliberate nuclear war seems remote, with the exception perhaps of India and Pakistan, accidental nuclear war remains frighteningly possible. With even deep cuts stalemated, nuclear abolition, a prospect so tantalizingly raised by Presidents Reagan and Gorbachev in the mid-1980s, again seems a distant prospect. Even the anti-ballistic missile debate has re-emerged to complicate nuclear arms control. The danger of 'nuclear leakage' from Russia remains high. While chemical and biological weapons have been subjected to impressive constraints under international law, the threat of their acquisition and use will remain as long as the bans are not universal and transparency is incomplete. Less tractable than control over weapons of mass destruction themselves has been control over their means of delivery, with ever more states acquiring, in particular, ballistic missile capabilities.

This paper seeks, first, to assess the short- and medium-term outlook in the twenty-first century for weapons of mass destruction. Second, it examines the contradictory effects of globalization. Finally, it attempts to identify the major challenges ahead and the actors and measures that hold the most promise of tackling them.

Outlook for the beginning of the New Millennium

Judging the proliferation outlook at any point in time is riven with pitfalls. The arbitrary passing of the second Christian Millennium is no exception. Since weapons of mass destruction programs are by their very nature secretive, assessing the truth is inherently difficult. The subject is plagued by speculation, rumour, exaggeration and worst-case scenarios, often based on little evidence. Intelligence and defence communities are prone, for self-serving reasons, to exaggerate the threat and underestimate the normative, political, legal, economic and practical barriers to rampant proliferation of weapons of mass destruction. The peace movement often falls victim to the same temptation, hoping that through exaggeration will come redemption. The media remains to a large extent interested in sensationalism and scare mongering to increase its market share. Pundits and commentators recycle such reports, which even insinuate themselves into official and academic analyses.

With these caveats in mind and viewed globally across the three types of weapons of mass destruction (nuclear, chemical and biological), the current situation has some encouraging, albeit much overlooked, characteristics—despite recent setbacks. First, the vast majority of states is now committed not to acquire any weapons of mass destruction by virtue of their membership of the Nuclear Non-Proliferation Treaty

(NPT), the Comprehensive Nuclear-Test-Ban Treaty (CTBT), the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BTWC). For the vast majority of these states, compliance will be axiomatic. In any event, compliance by all states parties is, or will shortly be, subject to verification by four increasingly sophisticated multilateral verification systems.¹ Hence, the problem, taking into account current and potential likely possessors, is a tiny minority of states and even these are not involved in all types of WMD. Second, since the end of the Second World War, the use of WMD has (admittedly through a combination of good luck and good management) been almost non-existent, with only chemical weapons making a brief confirmed appearance. Third, WMD are a problem now effectively confined to the Northern Hemisphere. While the Southern Hemisphere would certainly be affected by a nuclear exchange or large-scale biological warfare, and individual countries could be specifically targeted by WMD, the fact remains that Africa, Southeast Asia, Oceania and Latin America are essentially nuclear- chemical- and biological-weapon-free.

Beyond these global trends, however, the situation is decidedly mixed, with each type of weapon of mass destruction in a different situation in different regions. The greatest threat of new acquisition and use of WMD comes from the Eurasian landmass, particularly the Middle East, South Asia and East Asia.

Nuclear Weapons

Predictions that by the end of the century there would be twenty or more nuclear weapon states have proved false, largely because of the successful pursuit of nuclear non-proliferation and arms control strategies. There is no reason to suppose this will change adversely in the 21st century. The NPT, the five existing nuclear weapon-free zones (Antarctica, Africa, Latin America, South-East Asia and the South Pacific) and soon a sixth in Central Asia, and a web of nuclear safeguards overseen by the International Atomic Energy (IAEA), ensure that the vast majority of states will never seek to acquire nuclear weapons and their compliance will be verified. Two recent aspirants to the nuclear club, Iraq and North Korea, have at least temporarily been thwarted, while four states Belarus, Kazakhstan, South Africa and Ukraine have voluntarily surrendered their nuclear weapons. The accession of Brazil to the NPT in 1999 brings the last country with a significant indigenous, but unrealized, nuclear potential into the treaty. The only significant holdouts from the NPT are Israel, India and Pakistan. Also a cause for optimism is the new IAEA Strengthened Safeguards System which, in greatly increasing the scope of traditional safeguards and giving the Agency an enhanced ability to uncover non-declared nuclear activities, will help detect and deter future attempts at non-compliance with the NPT like the Iraq and North Korean cases.

There have been no atmospheric nuclear tests for twenty years. The Comprehensive Nuclear-Test-Ban Treaty (CTBT), the crowning jewel of nuclear arms control in the 1990s, has codified the almost universal norm against nuclear testing in any environment. It has acquired a large number of signatures and been ratified by France and the UK. All the other recognized nuclear weapon states (NWS) have at least signed it, committing them not to frustrate the purposes of the treaty by conducting nuclear tests unless they specifically renounce it. In addition, they have all imposed unilateral testing moratoria on themselves. Since the NWS presumably resigned themselves to foregoing the testing option before signing (and began to prepare

alternatives), it is unlikely they will ever resume, even if the treaty does not enter into force soon. Despite India and Pakistan's spasm of nuclear testing in May 1998, they too have declared moratoria. The twentieth century may indeed have seen both the beginning and end of nuclear testing.

The number of nuclear weapons in existence is now the lowest since the 1970s, as is the total megatonnage. Both the US and Russia continue to dismantle nuclear weapons under their 1994 START I agreement to a level of 1600 deployed delivery vehicles with 6000 accountable warheads by December 2001.² In addition, an entire class of nuclear weapons has been banned by the 1987 Intermediate-range Nuclear Forces (INF) Agreement. Compliance has been good and the verification system has worked well for both agreements. Meanwhile, US short-range and tactical nuclear weapons have been withdrawn in large numbers from deployment abroad.

On the other hand, the Russian and US nuclear arsenals remain obscenely large and there is no momentum to dramatically reduce them further, much less evidence of a willingness to achieve eventual nuclear disarmament. Although they have been de-targeted, ballistic missile-delivered nuclear forces remain on hair-trigger alert, an inexplicable hangover from the Cold War. Preliminary talks have begun on START III, which Presidents Yeltsin and Clinton agreed in Helsinki in 1997 should reduce US and Russian arsenals to 2000-2500 strategic nuclear warheads each, but actual negotiations, at US insistence, are linked to ratification of START II. START II, which envisages cuts in deployed strategic nuclear weapons to 3,500 each side by 2003, has only been ratified by the US, while ratification by Russia is held up in the Duma.³ Linkage politics has been at work here too, with Russian politicians holding ratification hostage to NATO expansion and then NATO bombing of Kosovo, but more enduringly to US attempts to re-write the Anti-Ballistic Missile (ABM) Treaty to accommodate limited missile defences. Even if START II were implemented tomorrow, the number of extant nuclear weapons would be surprisingly large: the combined US/Russian total, including tactical, short-range and cruise missile warheads, spares, stockpiles and reserves, would be 10-11,000 weapons.⁴

American attempts to find a technological fix to proliferation problems by deploying a pared-down version of the discredited Strategic Defense Initiative (SDI), to counter future (not yet actual) long-range delivery capabilities by 'rogue states', is alarming not just Russia, but China and US NATO allies. Both Russia and China have indicated that they will respond with new weapons systems of their own. Most worryingly US plans threaten to destroy the Cold War consensus that the ABM Treaty's ban on anti-ballistic missile systems was a key concomitant of efforts to achieve a balanced, steady reduction in strategic nuclear arsenals. START III is thus stultified.

Threats to rearm notwithstanding, Russia's economic meltdown since the collapse of the Soviet Union has put its nuclear capability into steep and probably irreversible decline. Igor Khripunov claims that continued economic turmoil and slow recovery could reduce Russia's strategic nuclear arsenal to 300-350 warheads early in the new century.⁵ Yet, perversely, the accompanying decline in Russian conventional military capabilities has produced pressures to increase reliance on nuclear weapons, including tactical weapons. Russian nuclear doctrine has been amended to accommodate first use and there are periodic calls for development of new nuclear capabilities, including

the arming of the new Topol-M ballistic missile with multiple warheads (so-called 'Mirving'), rather than the single warhead that would be compliant with START II and beyond.

Of the other nuclear weapon states, China continues to modernize its nuclear arsenal slowly, notwithstanding allegations in the May 1999 Cox Report that espionage would enable it rapidly to match certain US capabilities. The size of China's arsenal, although secret, probably remains small, at about 400 (strategic and tactical).⁶ Britain and France have meanwhile been quietly reducing both their weapon holdings and the variety of their delivery systems. Britain now relies entirely on a small submarine-based nuclear deterrent, with fewer than 200 warheads, while France has abolished the land-based leg of its triad and is likely to have around 400 weapons by 2005.⁷ Both the French and British arsenals are the smallest for decades, but their reductions have now stopped to preserve what they perceive to be a minimum deterrent. France is modernizing its force.

India and Pakistan are of much greater concern than the older nuclear weapon states, since they are engaged in perpetual low-level armed conflict involving bitter territorial disputes. Although they have been known to be nuclear-capable for decades, their sudden spasm of tit-for-tat nuclear testing in May 1998 was a bitter blow to non-proliferation and arms control efforts. Combined with sustained efforts by both to acquire ballistic missile delivery systems, the publication of India's draft nuclear doctrine calling for a sophisticated nuclear triad, and the Pakistani military's October 1999 coup, the situation is extremely worrying. Meanwhile, the one extant undeclared nuclear weapon state, Israel, maintains both a sophisticated nuclear arsenal of an estimated 100-175 weapons and an implausible pledge that it will not be the first to 'introduce' nuclear weapons into the Middle East.⁸

The situation with regard to the other states with known nuclear ambitions, Iraq and North Korea, is less dramatic, but worryingly uncertain. Iraq was subjected to an unprecedentedly intrusive multilateral verification regime which, despite Iraqi obfuscation and chicanery, managed to obtain a detailed picture of the country's attempts to acquire all three types of weapons of mass destruction and to demolish substantial elements of such capabilities and their accompanying infrastructure, including long-range ballistic missile delivery systems. Unfortunately the UN Special Commission (UNSCOM) was expelled in December 1998 and Iraq has since remained uninspected.⁹ Iraq has to date rejected cooperation with UNSCOM's successor, the UN Monitoring, Verification and Inspections Commission (UNMOVIC). However, sanctions remain in place and Iraq's import activity is being monitored.

North Korea is another *sui generis* case. Its suspected violation of the NPT and threatened withdrawal from the treaty was met with a 1994 Agreed Framework brokered by the United States which offered the country a proliferation-resistant nuclear power capacity in return for a verified freeze of its existing nuclear activities. The deal has remained unconsummated in key respects. While North Korea has repeatedly tested the limits of the agreement and refused comprehensive access to its nuclear facilities and materials by the IAEA, it has not completely reneged on its commitments and offers periodic gestures, such as permitting the US to inspect a suspected underground nuclear site in May 1999.

All of these proliferation challenges will remain with us into the new millennium. On the other hand, given the tightening web of agreements, enhanced verification and monitoring, and the transparency that comes with globalization, new proliferators which attempt to build a nuclear arsenal from scratch are much less likely to appear without significant advance warning. More likely is the sudden acquisition by a would-be proliferator of a nuclear weapon or nuclear materials from an outside source.

In this context, apart from the India-Pakistan nuclear stand-off, the most dangerous proliferation scenario at the outset of this new millennium is the crumbling nuclear infrastructure of the former Soviet Union. While command and control and physical safeguards on strategic nuclear weapons are regarded as generally satisfactory, the situation with regard to non-strategic nuclear weapons, nuclear components and fissionable materials is of major concern. Poor physical security, lax controls, non-existent accounting for nuclear materials and the collapse of funding for the Soviet 'nuclear cities', nuclear laboratories and their staff have rendered 'nuclear leakage' from Russia a greater threat than its possible use, either accidental or deliberate, of nuclear weapons. While there have been no confirmed cases of leakage of weapons-grade nuclear materials from Russia, the danger persists. The United States in particular has responded with several imaginative co-operative programs, including the so-called Trilateral Initiative with the IAEA. Yet the rest of the world, including Europe, which should have so much to fear from the situation, has done little.

Multilaterally, progress towards nuclear disarmament appears logjammed. While non-entry-into force of the CTBT is unlikely to result in resumed nuclear testing, it does preclude full implementation of its verification system. In addition, a major undertaking by the nuclear weapon states to the non-nuclear weapon states will remain unfulfilled. This greatly compounds the suspicion of the non-nuclear weapon states that the nuclear powers have no intention of achieving complete nuclear disarmament, as they are committed to do by the NPT a commitment reinforced by the July 1996 Advisory Opinion of the International Court of Justice. Many fear that one of the grand bargains encapsulated in the NPT the disavowal of nuclear ambitions by the vast majority of 'have nots' in return for eventual nuclear disarmament by the 'haves' will break down. For their part, the non-nuclear weapon states have been unacceptably lax in fulfilling their legal obligations to conclude full-scope safeguards agreements with the IAEA and to sign and ratify Additional Protocols to strengthen such safeguards.

The poisonous atmosphere between the two groups has stultified the multilateral disarmament process in the Conference on Disarmament (CD), which is rapidly losing credibility. The negotiation of an almost universally supported Fissile Material (Cut-Off) Treaty (FMT) has been inexplicably blocked by the demand of some members for the commencement of, at the very least, discussions on nuclear disarmament. Even the ABM issue has soured the atmosphere, with China demanding that the outer space issue be given attention before it will agree to FMT negotiations. The NPT Review Conference in April/May 2000 will be a bitter affair, although no state party is likely to be willing to push the treaty to the brink, since its benefits continue to vastly outweigh its perceived shortcomings.

Although difficult to quantify, the voices in favour of nuclear disarmament apparently continue to gather strength. Officially sponsored reports like the Canberra Commission and the Tokyo Forum, the initiatives of the 7-nation New Agenda Coalition (Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa and Sweden) and non-governmental activities such as the Middle Powers Initiative and Agenda 2000, are keeping the public aware of the nuclear issue and maintaining pressure on governments. Even a draft Nuclear Weapons Convention has been prepared to demonstrate the feasibility, at least on paper, of a ban on nuclear weapons.¹⁰ It has been tabled by Malaysia in the UN General Assembly. Perhaps as important, a steady stream of retired political leaders, government ministers, military officers and others who once held high office in the nuclear weapon states are adding their voices to the calls for nuclear disarmament.

Nonetheless, public opinion remains largely apathetic. There also remain significant pockets of opposition to nuclear disarmament or even nuclear arms control in political parties, defence departments, nuclear weapon laboratories and research organisations in the nuclear weapon states and elsewhere. Despite periodic rhetorical flourishes, none of the nuclear weapon states has evinced a commitment to total nuclear disarmament or even to declaring that the only purpose of nuclear weapons is to deter their use by others, as called for by the Canberra Commission. While so-called negative security assurances by the declared nuclear weapon states have been given the legitimacy of a 1985 Security Council resolution, even these have been undermined, at least in the case of the US, by a willingness to consider use of nuclear weapons against non-nuclear weapon states which use chemical or biological weapons. The CD has abandoned hope of ever negotiating a treaty on the subject.

Overall, US 'counter-proliferation' policy contains the worrying implication that the United States is willing to forego multilateral approaches in favour of unilateral approaches, as demonstrated by its bombing of a factory in Sudan in 1998 which was allegedly connected with chemical weapons production and/or storage. As long as the NWS refuse to pursue more seriously their obligations under the NPT, their efforts to counter proliferation by other means will be viewed as hypocritical.

Chemical Weapons

The situation with chemical weapons is fundamentally different from that of nuclear weapons to the extent that there exists an almost universal norm against their acquisition and use, a strong multilateral disarmament regime binding states to a total ban and a verification regime to ensure that such commitments are complied with. The Chemical Weapons Convention currently has 121 parties and 48 signatories (the major gap is in the Middle East, where several Arab countries have declined to become parties on the grounds that Israel retains nuclear weapons). The Organization for the Prohibition of Chemical Weapons (OPCW) is firmly established in the Hague and is carrying out its verification activities professionally and effectively. The greatest problem encountered to date is the inability of Russia to meet its obligations to rid itself of chemical weapons stocks by the due date. However this is a resource problem rather than one of political will. Certain steps by the US to unilaterally modify its legal obligations under the Convention are also of concern. To date, however, there has been no known deliberate, substantive violation of the CWC and its implementation has immeasurably increased knowledge and awareness of both former and potential CW capabilities. The task in the coming decades will be to

ensure that those states suspected of CW capabilities or intentions are brought into the regime. A useful incentive will be the restrictions on trade in certain chemicals with non-CWC parties which were imposed from the end of 1999.

Biological Weapons

The case of biological weapons is also heartening to the extent that there is an international norm and a multilateral treaty, dating to 1972, which is now being provided with a long-overdue verification system. An Ad Hoc Group of states parties is currently negotiating a protocol to the Biological Weapons Convention and narrowing differences on a complex text.¹¹ The need for a verification system has been demonstrated not only by the case of Iraq, but also that of the former Soviet Union. It has been recently confirmed that the Soviet Union maintained a BW capability after it became a party to the BWC. Rapid developments in the biological sciences, including genetic engineering and the spread of biotechnology to increasing numbers of countries since the treaty was negotiated, make the establishment of a verification system imperative. Unfortunately, pressures from the lucrative biotechnology industry and national security sensitivities may combine to produce a less authoritative verification regime than for the CWC. In any event, a new multilateral verification agency, an Organization for the Prohibition of Biological Weapons (OPBW), is likely to be established, albeit one that is smaller and less systematically intrusive than the OPCW. Nonetheless, it is encouraging that the negotiations have come so far and that the endgame appears in sight. One of the tasks in the coming decade will be to achieve universality of membership of the BTWC and to ensure as many parties as possible sign and ratify the new Protocol.

Delivery Systems

Since it is pointless having weapons of mass destruction unless they can be delivered effectively (or at least convincingly to those one is attempting to deter), the proliferation of means of delivery cannot be left out of any assessment of the proliferation situation. Here the outlook is much murkier than even for the weapons themselves. Many delivery systems, from artillery shells to aircraft, are dual-use, capable of delivering conventional weapons as well as WMD. Apart from the START and INF treaties' limits on ballistic missiles, the main constraints on delivery systems are ad hoc groupings of states which seek to impose export controls on systems, components and technology.

The most notable is the Missile Technology Control Regime (MTCR), which has expanded both in membership and in the scope of its controls since the end of the Cold War. For major developing countries, however, it is seen as a cartel intent on denying them state-of-the-art technology. Unilateral export controls by the United States, in league with other technologically advanced countries, strengthen this impression, as do export control regimes in relation to WMD and conventional weapon capabilities, notably the Nuclear Suppliers Group, the Zangger Committee, the Wassenaar Arrangement and the Australia Group.¹² While these regimes have done a reasonable job of controlling technology transfers to 'pariah states' and slowing the transfer of goods and technology needed to produce weapons of mass destruction, countries like India, Pakistan, Syria, North Korea, Iran and Iraq continue to have ambitions for acquiring long-range missile delivery systems. They are unlikely ever to forego these as long as the NWS reserve the right to retain these capabilities themselves. Some of these states and others, including China, which

remain outside the control regimes, also appear content to assist proliferation to others regardless of the regional or global consequences.

The Effects of Globalization¹³

As in many other areas, the effects of globalization on the proliferation and control of weapons of mass destruction have been and will continue to be simultaneously beneficial and harmful. In making it harder to control knowledge, technology and expertise, globalization makes it harder to control the spread of weapons of mass destruction. Information on how to construct a nuclear weapon, combine the chemical precursors necessary to make chemical weapons or obtain the growth cultures necessary for rapid production of biological weapons may be posted on and downloaded from the Internet in an instant. Modern telecommunications permit similarly rapid person-to-person exchanges of information. The globalization of markets and finance and the ubiquity of modern global travel and trade make it impossible to completely prevent illicit goods and services being exported, as the trade in drugs and endangered species illustrates. It also means a blurring of the distinction between civilian and military items. Critical technologies like advanced machine tools and testing equipment, information technologies and biotechnology have WMD or other military applications, but are also essential to the development of a legitimate modern industrial economy. In recognition of this the US recently relaxed export controls on supercomputers.¹⁴

Globalisation is also, however, having benign effects on non-proliferation and arms control efforts. Information technology is permitting a wider dissemination of information more quickly to all parts of the globe, enhancing transparency and empowering those seeking to contain or end the WMD threat. Governments are finding it increasingly difficult to control the flow of information in and out of their territory, providing a boost for democracy, advocacy and unofficial monitoring. Societal verification, so long regarded as utopian and naïve, will be facilitated by such developments.

Globalization is also permitting official global verification networks to be more effective than they could be even a decade ago. The Provisional Technical Secretariat for the CTBT Organization in Vienna, for instance, plans to become the focal point for a global 24-hour network of 321 monitoring stations linked in real-time via satellite to detect and identify illicit nuclear tests. Modern communications and off-the-shelf equipment permit monitoring stations to be located in the remotest and harshest environments. The IAEA and OPCW are also globally networked and their operations enhanced as a result of the same technological revolution. A global network of commercial satellites can now provide imagery, at low cost, that matches the resolution and quality of that of secret US military satellites. This will prove a boon for official and unofficial monitoring efforts alike. The posting of high-resolution satellite imagery on non-governmental websites, as the Federation of American Scientist has done with photos of North Korea's meagre missile test facilities, is just the beginning of a new era of global transparency.

The creation of global news networks has also resulted in non-proliferation issues becoming better and more rapidly known. The nuclear tests by India and Pakistan were known around the globe almost as soon as they were announced and reactions

were registered immediately in the global media. Such a development permits faster mobilization of efforts designed to counter such developments.

Key Challenges and Responses

Despite the promise of the end of the Cold War that multilateralism would be the wave of the future, and the promise of globalization that interdependency will advance inexorably, one of the contradictory motifs of our time appears to be a loss of faith in the arms control and disarmament process. There has been a scandalous lack of vision and determination on both sides of the former East-West divide to take advantage of the end of the Cold War. Much strategic thinking appears to neglect the fact that communism is dead and the Soviet empire dismantled. Significant political opposition exists in the politics of both the United States and Russia to arms control and disarmament per se; the preferred alternative is seen as strong national defence capabilities, whether conventional or nuclear. Isolationism and unilateralism are constant themes in both US and Russian history and it is difficult to see how outsiders can influence such phenomena, since interference from outside simply confirms the worst fears of those favouring such isolationism. The UN is particularly powerless to act in such circumstances.

The United States bears the greatest responsibility for displaying leadership, being the superpower which not only ‘won’ the Cold War, but whose governmental system remained intact, whose economy has subsequently boomed and whose nuclear and conventional forces are overwhelmingly powerful. As the dominant world power the United States is able to be magnanimous, generous and creative—and all in its own self-interest—in pursuit of its avowed aim of abolishing all weapons of mass destruction. Its timidity in pursuing nuclear reductions in the past five years, its mishandling of CTBT ratification, its retrograde policy towards verification of the BWC and its unilateral reinterpretation of the CWC are all evidence of the opposite of leadership.

The United States in particular holds the key to progress in almost every aspect of the proliferation problem. Most notably it could unblock the nuclear logjam virtually overnight. In significantly reducing its own reliance on nuclear weapons and moving towards nuclear disarmament, it would encourage Russia to be more at ease with its own enforced nuclear disarmament, incline others to view more favourably the perceived US need for limited missile defences, help kick-start the FMT negotiations, restore the faith of the non-nuclear weapon states in the NPT and expose the likes of India in mounting its anti-NPT campaign. In the case of biological weapons its influence could bring the Protocol negotiations to an early and successful conclusion, while in the chemical weapons area it could bolster faith in the treaty as originally conceived through unilateral action and multilateral persuasion. This is not to absolve other states of responsibility, particularly the permanent five members of the Security Council and all other WMD possessors, but to emphasize that with wealth, power and privilege comes responsibility. Some of the key challenges which require US leadership, along with the participation of other key states, are described below.

1) Rejuvenating the nuclear arms control process

Bilateral arms control/disarmament appears trapped in a legalistic, treaty-bound paradigm, when less conventional, more creative means would do just as well. The decision of President George Bush in 1991 to withdraw most US tactical nuclear weapons from deployment and reduce the alert status of US nuclear bombers was just as effective an arms control measure as laboriously negotiated treaties like the Threshold Test Ban Treaty (TTBT) and the Peaceful Nuclear Explosions Treaty (PNET). The United States could simply bypass the current nuclear disarmament deadlock by removing the warheads from say 1,000 nuclear missiles, placing them in 'bonded' storage (or strategic escrow) away from the delivery systems and inviting the Russians to observe the process.¹⁵ The Washington-based Henry L. Stimson Centre has proposed a broader series of parallel, reciprocal and verifiable steps to 'jump-START' the nuclear arms control process and reduce nuclear weapon arsenals to 1,000 each within a decade.¹⁶ Cradle-to-grave transparency on the status of all US and Russian nuclear weapons, agreement with other nuclear weapon states on a 1,000-weapon ceiling and enhanced reciprocal verification measures are also proposed. Other unilateral steps, including by the smaller nuclear weapon states, are also possible. Confidence-building measures, like announcing the size of one's nuclear arsenal, could be taken by China, as a cost-free enticement to others to do likewise.

2) Tackling Russian Nuclear 'Leakage'

Despite being one of the major proliferation threats, not nearly enough has been done. Most states have been content to let the US bear the major burden of tackling this legacy of the cold war despite the fact that many states were allied with one side or other during it and received benefits (and incurred costs) from having been involved. The fact that European Union has not been more closely involved is surprising. Since the United States obviously regards its assistance programmes with Russia as an investment in its security, it is hard to see why others, particularly the other nuclear weapon states, do not think the same way. Even at the cost of \$US100,000 per warhead, the total cost for the irreversible dismantlement of 10,000 Russian warheads over five years would only be \$10 billion.¹⁷ The United Nations, with sensitivity, could act as a catalyst in helping obtain further assistance for Russia, as it does in the case of other urgent international crises.

3) The Verification Challenge

There is a need for effective and efficient verification regimes to ensure compliance with total bans on weapons of mass destruction. Even strong supporters of global bans will still require the reassurance of universal compliance that verification can provide. Whether and how verification can provide sufficient confidence remains controversial, as the recent ratification debate over the CTBT in the US Senate demonstrated. Valuable lessons for future arms control and disarmament initiatives, including in the nuclear area, have been and will continue to be learned from the experiences of the new, unparalleled multilateral disarmament verification organisations. Yet, currently the vast bulk of research on verification and monitoring occurs in the United States. The burden needs to be spread more equally, not only because other states need to be convinced of the verifiability of disarmament agreements, but because multiple efforts are likely to produce innovative verification techniques and technologies. The UK and medium powers like Australia, Canada, Finland and Sweden have all made powerful contributions to verification regimes in

the nuclear testing and chemical weapons fields. The United Nations could also play a role by boosting its verification research capabilities.

4) The Compliance Lacuna

The international community needs to give much greater attention to the range of responses that are available if non-compliance with disarmament and non-proliferation agreements is detected and proven. The great lacuna in multilateral agreements is the lack of a reference to penalties. All is left vaguely to the will of the Security Council, which may or may not be forthcoming. Negotiators should in future consider drafting penalty clauses into treaties which set out in advance the action that will be taken when non-compliance is determined by the relevant treaty authority. The advent of the International Criminal Court should make it easier for individuals who violate international agreements and government leaders and officials responsible for state violations to be prosecuted. The passing of domestic legislation to incorporate international law into domestic law should also be explicitly required in future arms control treaties and each state should establish extra-territorial jurisdiction over nationals engaged in banned activities outside their country of origin.

6) Reviving The Role of the United Nations

The UN's need to act and be seen to act impartially and objectively has both comparative advantages and disadvantages in non-proliferation and disarmament matters. Its comparative disadvantage is that it cannot easily lobby or hector individual governments to move in a particular policy direction, nor can it pursue initiatives that are way ahead of the views of the majority or the most influential of its member states. It has, for instance, no role in pressing legislators to vote for ratification of a particular treaty, or in pressuring a particular state to engage in disarmament negotiations. Unlike in other areas, such as the resolution of armed conflicts between its member states or tackling humanitarian crises, the UN's ability to intervene is severely constrained. Its role in bilateral nuclear arms control is essentially non-existent.

On the other hand, the UN can use its impartiality and objectivity to good effect: in acting as an information resource for the global community on proliferation and disarmament problems and solutions; in facilitating creative thinking on non-proliferation and disarmament problems; in assisting in the negotiation of agreements; and in helping to effectively and efficiently implement agreements once they have been negotiated. Yet the UN's role in all three areas has been lacklustre due to a lack of resources and creativity. Both of these should be addressable.

The UN Secretariat's role has been hampered by limited staff and resources—including at one stage the severe downgrading of disarmament as a major focus of the UN's work, leading to a loss of collective memory and momentum. Fortunately, the Department of Disarmament Affairs has been restored, but it still lacks the resources and staff to perform the role that it should have as a repository of information and data on proliferation and disarmament issues and as a catalyst for forward thinking. There is no inherent reason why, given the right financial support, the UN should not be able to take advantage of the communications revolution, including falling information

technology costs, to establish something like the Nuclear Proliferation Data Exploitation Center recently announced by the US government.

While intended to shift the focus of disarmament efforts to the world's regions, the performance of the Regional Disarmament Centres has been mixed at best. Located in remote locations, with little or no staff and resources, they were a brave experiment which has largely played itself out. They should be scrapped in favour of more innovative regional initiatives utilizing modern information technology to create virtual regional webs rather than static centres.

The UN Institute for Disarmament Research (UNIDIR) has been treated as a pauper, required to beg governments for funding. It is impossible to conduct sustained, long-term, high-quality research under such conditions. It should be given regular UN budgetary support and connected to a proper academic institution, rather than being left adrift in a UN bureaucratic structure. The UN University would appear to be an appropriate partner. The UN leadership should be involved in high-level funding approaches to private foundations for support for UNIDIR. UNIDIR should also be given responsibility for the UN Disarmament Fellowship Programme and include training within its mandate, perhaps in co-operation with UNITAR. Lack of capacity in developing country delegations to disarmament discussions can have major repercussions for reaching agreements.

The UN also needs to revise its methods of working with non-governmental organisations and other elements of civil society in the disarmament and non-proliferation fields. Often UN officials treat NGOs with as much disdain and suspicion as some governments do, despite the fact that the UN relies on NGOs for support, information and assistance. The UN-civil society partnership can be a powerful one when handled properly, as evidenced in UN peace operations.

The UN Disarmament Commission (UNDC) appears by all accounts to be a waste of time and resources. It has produced very little beyond regurgitation of First Committee policy pronouncements and lowest common denominator texts. It has often failed to complete the simplest of assignments due to its consensus rule. It should be abolished and the financial savings diverted to UNIDIR to conduct expert studies.

Constant demands for reform of the Conference on Disarmament have had little effect except to increase its membership, thereby rendering the single multilateral disarmament body even more unworkable. Urgent reforms should include abolishing the bizarre procedure whereby the agenda and establishment of subsidiary bodies and their mandates is reviewed at the beginning of every year. This simply gives an opening for extraneous political issues of the day to be injected by those intent on derailing real progress. A second major reform would be to scrap the consensus rule for both commencing negotiations and concluding them. The CTBT was a poor example in this respect: not only did India prevent the CD referring to the UN General Assembly a treaty which was otherwise unanimously agreed, but the treaty itself contains tortuous entry-into-force provisions which permit treaty opponents to sabotage it. There would appear to be no reason why the model of the Landmine Convention should not be followed: states interested in concluding a treaty could do so without a small number of states holding them to ransom. It would be up to the

negotiating states to decide if they were willing to entail the risk that major states may not wish to sign or ratify their treaty. Those states which do not approve the final draft of a treaty (sometimes even after their concerns have been taken into account), simply do not have to join it. If the CD does not reform itself, it seems inevitable that 'coalitions of the willing' will be increasingly tempted to negotiate treaties themselves.

7) New Partnerships

State-centrism still predominates in the non-proliferation and disarmament fields. Although this is understandable, since matters of state security and high politics are involved, this should not mean the exclusion of other players. Most governments remain impervious to the valuable role that civil society, including non-governmental organisations, academics and informed publics can play. Non-governmental organisations are still often kept at arms length from official delegations at negotiating meetings, review conferences and expert colloquia. Only a few countries have followed Canada's lead in regularly including NGO representatives in official delegations. Many developing country delegations appear fearful of NGOs, despite the assistance such groups could render their under-resourced personnel.

The contrast with the Climate Change Convention community, where NGOs and governments have developed a useful partnership, is stark. The negotiation of the Landmine Convention was a breakthrough in the disarmament field in this regard. A consortium of non-governmental organisations, the International Campaign to Ban Landmines (ICBL), was instrumental in advocating the treaty, helping negotiate it and subsequently helping monitor its implementation through an NGO consortium called Landmine Monitor. A similar phenomenon has occurred in a related field, namely the successful negotiation of the statute for the International Criminal Court.

Conclusion

Despite half a century of efforts to rid the world of the three categories of weapons of mass destruction, the setbacks have outweighed the victories. While total numbers and megatonnage of nuclear weapons have waxed and waned and the number of nuclear weapon states has reached nowhere near the feared twenty, absurdly large nuclear weapon arsenals, still deployed on hair-trigger alert, could destroy humanity either directly or through nuclear winter (a concept that seems quaintly outmoded but remains nonetheless all too possible). Scandalously, this is at a time when the ideological conflicts which so stultified international relations for most of the last century have vanished and substantive differences between the major world powers are not a matter of life and death. Chemical and biological weapons have been more readily kept at bay, but still promise mass destruction unless treaties are implemented, effectively verified and applied universally.

At the outset of this new millennium what is required above all is a dramatic new initiative to break the gridlock that has developed between nuclear disarmament, ballistic missile defences and nuclear non-proliferation. Only the United States, the predominant world power, is in a position to take a unilateral leap or propose a package deal to move the process forward. Other challenges must also be met, including preventing 'nuclear leakage' from Russia and dealing with the few states

that flaunt international opinion and non-proliferation norms in one or more of the categories of weapons mass destruction—India, Iraq, Israel, Pakistan and North Korea. More generally, greater attention must be devoted to verification and compliance to ensure that they do not become brakes on disarmament efforts, but rather provide the necessary confidence for proceeding. Finally, the United Nations must face up honestly to its shortcomings in the nonproliferation and disarmament field and harness the new creative and community-building possibilities of globalization to advance the cause.

Notes

¹ Managed by the International Atomic Energy Agency (IAEA), the Organization for the Prohibition of Chemical Weapons (OPCW), the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) and, perhaps, an Organization for the Prohibition of Biological Weapons (OPBW).

² Thomas B. Cochran, Robert S. Norris and Christopher E. Paine, 'Progress in Nuclear Weapons Reductions' in Joseph Rotblat (ed.), *Nuclear Weapons: The Road to Zero* (Westview Press: Boulder, CO, 1999), p. 158.

³ It appeared in mid-April 2000 that the Duma was about to ratify START II.

⁴ Cochran *et al*, p. 177.

⁵ Igor Khripunov, 'Russia at the Crossroads of Arms Control', *The Monitor: Nonproliferation, Demilitarization, and Arms Control*, vol. 5, no. 1-2, Winter-Spring 1999, p. 16.

⁶ It recently tested a new ICBM, the Dong Feng (DF)-31 (*Arms Control Today*, July/August 1999, p. 27).

⁷ Cochran *et al*, pp. 172-173.

⁸ David Albright, Frans Berkhout, and William Walker, *Plutonium and Highly Enriched Uranium 1996. World Inventories, Capabilities and Policies*, Oxford University Press for SIPRI, Oxford, 1997, p. 262. See also Avner Cohen, *Israel and the Bomb*, Columbia University Press, New York, 1998.

⁹ Except for one routine inspection by the IAEA of Iraq's declared nuclear facilities in January 2000.

¹⁰ See Model Nuclear Weapons Convention attached to *Security and Survival: The Case for a Nuclear Weapons Convention*, International Association for Lawyers Against Nuclear Arms (IALANA), International Network of Engineers and Scientists Against Proliferation (INESAP) and International Physicians for the Prevention of Nuclear War (IPPNW), Mass., 1999.

¹¹ For details see Stephen Pullinger, 'The Emerging Verification Protocol', Briefing Paper no. 2, Preventing Deliberate Disease series, International Security Information Service (ISIS), London, July 1999.

¹² For details see Ian Anthony and Jean Pascal Zanders, 'Multilateral weapon and technology export controls' in *SIPRI Yearbook 1999: Armaments, Disarmament and International Security*, Oxford University Press for SIPRI, Oxford, 1999, pp. 692-700.

¹³ A plausible definition of globalization is 'an increase in the amount and speed of interstate phenomena' (Robert A. Denemark, 'World System History: From Traditional International Politics to the Study of Global Relations', *International Studies Review* Special Issue, 'Prospects for International Relations: Conjectures about the Next Millennium', International Studies Association, vol. 1, 1999, p. 49).

¹⁴ *Arms Control Today*, July/August 1999, p. 25.

¹⁵ Stansfield Turner, 'Clinton Can Cut Nuclear Arms Without a Treaty', *International Herald Tribune*, 2 November 1999, p. 8.

¹⁶ *Jump-START: Taking the Initiative to Reduce Post-Cold War Nuclear Dangers*, Committee on Nuclear Policy, Washington DC, Feb. 1999.

¹⁷ Oleg Bukharin and Kenneth Luongo, 'US-Russian Warhead Dismantlement Transparency: The Status, Problems, and Proposals', Princeton University Center for Energy and Environmental Studies (PU/CEES) Report no. 314, April 1999, p. 11.