

# Introduction

## A call to arms control

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### I. A widening window of opportunity

As this edition of the SIPRI Yearbook so amply shows, the world faces some very difficult security challenges in the years ahead, not least regarding a fragile security environment in certain regions, continuing build-ups of conventional and unconventional arms around the world, and uneven progress for arms control, non-proliferation and disarmament. Moreover, numerous structural challenges—including tightened supplies of energy and other natural resources; a lack of consensus on global governance of security challenges; inadequate regional capacity for conflict management, peacekeeping, and post-conflict reconstruction and reconciliation; weakening state structures; and the fragmentation of violence—will continue to undermine security in societies around the globe and especially in the developing world.

However, there are some potentially brighter spots on the horizon. The next 12 months promise the beginnings of the first serious discussions of arms control and disarmament in more than a decade. This fortuitous opportunity emerges from a broadening consensus around the world—both among women and men on the street and among elites—that more serious and effective arms control and disarmament measures should be implemented.

This would not be the first time in the post-World War II era that arms control and disarmament have risen to the forefront of international consciousness. But in recent years two critical trends have converged in ways that raise the arms control policy debate to new and interesting levels. One trend points to increasing concerns about, threats to and the potential collapse of long-standing agreements and understandings on arms control and non-proliferation. The other, more encouraging, trend points to new and emergent opportunities for more effective arms control, non-proliferation and disarmament steps in the coming years. On the one hand, these developments—both threatening and encouraging—have begun to energize some long-standing, but flagging, arms control and disarmament efforts around the world. On the other hand, these efforts face powerful and continuing obstacles and will demand redoubled energies to take fuller advantage of a widening window of opportunity.

Looking ahead, it is becoming clearer than ever that the next one to two years will see far more high-level discussion and debate, both globally and in leading capitals around the world, on the merits of arms control and disarmament. Less clear at this stage is how successful this renewed effort will be.

## II. Growing concerns

At least four important areas of concern regarding arms control and disarmament have gained prominence in recent years to drive more progressive and urgent thinking on these issues.

### **The diffusion of sensitive goods, technologies and know-how**

There is intensifying awareness around the world of the need to balance the obvious advantages of globalization with its increasingly apparent disadvantages. Regarding arms control, this is demonstrated by a growing need to balance the benefits of greater and more diffuse flows of people, goods, technologies and knowledge—including those relevant to developing weapons of mass destruction (WMD)—with a greater ability to monitor and prevent their misuse towards illicit and violent ends.

This conundrum applies across a widening spectrum of current and emergent technologies—such as nuclear technologies, but especially in the biological sciences, including genetic engineering, synthetic biology and nanotechnologies—and, as discussed in this volume, raises new and vexing questions about the appropriate balance between the greater diffusion and the appropriate control of such technological advancements.<sup>1</sup> This is not only a ‘North–South’ problem, or a contest between the world’s ‘haves’ and ‘have nots’. Within the developed world there are also difficult contradictions and concerns between those who wish to use such technologies for legitimate professional purposes—scientists, researchers and medical personnel, for example—and national authorities concerned with domestic security, emergency preparedness and law enforcement which may wish to see greater safety and security restrictions placed on their use.

More specifically, this concern relates to the growing demands that, for the benefit of humankind, both mature and emergent technologies should be spread more widely and equitably in order to expand access to energy, health, education and other public goods. Perhaps the best understood example of this challenge concerns the development and diffusion of nuclear technology.

On the one hand, the demand for nuclear energy seems to be on the rise. Energy demand on the whole continues to rise as the world’s leading economies continue to grow and as newly burgeoning economies, such as China, India, and Russia, emerge more prominently. As the world’s demand for and dependence on carbon-based energy sources has an impact on and exacerbates climate change, and as the price of oil edged over \$100 a barrel in early 2008, there is a glaring need for energy alternatives. Hence, there is a growing sense of a nuclear energy ‘renaissance’ across the globe, and particularly in the developing world. Moreover, nuclear technology also provides numerous cur-

<sup>1</sup> See chapters 8, 9 and 11 in this volume.

rent and potential future benefits in a wide range of medical, health and scientific fields.

On the other hand, nuclear technology and materials—designed for both military and civilian purposes—pose considerable risks. Russia and the United States—which, as documented in this volume, together account for more than 90 per cent of the approximately 10 200 deployed nuclear weapons in the world today<sup>2</sup>—continue to maintain thousands of nuclear weapons capable of being launched against each other and virtually any corner of the globe in a matter of minutes. Even if the possibility of an intentional nuclear exchange among such states is remote, the accidental or unauthorized use of nuclear weapons and, in some cases, their vulnerability to diversion and theft, remains an ongoing and dangerous problem. The political instability witnessed in Pakistan in 2007 raised questions about the safety and security of nuclear arsenals.

Having access to certain parts of the nuclear fuel cycle, particularly uranium enrichment and spent fuel reprocessing technologies, also provides the means to pursue a nuclear weapon programme: North Korea's detonation of a nuclear device in 2006 and suspicions about Iran's nuclear intentions are only the most current cases in point. Meanwhile, concerns are increasing that poorly protected fissile and other radioactive materials will ultimately be malignly used—perhaps in a nuclear explosive device or radiological weapon—not by states, but in a terrorist act with catastrophic consequences. In addition, both civilian and military nuclear facilities pose potential risks resulting from deliberate attack or an accident. The risk of such an accident is not inherently less in the military than the civilian sector and may actually be greater given that military facilities are not subject to international safeguards regimes.

These challenges concern not only nuclear-related technologies but apply also to current and emergent technologies in other fields such as the biosciences, chemistry and genetics. Chemical and biological technologies and capacities are far more widespread than their nuclear counterparts, but far less attention has been given to grappling with the threats that this situation may pose. With these challenges in mind, many argue that, rather than allowing for continuing and growing access to nuclear and other potentially dangerous technologies—whether WMD-related, dual-use or otherwise sensitive—much more needs to be done to manage their role and availability and prevent their illicit, accidental or unauthorized use.

### **Complex conventional conflict and increased conventional spending**

Conventional armed conflict in the world is also taking on a far more complex and intractable character than generally presumed. As discussed in the chapter on armed conflicts, forms of violence that are more diversified and fragmented—and hence more difficult to address and resolve—are becoming a greater threat to human security. While the number of state-based major armed

<sup>2</sup> See appendix 8A in this volume.

conflicts has fallen from 20 to 14 over the past decade, the number of non-state conflicts is both higher, at 21 in 2006, and varies more erratically.<sup>3</sup>

In addition, the world as a whole continues to devote larger and larger sums of money to military spending. As discussed and documented in the chapter on military expenditure, military spending globally was approximately \$1339 billion in 2007, an increase of 6 per cent over 2006; over the 10-year period 1998–2007, global military spending increased by 45 per cent in real terms. At the level of individual countries and subregions, the increases are even more striking. Over the period 1998–2007, military spending in Eastern Europe (Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia and Ukraine) increased by 162 per cent, with Russia accounting for 61 per cent of that increase. North America increased its military spending by 63 per cent over that same period, dominated by increases in US military spending; the USA alone accounted for 45 per cent of the world's total military spending in 2007.<sup>4</sup>

Similarly, arms production and international arms transfers are also on the rise, as detailed in the chapters on these activities.<sup>5</sup> The arms sales of the SIPRI Top 100 arms-producing companies (outside China) in 2006 were \$315 billion, an increase of \$23 billion, or 8 per cent, over the arms sales of the Top 100 for 2005. The volume of transfers of major conventional weapons over the period 2003–2007 was 7 per cent higher than over the period 2002–2006.

### **Weakened institutions**

A third concern relates to the mechanisms, both currently in place and under consideration, which are intended to address the kinds of problems outlined above. The 1968 Non-Proliferation Treaty (NPT) is a good case in point.<sup>6</sup> The NPT faces some serious questions over the next two years in the run-up to its next quinquennial review conference, in 2010. The previous NPT review conference, in 2005, for a variety of reasons ended in deadlock, resulting in no substantive recommendations or decisions for further promoting the operations and aims of the treaty.<sup>7</sup> As preparations are under way for the 2010 review conference, many observers question the ability of the NPT and its related inspection regimes to successfully address the treaty's long-term goals of non-proliferation and disarmament. At a minimum, some argue, these mutually reinforcing goals cannot be achieved within the confines of the NPT when several nuclear-armed states—such as India, Israel and Pakistan—are not parties to the treaty and when North Korea, which is believed to have detonated a nuclear device in 2006, has suspended its membership.

<sup>3</sup> See appendix 2A in this volume.

<sup>4</sup> See chapter 5 in this volume.

<sup>5</sup> See chapters 6 and 7 in this volume.

<sup>6</sup> For a summary of the 1968 Treaty on the Non-Proliferation of Nuclear Weapons see annex A in this volume.

<sup>7</sup> See Kile, S. N., 'Nuclear arms control and non-proliferation', *SIPRI Yearbook 2006: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2006), pp. 608–18.

As described in the chapters on nuclear and conventional arms control, other major arms control and disarmament mechanisms—such as the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty), the 1991 Strategic Arms Reduction Treaty (START I Treaty), the 1996 Comprehensive Nuclear Test-Ban Treaty (CTBT) and a proposed fissile material cut-off treaty—are all faltering or making little progress.<sup>8</sup> Moreover, these arms control and disarmament treaties and agreements aim to bring states within their ambit, when the greatest threat of WMD use—not to mention growing threats to human security from conventionally armed actors—may well emanate from non-state actors, such as terrorist or criminal groups.

### **The lack of consensus among major actors**

A fourth set of concerns arises among and within states in the international system—the very players that are currently in the best position to counteract and alleviate the growing concerns noted above. The standing of the USA in the international system is at a low ebb, weakening its ability to mobilize support and forge consensus on matters of global security. In its last year, and with a sceptical approach to arms control, the US Administration of President George W. Bush is unlikely to take a more proactive stance on arms control and disarmament in any event. Moreover, as developed in this volume, rather than de-emphasizing the role of nuclear weapons, those countries possessing a nuclear weapon capability—the USA, Russia, the United Kingdom, France, China, India, Pakistan, Israel and North Korea—continue to place a strong reliance on these weapons in their national security strategies.<sup>9</sup>

In addition—as discussed in the chapter on Euro-Atlantic security—an undercurrent of mistrust and estrangement continues to characterize security relations among many of the world's major powers on issues of arms control and disarmament—including between Russia and the USA, between China and the USA, and between Russia and Western Europe.<sup>10</sup> Even within well-established multilateral institutions among 'like-minded' countries, such as the European Union (EU) and the North Atlantic Treaty Organization (NATO), stark differences exist among member states over questions of the future role of nuclear weapons, the deployment of strategic defences and the desirability of disarmament. Many non-nuclear weapon states are highly sceptical of the sincerity of nuclear weapon states' pursuit of disarmament according to their NPT commitments, and will understandably assume a 'wait-and-see' approach towards new disarmament and non-proliferation initiatives.

These points all add up to a difficult and ominous situation whereby potential threats—such as accidental, unauthorized or intentional use of nuclear and other dangerous weapons and technologies—increase, while the means and

<sup>8</sup> See chapters 8 and 10 in this volume. For summaries of the START I Treaty, the CFE Treaty and the CTBT see annex A in this volume.

<sup>9</sup> See appendix 8A in this volume.

<sup>10</sup> See chapter 1 in this volume.

mechanisms to prevent or diminish the likelihood of such a catastrophic event face growing challenges.

### III. Emerging opportunities

In response to these challenges, there is growing urgency across the globe to bring new life and a mainstream momentum to arms control. This seems particularly promising in the near term in relation to nuclear arms control and disarmament. Two important and encouraging developments should be noted and strengthened in this regard.

#### **A new political space**

First, there is a growing expectation that governments will actually find it politically possible to take concrete action on the arms control and disarmament front. Much of that anticipation reflects a political changing of the guard around the world. There is new leadership in the United Nations and newly elected leaders in France, Germany, Japan, Russia and the UK. There will be a new US President in 2009. The EU, which has been developing a more coherent position on arms control since the early-2000s, expects to emerge as a greater political force on the global scene in the coming years. Even in China, leaders installed in 2002 are now solidifying their confidence and position in their second term in office. In major surveys, citizens throughout the world strongly support verifiable steps towards a world free of nuclear weapons.<sup>11</sup> However, progress remains a political challenge for governments around the globe, despite the widespread sentiments in favour of disarmament amongst their citizenries. Responding to the real threat posed by nuclear weapons, and building on the growing public concern with the threat, these leaders, more so than their predecessors, can take action in the increasingly favourable political space around disarmament issues.

Some interesting and new political space around arms control has been generated by high-profile calls for disarmament coming out of the USA and other Western powers. This includes the two *Wall Street Journal* opinion pieces by George Schultz, Sam Nunn, Henry Kissinger and William Perry, who in January 2007 and again in January 2008 forcefully called for steps aimed at eliminating nuclear weapons.<sup>12</sup> In 2007 US Democratic Party presidential hopeful Barack Obama said that as president he would cooperate with Russia to ‘dramatically reduce the stockpiles of our nuclear weapons’ and ‘update and scale back our dangerously outdated Cold War nuclear postures and de-emphasize the role of nuclear weapons’, and that the USA would seek

<sup>11</sup> See e.g. Angus Reid Strategies, *Global Public Opinion on Nuclear Weapons* (Simons Foundation: New York, 2007), <<http://www.angusreidstrategies.com/index.cfm?page=6>>.

<sup>12</sup> Schultz, G. P. et al., ‘A world free of nuclear weapons’, *Wall Street Journal*, 4 Jan. 2007; and Schultz, G. P. et al., ‘Toward a nuclear-free world’, *Wall Street Journal*, 15 Jan. 2008.

‘a world in which there are no nuclear weapons’.<sup>13</sup> US Republican Party presidential candidate John McCain said in early 2008, ‘We should work to reduce nuclear arsenals all around the world, starting with our own. . . . We do not need all the weapons currently in our arsenal. The United States should lead a global effort at nuclear disarmament consistent with our vital interests and the cause of peace.’<sup>14</sup>

In the UK, a January 2008 editorial in *The Guardian* called on the UK to ‘lead the way’ in getting rid of nuclear weapons,<sup>15</sup> and in 2007 the British Foreign Secretary, Margaret Beckett, called for both ‘vision’ and ‘action’ which could lead to ‘a world free of nuclear weapons’.<sup>16</sup> In another high-profile step in favour of arms control, Warren Buffett, one of the world’s wealthiest entrepreneurs and philanthropists, donated \$50 million—which was then matched by the US Government—in 2006 to promote progress towards creation of a multilateral nuclear fuel bank under the auspices of the International Atomic Energy Agency.<sup>17</sup> A range of other high-level appeals and activities are planned for 2008 and 2009 in the USA, in Europe and around the world, promising to keep issues of arms control and disarmament politically front and centre.<sup>18</sup>

### Advances in technological tools

Second, there are also encouraging developments on the technical front, offering greater certainty on questions of monitoring and verification for arms control treaties and other forms of arms control agreements. For example, advances in nuclear forensics analysis—a tool most often associated with helping to prevent illicit trafficking of nuclear materials—now hold out greater promise of strengthening the monitoring and verification regimes of the NPT, the CTBT (when it enters into force) and a prospective fissile material cut-off treaty, not to mention its uses in investigations following nuclear or radiological attacks.<sup>19</sup> The monitoring system put in place under the auspices of the CTBT was able to help detect and assess the low-level nuclear explo-

<sup>13</sup> Obama, B., ‘A new beginning’, Remarks made at DePaul University, Chicago, Ill., 2 Oct. 2007, <[http://www.barackobama.com/2007/10/02/remarks\\_of\\_senator\\_barack\\_obam\\_27.php](http://www.barackobama.com/2007/10/02/remarks_of_senator_barack_obam_27.php)>; and Obama, B., ‘Renewing American leadership’, *Foreign Affairs*, vol. 86, no. 4 (July/Aug. 2007).

<sup>14</sup> McCain, J., Remarks to the Los Angeles World Affairs Council, 26 Mar. 2008, <<http://www.johnmccain.com/Informing/News/Speeches/>>.

<sup>15</sup> ‘Disarmament still matters’, *The Guardian*, 7 Jan. 2008.

<sup>16</sup> Beckett, M., ‘A world free of nuclear weapons?’, Keynote address, Carnegie International Nonproliferation Conference, Washington, DC, 25 June 2007, <<http://www.carnegieendowment.org/events/index.cfm?fa=eventDetail&id=1004>>.

<sup>17</sup> International Atomic Energy Agency (IAEA), ‘IAEA welcomes US contribution of \$50 million to Nuclear Fuel Bank’, News release, 9 Jan. 2008, <[http://www.iaea.org/NewsCenter/News/2008/us\\_donation.html](http://www.iaea.org/NewsCenter/News/2008/us_donation.html)>.

<sup>18</sup> E.g. George Schultz, a former US Secretary of State, leads the work of the ‘Hoover Plan’ and Bruce Blair and the World Security Institute are promoting a ‘Compact for the Elimination of Nuclear Weapons’. Hoover Institution, ‘No more nukes’, *Issues in Focus*, 24 Oct. 2007, <<http://www.hoover.org/research/focusonissues/focus/10609912.html>>.

<sup>19</sup> On nuclear forensic analysis see appendix 8D in this volume.



sion conducted by North Korea in 2006. This and the recent review by US scientists of the past decade's developments in CTBT verification both suggest that the CTBT is effectively verifiable by available technologies.<sup>20</sup> As discussed in more detail in the chapter on chemical and biological weapons, another field of technological promise is the use of microbial forensics for biological weapon arms control.<sup>21</sup>

In another development, considerable scientific research and policy discussion is under way to determine the feasibility and effectiveness of an international, multilateral uranium enrichment facility and nuclear fuel bank as a means to prevent the diversion to military purposes of enriched uranium meant for civilian use, while ensuring the security of fuel supply. Proliferation-resistant nuclear fuel cycle technologies are also under active consideration.<sup>22</sup>

## IV. Much work to be done

### Current and future steps

Even as the convergence of threatening and encouraging developments opens new opportunities for arms control, much work will need to be done. To begin, it is well worth noting that, despite many challenges, arms control has not lain dormant and continues to make important progress, albeit out of day-to-day headlines. For example, as of the end of 2007, 159 states had ratified or acceded to the 1972 Biological and Toxin Weapons Convention (BTWC) and 183 states had ratified or acceded to the 1993 Chemical Weapons Convention (CWC).<sup>23</sup> Similarly, regarding conventional weapons, encouraging progress has been made in recent years in addressing the problem of 'inhumane weapons' such as landmines and the 'Oslo process' on cluster munitions, launched in 2006, has also taken important steps forward: more than 80 states have joined the process, with the stated aim of finalizing a treaty to ban cluster munitions by 2008.<sup>24</sup>

Looking ahead, the effective implementation—and possibly the survival—of the NPT will demand a demonstrable recommitment by all parties to the treaty's central bargain. This means earnest and transparent disarmament steps by nuclear weapon states, especially and initially through unilateral and bilateral measures by Russia and the USA, but also through greater positive

<sup>20</sup> Jeanloz, R., 'Comprehensive nuclear test-ban treaty and the US security', eds G. P. Schultz, S. D. Drell and J. E. Goodby, *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons* (Hoover Institution Press: Stanford, Calif., 2008).

<sup>21</sup> See chapter 9 in this volume.

<sup>22</sup> International Atomic Energy Agency (IAEA), *Multilateral Approaches to the Nuclear Fuel Cycle: Expert Group Report to the Director General of the International Atomic Energy Agency*, INF/CIRC/640 (IAEA: Vienna, 22 Feb. 2005). See also Fedchenko, V., 'Multilateral control of the nuclear fuel cycle', *SIPRI Yearbook 2006* (note 7), pp. 698–704; and Forden, G. and Thomson, J., 'Iran as a pioneer case for multilateral nuclear arrangements', SIPRI Special Research Report, 24 May 2007, <<http://www.sipri.org/contents/expcon/iranmna.html>>.

<sup>23</sup> See annex A in this volume for full list of signatories to the BTWC and the CWC.

<sup>24</sup> See chapter 10 in this volume.



involvement of non-nuclear middle-ranking powers. It also requires strengthened protocols to allow the dissemination of civil nuclear technologies but prevent additional states from acquiring nuclear weapons. Another stalemate at the 2010 NPT Review Conference would further undermine the security of the international community.

Furthermore, political leaders need to know of the technologies developed over the past decade which enhance the ability to verify compliance with and enforce arms control and disarmament agreements. Many of the criticisms of arms control put forward in the late-1990s and early-2000s were valid, particularly where effective compliance and verification measures were lacking. 'Arms control' alone is not enough; there needs also to be a focus on 'arming the controllers' with the tools necessary to ensure verification and enforcement and to substantively demonstrate the confidence that political leaders should have in these tools. Such measures will be critical to gaining the technical confidence and political will of nuclear and non-nuclear weapon states alike to genuinely pursue arms control, non-proliferation and disarmament.

Understandably, much of the focus on disarmament will be on specific steps that the five NPT-defined nuclear weapon states should take to reduce the role of nuclear weapons in their overall security postures. The times call for governments, and especially nuclear weapon states, to invest anew in beginning negotiations for a fissile material cut-off treaty. The Comprehensive Test Ban Treaty now has 35 of the necessary 44 ratifications for entry into force. France, Russia and the UK have ratified the CTBT; ratification by China and the USA will be critical to seeing the treaty move forward.<sup>25</sup>

Disarmament by the two principal nuclear weapon powers—Russia and the USA—will be especially important, and these two states should take a number of critical steps forward in the near term. These include ensuring the smooth continuation of the 1991 START I Treaty, which is set to expire in December 2009; a decision by the two parties to extend it for five more years should be taken by December 2008. The coming year should also see forward movement in the realization of goals of the 2002 Russian–US Treaty on Strategic Offensive Reductions (SORT), which envisages the number of deployed strategic nuclear warheads being reduced to between 1700 and 2200 on each side by 2012.

Additional disarmament-related confidence- and security-building measures should be negotiated between Russia and the USA in the coming years, including reducing the threat of unintentional, accidental or unauthorized nuclear attacks, accounting for and securing nuclear weapons and related-materials, accounting for and phasing out forward-deployed short-range nuclear weapons across Europe, and finding common ground on the deployment of missile defences.<sup>26</sup> These important objectives will need to be realized

<sup>25</sup> For a complete list of signatories and ratifications of the CTBT as of 1 Jan. 2008 see annex A in this volume.

<sup>26</sup> See e.g. Drell, S. D., 'Oslo talk', Opening keynote address to the conference on Achieving the Vision of a World Free of Nuclear Weapons, Oslo, 26 Feb. 2008, <<http://disarmament.nrpa.no/>>; Blair, B. G., 'De-alerting nuclear forces' and Gottemoeller, R., 'Eliminating short-range nuclear weapons

in a way that is transparent and verifiable, not only to reassure the two parties to the treaty, but also to reassure the rest of the international community, and to highlight the fact that Russia and the USA comply with their NPT obligations in addition to meeting more narrow bilateral interests in confidence- and security-building between themselves.

However, a broader, global effort will also be needed which includes but reaches beyond Russia and the USA, which pulls in both nuclear and non-nuclear weapon states, and which—very importantly—firmly stakes out expansive, mainstream common ground across political divides of right and left, ‘doves’ and ‘hawks’, nationalists and internationalists, hope and fear. Given the threats that have emerged in the past decade, there is a clear case to be made for the merits of arms control and disarmament on realistic, hard-nosed, national security grounds, in addition to normative, moral and legal grounds. In this regard, there is a need to continue and reinvigorate investment in securing the existing but poorly protected stocks of fissile and other radioactive material in the civilian sector around the world.

This broad consensus has to be built across key countries as well as across key constituencies. The positions of such countries as China, India, Iran, Israel, North Korea and Pakistan must be sought and built in to an emerging global consensus on arms control and disarmament. Forward movement with a fissile material cut-off treaty would be a useful mechanism by which to draw key non-NPT states such as India, Israel, and Pakistan into the non-proliferation regime.

Senior military leaders and their staffs will need to be consulted and their views included in this arms control and disarmament process. Governmental and non-governmental scientists will need to be integrated into the consensus-building process as well. Think tanks and other non-governmental organizations will need to play a constructive role—especially when official government relations are constrained from doing so—in generating the kind of awareness raising, information sharing and consensus building that will realize, sustain and verify concrete disarmament results.

### **Caveats and looking ahead**

We are entering an important period for arms control, and there are a number of reasons to see a widening window of opportunity for important gains on this front. However, three caveats are in order which should cast a more realistic light on coming prospects for arms control.

First, in many respects, the priorities of the next US Administration will play a critical role in shaping the progress of arms control. This is true not only in the USA’s approach to bilateral and multilateral arms control discussions, but also in its overall approach in the years ahead to security building at the global and regional levels. A rather clear path for arms control and

disarmament was outlined and initially followed over the period 1995–2000. For most of the time since, the USA chose not to move down this path, or to divert from it all together. Today, there is some tendency to return to a path of diplomacy and negotiation, including agreements related to arms control and non-proliferation. That trend will probably continue and could increase under the next US president and Congress. But narrowly defined, traditional arms control—including new, lengthily negotiated treaties—will probably not be an uppermost priority in the first years of the new presidency. Other priorities on the international security agenda—including global financial stability, a framework of rules for world trade, climate issues, energy and other resource policy, and infectious diseases<sup>27</sup>—will be higher priorities than some traditional security concerns. Even among the ‘harder’ security issues it is not clear that arms control would be a higher priority than counterterrorism, Iraq, Afghanistan, other regional stability matters and reforms in the US military. Hard-headed and strong political leadership, from both inside and outside the government, will be needed if the USA is to move again down a pragmatic path of arms control.

Second, while progress on existing and potentially new multilateral treaties might garner most international attention, these approaches should not overshadow other mechanisms which hold out good prospects in the near- to medium-term for concrete progress in arms control and disarmament. For example, important progress can be made through other mechanisms, such as the Six-Party Talks to address, among other issues, North Korea’s nuclear weapon programme. Important non-proliferation and disarmament assistance programmes, such as the 1993 Russian–US Highly Enriched Uranium Purchase Agreement, continue apace; as of September 2007, more than 300 tonnes of highly enriched uranium, equivalent to 12 600 nuclear warheads, had been converted under the agreement for use in fuel civil nuclear reactors.<sup>28</sup> The United Nations Security Council has made use of resolutions, such as Resolution 1540, to introduce arms control and non-proliferation measures related to weapons of mass destruction that member states must implement at the national level.

Finally, arms control and disarmament cannot solve all the world’s problems. Indeed, there are many challenges to global and regional security—from financial uncertainty and chaos, via resource accessibility, to climate change—where arms control may have little or no relevance. If anything, for ‘arms control’ to have greater relevance, the traditional meaning of the term should—and in many respects must—undergo some broadened redefinition. Such a broadening should encompass, at a minimum, non-treaty- and non-state-based approaches to security building which can also effectively lower the threat of unnecessary and indiscriminate violence with both conventional and non-conventional weapons, while building confidence among security actors at the international, national and sub-state levels.

<sup>27</sup> On the global surveillance of infection diseases see appendix 9A in this volume.

<sup>28</sup> See chapter 8 in this volume.

Looking ahead, it is interesting how voices from across the political spectrum are coming to recognize again the value of arms control in the face of looming threats to humankind. Yet, as the pages which follow explain, moving ahead faces tremendous obstacles. Arms control and disarmament is far more complicated today and will only become more so, particularly with the more prominent role in recent years of China, India, Russia, the EU and major European states, and the emergence of other new actors—states and non-states—that can have a strategic effect at regional and global levels. However, in the coming year, a new window of opportunity will open even wider to realize constructive progress on arms control and disarmament. It is clearly in the interest of citizens and governments alike to take pragmatic and positive steps in the right direction.