

*Global Non-Proliferation and
Counter-Terrorism:
The Role of Resolution 1540
and Its Implications*

Scenarios in which terrorists use weapons of mass destruction (WMD) have been posited for decades, but the threat and the issues involved have received new attention in the early 2000s.¹ U.S. Secretary of Defense Donald Rumsfeld has reformulated what has been popularly called the “sum of all fears” as the “nexus between weapons of mass destruction and terrorist networks,” arguing that we “really have to think very carefully about what we do as a people, and as a world, and as a society.”² This nexus—part of a more complex and interrelated composite picture of threats and vulnerabilities—and the new interdisciplinary approaches to dealing with these problems are central to the theme of this volume.³ It addresses them through the prism of a radically new initiative incorporated in United Nations Security Council Resolution (UNSCR) 1540, adopted on April 28, 2004, under the auspices of Chapter VII of the UN Charter.⁴

The proliferation of nuclear, chemical, and biological weapons was declared a threat to international peace and security at the heads of state summit of the Security Council on January 31, 1992, but this was presented in a statement, not a legally binding resolution. Both the United States and the members of the European Union see WMD proliferation as one of their main security challenges.⁵ Consensus ends there, however, because there is little agreement on how this threat can best be dealt with, especially when there are the additional concerns of terrorism and also, as recently underscored by UNSCR 1540, illicit trafficking.⁶

The May 2003 U.S.-led Proliferation Security Initiative to establish an ad hoc counter-proliferation arrangement, the December 2003 revelations of

the Khan global smuggling network for nuclear weapon–related technologies, which included end-users such as Iran, Libya, and North Korea, and growing worries about the fissures in the bio-weapons verification mechanisms have all reinforced the urgency of the need to keep WMD out of the “wrong hands.” They have underlined the fact that existing non-proliferation treaties and regimes, although important, are inadequate and not universal in their coverage.

Against this background, UNSCR 1540 was passed in April 2004, to try to address the inadequacies of existing measures and the particular challenge of controlling WMD proliferation by non-state actors. The Resolution’s primary requirements are that states:

—“refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery” (operative paragraph (OP) 1);⁷

—“adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them” (OP 2); and

—“take and enforce effective measures to establish domestic controls to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery, including by establishing appropriate controls over related materials . . . ” by developing security, physical protection, border, and export controls (OP 3).

This chapter examines the strategic context of the Resolution, its origins and affiliation with UN resolutions on counter-terrorism, and its significance and features. It goes on to look at what constitutes a non-state actor in this context and the significance of the biological and life sciences community, for which, unlike the nuclear and chemical sectors, there is no one international organization associated with implementing treaties concerning limitations or bans on these sectors’ materials for weapons purposes. The implementation of the Resolution is examined with respect to its reinforcement of the main non-proliferation treaties as well as to its additional requirements to deal with the new proliferation challenges. The chapter concludes with an initial exploratory examination of issues surrounding enforcement, not a focus of the traditional treaty regimes and for which there is a lack of global capacity given the current disparities between states in recognizing, let alone dealing with, the concerns raised by the Resolution.

The Strategic Context

One could argue that Resolution 1540 creates the foundation of a new system of global governance for dealing with the nexus of WMD proliferation, terrorism, and illicit trafficking. It is important to note that the Resolution has direct consequences for all states' domestic legal structures, imposing upon each country the requirement to criminalize WMD proliferation by and among non-state actors and to implement effective controls. This is a departure from the governance model whereby UN member states, through a long process of debate and negotiation, come to agree upon shared standards and norms. The strategic imperative of the post-9/11 security environment has dictated a swifter and less consensual model, which can be seen as among the outer tiers of a layered non-proliferation defense and which is in line with the United States' international security agenda.

The early, under-institutionalized nature of the UNSCR 1540 system (see below) was in line with what Washington wanted in the approach to the Resolution's adoption. The United States' initial approach was to avoid new bureaucracy while establishing swift and, hopefully, effective measures within a system where it could expect to have significant leverage. Lin Brooks, then the acting director of the U.S. National Nuclear Security Administration, argued in 2003 that the United States is "seeking to free [itself] from intellectual prohibitions against exploring a full range of technical options. . . . I have a bias in favor of things that might be usable."⁸

Resolution 1540 is testimony to the American view of "effective multilateralism." The Bush administration has taken a proactive approach by initiating the Proliferation Security Initiative and the Container Security Initiative as well as proposing to strengthen the role of the Nuclear Suppliers Group in monitoring nuclear exports. Washington's focus is on "coalitions of the willing," sometimes known as the "international community" or, even less concretely, the club of "civilized" nations. The *Wall Street Journal* has aptly characterized these groupings as follows: "There's no headquarters, no secretary-general, no talkfests—and, perhaps most important of all, no French or Russian veto."⁹ The Bush administration exudes a general distrust of multilateral institutions and is keen to work around them. John Bolton, America's ambassador to the UN since 2005, has made it very clear that "the idea that we could have a UN Security Council resolution or a nice international treaty is fine if you have unlimited time. We don't, not with the threats out there . . . , want to engage in an endless legal seminar."¹⁰ This means that Washington follows a policy of multilateralism "by invitation," asking others to work with the United States, follow its leadership, and trust its judgment.

During the May 2005 NPT (Nuclear Non-Proliferation Treaty) Review Conference in New York, proliferation analyst Joseph Cirincione argued that Washington's stance "reflects a deep disdain for the international agreements and institutions. Many neo-conservatives in Washington believe these multilateral meetings are worthless. Worse, they see them as a trap where global Lilliputians can tie down the American Gulliver. To move beyond these 'outmoded' instruments, President Bush pulled out of some treaties, ignored others, and gutted still others."¹¹ He further claimed that the "idea was to replace these international forums with US-centric initiatives, and to shift the focus from treaties to direct action that would eliminate certain regimes that had weapons. The war with Iraq was step one, intended to send a message to Iran and North Korea that they had better abandon their programs or face the consequences."¹²

The Origins of UNSCR 1540

Although Resolution 1540 may have come as a surprise to many, it did not come out of the blue. In September 2003, President Bush launched the idea of criminalizing WMD proliferation in his address to the UN General Assembly. He argued that

because proliferators will use any route or channel that is open to them, we need the broadest possible cooperation to stop them. Today, I ask the UN Security Council to adopt a new anti-proliferation resolution. This resolution should call on all members of the UN to criminalize the proliferation of weapons—weapons of mass destruction, to enact strict export controls consistent with international standards, and to secure any and all sensitive materials within their own borders. The United States stands ready to help any nation draft these new laws, and to assist in their enforcement.¹³

Over the course of only seven months, the United States engaged in negotiations on the Resolution, and Russia produced an initial draft, supported by other members of the Security Council. During this period, intensive diplomatic discussions took place. Numerous countries expressed concern that the proposed resolution might serve as a basis for imposing economic, and even military, sanctions against states that were deemed in "non-compliance." China supported the Resolution only after several provisions had been negotiated, including deletion of the word *interdiction* from what is now operative paragraph 10 calling on international cooperation to stem illicit trafficking.¹⁴ Another negotiating change was the insertion of "States Parties" in operative paragraph 5, enabling states not yet parties to a treaty to retain their national

security prerogative. The draft resolution was in the end co-sponsored by France, Romania, Russia, Spain, the United Kingdom, and the United States.¹⁵

Several regional groupings within the UN contested whether it was really necessary to adopt Resolution 1540 under Chapter VII. The issues involved were discussed at an open Security Council meeting on April 22, 2004, where some thirty states debated the merits of the draft resolution.¹⁶ Some members, such as Pakistan and India, questioned whether it was the role of the Security Council to prescribe legislative action by member states, and others, for example Cuba, argued that they had become subject to laws into whose drafting they had had no input. But other members, such as France, stated that the Resolution was about setting goals, leaving each state free to determine specific measures and penalties in accordance with national circumstances. The holding of an open meeting in which uncertainties and reservations were expressed was a rather unusual procedure. This indicated that the far-ranging legal implications of the Resolution required more support than might be engendered by the customary Security Council fiat.¹⁷ At the same time, however, all states have agreed in UN Charter Article 24(1) that on issues of international peace and security, the Security Council acts on their behalf, and they have also agreed to be bound by its resolutions (articles 2(5), 25, and 49).¹⁸

UNSCR 1540 does not replace the traditional forums and processes for negotiating arms control and non-proliferation treaties. Instead, it is a mechanism that supplements these traditional forums. It reinforces the norms, obligations, and legal requirements of the three main WMD treaties—the 1968 Nuclear Non-Proliferation Treaty (NPT), the 1972 Biological and Toxin Weapons Convention (BTWC), and the 1993 Chemical Weapons Convention (CWC)—as well as requires effective enforcement, which is not yet prevalent much less universal in the treaty regimes. The Resolution, acting pursuant to Chapter VII, imposes obligations on all member states without the usual caveats, buy-offs, and deals that have accompanied treaties such as the NPT and the CWC. This is a major change, because it impinges upon the Westphalian concept of state sovereignty by forcing treaty-like obligations on all states without their explicit consent although, as mentioned above, UN member states agree to adhere to Security Council resolutions.

Institutional Affiliation with Counter-Terrorism

UNSCR 1540 is clearly a non- and counter-proliferation measure, but it arises out of a family of UN resolutions dealing with counter-terrorism, and by 2006 its administrative aspects had become bundled in with these resolutions. They began with UNSCR 1267 (October 15, 1999), a resolution dealing

with individuals and groups that were financially, politically, or otherwise helping the Taliban or Al-Qaeda groups and their terrorist activities. Resolution 1267 gave rise to the Al-Qaeda and Taliban Sanctions Committee, a subsidiary body of the Security Council whose purpose is to maintain a list of individuals and entities against whom sanctions (assets freeze, travel ban, arms embargo) are applied; and promote the full application of the sanctions by States.

A subsequent resolution, UNSCR 1373 (September 28, 2001), had the most direct influence on UNSCR 1540. Quickly passed in the aftermath of the terrorist attacks on the World Trade Center and the Pentagon and the airliner's crash in Pennsylvania on September 11, 2001 (9/11), Resolution 1373 requires all UN member states to take steps to combat terrorism, with the UN serving as a focal point for building the networks and professional capacity to do so at the global level.

This was the first time since its inception in 1945 that the Security Council had invoked Chapter VII to legislate on a functional rather than usually state-specific threat to international peace and security. Its application is universal, setting global legislative requirements for all states, and functional, focusing on counter-terrorism rather than a specific threat. The scope of Resolution 1373 is more strategic than the initial shorter-term, tactical aims of Resolution 1267.¹⁹ Also, the possibility of terrorists accessing WMD was already on the minds of its drafters: it includes two paragraphs (3(a) and 4) concerned with terrorist possession of WMD and trafficking in related materials.

UNSCR 1540 emerged from those two paragraphs because UNSCR 1373 already had a heavy agenda for implementing its counter-terrorism elements. It does not follow directly from any specific terrorist incident or threat involving nuclear, biological, or chemical weapons, although its origins lie in the wake of the March–April 2003 Iraq conflict and concerns about the acquisition of nuclear, chemical, or biological weapons and related materials by terrorists and tyrannical states. In the mold of Resolution 1373, Resolution 1540 is universal and generic, and adopts many of the former resolution's committee processes to facilitate states' implementation, set out below.

The next member of the family of resolutions dealing with counter-terrorism was Resolution 1566, passed on October 8, 2004, in the wake of the September 2004 gun attack on a school in Beslan, Russia. The Resolution does not refer specifically to this incident, but it is significant for introducing further new measures to counter-terrorism, condemning all terrorism irrespective of motivation or justification, and including the best attempt so far to define terrorism.²⁰ Additionally, its provisions require Resolution 1373's

Counter-Terrorism Committee (CTC) both to work with relevant organizations in order to develop best practices for implementing provisions on terrorist financing and to reinforce visits to states, as set out in UNSCR 1535, so as to monitor implementation and to facilitate the provision of assistance. Some of these activities may have applicability to the future role of the 1540 Committee. The Resolution also mandates a working group of Security Council members to examine practical measures that could be applied to terrorists not on the Al-Qaeda/Taliban Sanctions list and to consider the feasibility of an international compensation fund for the victims of terrorism.

When it became clear that these resolutions created a new and comprehensive UN agenda for countering terrorism and proliferation, there was scope for coordination between the several committees arising from the resolutions (see chapter 2 by Thomas Biersteker).²¹ On April 25, 2005, the chairmen of the 1540 Committee, the CTC, and the Al-Qaeda/Taliban Sanctions Committee, though not their first meeting, for the first time had jointly briefed the Council.²² The Security Council ultimately “called for strengthened cooperation among the Committees through enhanced information sharing, coordinated visits to countries and other issues of relevance.” Given the significant overlap of their areas of interest, the three committees perceived the need for closer cooperation among them. Together they could give rise to a new system of global governance at the UN level; and although it is important to identify Resolution 1540 as a specifically non-proliferation measure, the implication is that its full and effective implementation could be expected to result in or contribute to preventing the use of WMD by terrorists.

Resolution 1540: Its Significance

Resolution 1540 aims to fill several voids in the international system for controlling WMD proliferation. First, there is its focus on non-state actors. Existing treaties and regimes assume that only states have the intention and capabilities to develop WMD. The NPT, the BTWC, and the CWC, as the three main non-proliferation treaties, establish standards and norms of non-proliferation applicable, first and foremost, to states. Their references to non-state entities are secondary.

Because international law does not apply to individuals, non-state actors are subject only to prohibitions laid down in an often ambiguous patchwork of domestic law. Whereas some countries have a sophisticated and effective legal framework of laws, regulations, and controls, others have little in place that could deter terrorists and traffickers from acquiring and transporting WMD, related materials, and delivery means or that could prosecute them for

doing so. In an effort to oblige all states to tighten their domestic legal framework, Resolution 1540 is a re-presentation of states parties' obligations under the main treaties.²³ But it goes further, requiring all states, even those not party to the treaties, to criminalize and enforce measures against WMD proliferation to and by non-state actors.

The second gap filled by Resolution 1540 is in dealing with the proliferation of biological agents and weapons. Unlike the International Atomic Energy Agency (IAEA) and the Organisation for the Prohibition of Chemical Weapons (OPCW), which are international organizations fostering states' implementation and compliance with the NPT and the CWC respectively, there is no such organization for the BTWC. Despite potential pandemics such as avian influenza and the worldwide promulgation of biological technologies and know-how for public health applications as championed by UN Secretary General Kofi Annan, the international approach to non-proliferation of biological weapons and materials is less structured.²⁴ Chapter 3 in this book, by Elizabeth M. Prescott, and chapter 9, by Jeffrey Almond, discuss the implications of this situation and good practice in the life sciences and chemical industries for addressing biological proliferation issues.

Third, Resolution 1540 is the only measure that explicitly integrates proliferation concerns about delivery means with those about nuclear, chemical, and biological agents. Chapter 8, by Ted Whiteside, presents the issues and challenges involved in delivery systems, which are not the subject of legally binding non-proliferation treaties such as the NPT, the BTWC, and the CWC because of their applicability to the development of civil space capabilities and conventional weapons systems. Thus international control in this area goes little beyond the politically binding international export control guidelines that countries implement through their national export regulations.

Fourth, the resolution is significant in requiring measures beyond the obligations laid out in the three treaties. These are specified in its operative paragraphs 2 and 3, and concern financial, security and accountability, physical protection, border, and export controls. Although these issues are central to the Resolution, the 1540 Committee did little work on them in its first two years. Chapters 10 and 12, by Will Robinson and Gerald Epstein respectively, highlight some of the envisaged challenges presented by these new types of controls.

Lastly, the Resolution requires enforcement. It emphasizes enforcement in operative paragraphs 2 and 3; and its adoption under the UN Charter's Chapter VII, in which threats to international peace and security are addressed and whose obligations are mandatory, opens up for consideration the possibility of a range of sanctions in case of non-compliance. This aims not only to

address the enforcement weakness in the treaty and export control regimes but also to emphasize the role states are expected to play in developing capacity and working together to pre-empt proliferation (OP 10). Chapter 11, by Siew Gay Ong, examines the role of the Proliferation Security Initiative as an arrangement for preventing the proliferation of nuclear, chemical, and biological weapons, materials, and delivery means, and in chapter 13 Roelof Jan Manschot highlights through case studies, including that of Pakistani Abdul Qadeer Khan in the 1980s, the difficulties of balancing the different objectives of the law enforcement and intelligence communities when non-state actors are subject to prosecution.

Resolution 1540: Its Features

Just as UNSCR 1373 mandated the creation of the Counter-Terrorism Committee, so the 1540 Committee was set up to report on states' fulfillment of their obligations under Resolution 1540. The 1540 Committee, initially mandated for a maximum of two years but renewed on April 27, 2006, with UNSCR 1673, comprises representatives of all fifteen Security Council members, the ten non-permanent members of which rotate every two years. It was initially chaired by the Romanian ambassador, Mihnea Motoc.²⁵ When Romania's two-year membership in the Security Council ended at the end of December 2005, he was succeeded by Peter Burian, the UN ambassador of Slovakia, upon its joining the Security Council in January 2006.

The Security Council, learning from the experience of previous committees (especially those monitoring mandatory arms embargoes), called for outside technical assistance in order to ensure that the review and monitoring process proceeded professionally and without delay. The 1540 Committee, in conducting its work, could "call . . . as appropriate on other expertise" (OP 5), and thus an experts group, initially of four members but expanded to eight, was set up by the end of July 2005.²⁶

The 1540 Committee was also mandated to call upon all states to produce reports, within six months of the passing of the Resolution, "on steps they have taken or intend to take to implement this resolution" (OP 5). By the deadline for submissions on October 28, 2004, the number of reports submitted (excluding one by the EU) was 59; by April 20, 2006, it had risen to 129. One of the main roles of the renewed 1540 Committee will be to encourage and assist those states, primarily from Africa, the Caribbean, and the South Pacific, that still have to provide first reports.²⁷

The Resolution's drafters were aware that states have differing capacities for dealing with legislative and administrative issues, and Resolution 1540, like

UNSCR 1373, recommends that states either request or offer legal and technical assistance with implementation. With respect to the CTC, assistance was needed particularly for drafting anti-terrorism laws and developing banking and financial laws and regulations. The World Bank, as a UN body, is reported to have received more than 100 requests from countries to assist them in building capacity to deal with money laundering and terrorist financing. While some observers have expressed worry that this “assistance clause” was expressly put into 1540 by the United States so that it could dictate to others how to deal in the proper way with WMD proliferation with respect to non-state actors,²⁸ the 1540 Committee’s Work Guidelines explicitly state that it can undertake cooperation with relevant international organizations as needed for its work (appendix C, 2(d)).

Non-State Actors

UNSCR 1540 is a non- and counter-proliferation rather than a disarmament mechanism, with an emphasis on prevention. It aims to prevent individuals and other non-state entities from conducting activities related to the proliferation and use of nuclear, chemical, and biological weapons, related materials, and delivery means, and it criminalizes these activities through legislation arising from or reinforced by the Resolution’s implementation. The Resolution defines a non-state actor in a footnote as an “individual or entity, not acting under the lawful authority of any State in conducting activities which come within the scope of this resolution.” The definition is not prescriptive as to the nature, sector, or type of non-state actor: they may be, for example, individuals or entities with malign, criminal, or anti-state interests, non-governmental organizations, or multinational corporations.²⁹ Instead, the Resolution refers to anyone acting unlawfully in the light of its objectives, and thus implies a wide scope for the legislative provisions states could put into place, reflecting the different sectors that have the potential for proliferation.

This section will look briefly at the terrorist and the trafficker, explicitly referred to in the Resolution and expected to engage in the unlawful activities covered by it. Attention is drawn to a particular type of non-state actor who may fall foul of the new laws: individuals in the science and technology communities around the world upon whom the trafficker and terrorist can be expected to rely. The chapters in this volume by Elizabeth Prescott and Jeffrey Almond elaborate the scientific community’s distinct capabilities and characteristics and its potential to provide the information, know-how, and materials sought by terrorists or traffickers interested in acquiring nuclear, chemical, and biological weapon capabilities. The Resolution’s operative para-

graph 8(d) is clear in its call on all states “to develop appropriate ways to work with and inform industry and the public [academia] regarding their obligations under such laws” as implemented for Resolution 1540, thereby implicitly drawing attention to the need to deal with the potential of industrial and academic, scientific, and engineering personnel to abet terrorists and traffickers. When scientists and technicians possess or handle nuclear, chemical, and biological materials under ambiguous circumstances, their prosecution, depending on the status of a country’s legislation or regulations, poses complex challenges. These are elaborated in chapter 4 by Sarah Meek and Chandré Gould and in the chapters by Gerald Epstein and Roelof Manschot.

Terrorists and Traffickers

The stated central concern of UNSCR 1540 is to prevent the use by non-state actors, such as terrorists, of nuclear, chemical, and biological weapons. For decades the security literature has examined the possibility that this “sum of all fears” could become a reality, and a number of incidents exemplifying what might be involved have already been well reported. These events include the arrest in 1972 of members of the far-right Order of the Rising Sun, who possessed typhoid bacteria cultures with which they planned to poison water supplies in Chicago and other U.S. cities; the Rajneesh cult’s use in 1984 of food poisoning in ten restaurants in Wasco County, Oregon, in an attempt to influence local elections; and, probably most notorious, the Japanese Aum Shinrikyo sect’s acquisition of dual-use technologies and actual use of the nerve agent sarin in 1994 and 1995, most notably against the Tokyo subway system.

The attacks of 9/11 greatly heightened concern about terrorists using means other than a conventional gun, bomb, or mortar attack to achieve mass casualties and large-scale destruction or disruption and for ends that may not be clear and have little or no possibility of being settled by negotiation. Following 9/11, the U.S. postal system was heavily disrupted by the release of anthrax-filled packages, the source of which remains undetermined. There followed similar but hoax activity. Also, Osama bin Laden’s terrorist network and affiliated Islamic groups have expressed an aspiration to obtain some form of nuclear capability.

These commonly cited examples indicate that despite the potential, individuals or non-state groups with terrorist intent have yet to develop their own fully fledged nuclear, chemical, or biological weapons programs. The main obstacles remain the large infrastructure of resources and know-how needed to make deliverable nuclear weapons and the less demanding but still complex requirements for chemical and biological weapons. Instead, within the realm of their individual or small-group capability, they are believed more

likely to resort to means such as the theft of states' old or unprotected WMD stocks; to devise innovative ways of using easily available materials, component parts, or radiological waste instead of nuclear materials; or to seek support from states that have or are alleged to have WMD programs.

The availability of sensitive materials that can be trafficked for potential terrorist use and the means by which they might be obtained are thus emphasized by the Resolution. Its preamble codifies illicit trafficking as an additional dimension of proliferation and presents it as a threat to international peace and security. Attention is thereby drawn to acquisition or to development activities at an early stage in a proliferation process, these perhaps serving as indirect indicators of a possible intention to use nuclear, chemical, or biological weapons.

Among examples of such indicators arising in the scientific community is the illicit trafficking activities of the Pakistani metallurgist A. Q. Khan and his network, whose prosecution in the early 1980s is covered in the chapter by Roelof Manschot. The chapter by Sarah Meek and Chandré Gould is a case study of the issues involved in unraveling the alleged criminal conduct of Wouter Basson, a respected South African cardiologist working on apartheid South Africa's WMD programs, called Project Coast.³⁰ Both Khan and Basson are instances of scientists who are corrupted by considerations of privilege, prestige, and money and who are in a position to facilitate the development of clandestine state WMD programs or potential WMD use by terrorists. The vetting of personnel in sensitive positions continues to be important, but more attention is given to physical controls on nuclear, chemical, and biological materials. The G-8's Action Plan on Non-Proliferation of June 2004 encourages schemes for the redirection of the employment of personnel who have worked on the former WMD programs of Libya and Iraq. These schemes could contribute to fulfilling the Resolution's operative paragraph 8(d), and are discussed further in this volume's final chapter.

Resolution 1540: Treaties and Additional Measures

Resolution 1540 requires states to “promote the universal adoption and full implementation, and, where necessary, strengthening of multilateral treaties to which they are parties, whose aim is to prevent the proliferation of nuclear, biological or chemical weapons” (OP 8(a)). It also requires them to “fulfil their commitment to multilateral cooperation, in particular within the framework of the International Atomic Energy Agency, the Organisation for the Prohibition of Chemical Weapons, and the Biological and Toxin Weapons Convention” (OP 8(c)).

Most states have already signed and ratified the three main WMD treaties, and thus have some form of relevant national legislation in place whose enforcement would go a long way toward compliance with Resolution 1540. In most cases, states will also have worked with the named organizations, particularly when adopting secondary legislation or regulations for creating the necessary national authorities to implement and enforce the treaties.

However, Resolution 1540 emphasizes not these treaties per se but the resulting national legislation and other regulations and controls that provide the basis upon which action can be taken against non-state actors. As much of the legislation to implement and comply with the Resolution is similar to that for the existing WMD treaties, a positive or complementary side effect is that states that are willing but have not yet had the time or resources to become a party can both implement and comply simultaneously.

The emphasis of the legislation is significant: Resolution 1540 encourages and promotes universal WMD treaty implementation, but states not yet a party retain their prerogative not to sign these treaties. During the open debate before adoption of the Resolution, Indian officials made it clear that “we shall not accept any interpretation of the draft resolution that imposes obligations arising from treaties that India has not signed or ratified. . . .”³¹ There is less than universal adherence to the three WMD treaties (much less implementation of them). Some countries, such as India, Pakistan, and Israel, have not signed the NPT but have adopted national legislation in compliance with Resolution 1540. Others have not signed the CWC or the BTWC, and may perceive themselves to be confronted with de facto new legal obligations even though they, like all UN members, are bound to adhere to Security Council resolutions.

The Resolution stipulates that it does not alter the “rights and obligations” of states parties to the NPT, the CWC, and the BTWC or change the responsibilities of the IAEA and the OPCW. It should therefore be clear that UNSCR 1540 does not supersede existing international non-proliferation and arms control instruments but instead fills the gaps in their varying approaches. The history of treaty negotiations to ban or control the three types of WMD material—nuclear, chemical, and biological—is markedly different in each case, leading to a variety of mechanisms for treaty implementation as well as for dealing with treaty violations. Each of the three treaties raises different issues and challenges highlighted by the Resolution.

The Chemical Weapons Convention

The CWC relies on a “general purpose criterion” to ban the use of any chemical as a weapon except for purposes permitted under the terms of the convention,

for example riot control, and has specifically mandated the Organisation for the Prohibition of Chemical Weapons to facilitate its implementation and verification regime. The treaty has established lists (in annexed schedules) of various types of chemicals that have been weaponized in the past and whose export is therefore subject to declaration and routine inspection. The schedules also specify the volumes of these chemicals permitted for commercial export. However, they are merely illustrative, to help inspectors and industry to manage the inspection and verification regime for the export of chemicals and the destruction of old CW stockpiles, because the treaty's "general purpose criterion" bans all chemicals, including those not yet invented, for use as weapons.

The CWC illustrates the challenges raised by Resolution 1540 when it comes to dealing with volumes of chemical agents that are significant in a terrorist, as opposed to military, context. The Resolution does not use the term *WMD* at all (except in the preamble, referring to the 1992 Statement). It refers instead to destructive materials separately, underlining the importance of distinguishing between the three as well as drawing the proliferation debate away from the notion of "mass destruction" as the sole (or prime) basis upon which prosecution or preventive action can be taken.

Chapter 5 of this book, by Ron G. Manley, illustrates how legislators as well as law enforcement officials are challenged by Resolution 1540 in trying to deal with the potentially smaller amounts of chemicals, perhaps measured only in kilograms, that might have terrorist significance, compared to the more easily measurable volumes of chemicals, usually in the order of tons, known to have military significance.³² Although the "general purpose criterion" covers all chemicals, implementing the Resolution means that attention is drawn to chemicals not listed in a schedule. One example, as Manley points out, is sodium cyanide or potassium cyanide—in small amounts it can pose a threat in terrorist hands—and there are some riot-control agents that are not subject to inspection. It remains to be seen how states' legislators will work with industry in dealing with their obligations under prospective new legislation in accordance with Resolution 1540's operative paragraphs 3 and 8(d). This legislation could also be undertaken in tandem with the export control guidelines of the Australia Group.

The Nuclear Non-Proliferation Treaty

The NPT is commonly regarded as an arrangement between the nuclear weapons states, which agree to transfer nuclear technology and materials to non-nuclear weapons states for peaceful purposes, and the non-nuclear weapons states, which in return commit themselves not to divert this material to developing nuclear weapons.³³ This treaty has near-universal adherence.

India, Israel, and Pakistan are the only non-signatories, and North Korea withdrew from it in 2003, arguably. The importance of the NPT in relation to Resolution 1540 in the context of this book lies in the role of the IAEA as an international organization through which nuclear non-proliferation goals can be achieved.

In contrast to the CWC, which specifically mandated the creation of the OPCW, the NPT appointed the pre-existing IAEA (established in 1956) as the organization with which non-nuclear weapon states were to sign safeguard agreements and to implement non-proliferation measures. These agreements are “for the exclusive purpose of verification of the fulfilment of its obligations . . . with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices” (NPT, article 3-1). The IAEA was empowered to conduct inspections of declared civil nuclear power and research facilities in order to ensure that high-level source or special fissionable material usable for nuclear weapons, that is, enriched uranium or plutonium (an energy fuel cycle waste by-product), is adequately accounted for, handled, stored, and disposed of.

Although the NPT and Resolution 1540 both focus on nuclear materials and weapons, the IAEA has a broader remit (see chapter 6 by Tariq Rauf and Jan Lodding), also to cover the monitoring, safe handling, and disposal of lower-level radioactive waste, for example from hospitals and industry. The safe handling and transportation of all types of this material and waste is thus already covered by the IAEA, notably in its Code of Conduct on the Safety and Security of Radioactive Sources and the Convention on the Physical Protection of Nuclear Materials. Both measures are mentioned in the preamble to UNSCR 1540, and have subsequently been enhanced to take account of the more rigorous enforcement requirements of the Resolution. On April 13, 2005, the UN General Assembly added the International Convention on the Suppression of Acts of Nuclear Terrorism to this existing legal framework. Unlike Resolution 1540, it criminalizes the possession, use, or threatened use of radioactive devices by non-state actors.

In support of Resolution 1540, the Convention further requires all participating governments to prosecute terrorists under their domestic legal system and encourages exchanges of information and increased cooperation in order to avoid nuclear terrorism.³⁴ The IAEA’s Illicit Trafficking Database is an additional source of information. It has documented more than 660 confirmed incidents of illicit trafficking and other related unauthorized activities involving nuclear and other radioactive materials from 1993 to 2004, even though only about 18 are confirmed incidents involving trafficking in highly enriched uranium or plutonium. All the cases are assessed for patterns or trends that

could provide guidance for states framing further domestic legislation and enforcement mechanisms so as to comply with UNSCR 1540.³⁵

Just as the OPCW has an assistance and protection program under the CWC's Article 10, so the International Atomic Energy Agency has a program of assistance on legislation, training, and materials accountancy. These are useful resources to which the 1540 Committee can refer in its role of brokering assistance to states in meeting the Resolution's requirements.

The Biological and Toxin Weapons Convention

The BTWC bans the development, acquisition, and use of biological and toxin agents as weapons, relying on the same general purpose criterion as used by the CWC.³⁶ Article 1 of the BTWC points out that this objective applies to all states, and thus it is the principal focus of the treaty, but Article 3 refers to states undertaking "not to transfer to any recipient whatsoever, directly or indirectly, . . . the agents, toxins, weapons, equipment or means of delivery specified in Article 1." It is noted that "means of delivery" is mentioned, as it is too, in UNSCR 1540.

As mentioned earlier, Resolution 1540 emphasizes the need to have national laws in place owing to the BTWC lacking an international organization for implementing the treaty comparable to the IAEA and the OPCW. The chapter in this study by Angela Woodward highlights this void and what states parties to the treaty have done over the years to try to cope with it through procedural rather than institutional channels. If all states ratified and enforced treaty legislation, then many of the objectives of UNSCR 1540 would also be met with respect to biological non-proliferation.

New and Additional Requirements

Resolution 1540 recognizes that most states have undertaken binding legal obligations under the main treaties or have made other commitments to stem the proliferation of nuclear, chemical, or biological weapons, but it is particularly notable and significant for "*Recognizing further* the urgent need for all States to take additional effective measures to prevent the proliferation of nuclear, chemical or biological weapons and their means of delivery" (preambular paragraph, italics in original). Thus even if all UN member states become parties to the main WMD treaties and fully implement the consequent national legislation, the Resolution still requires them to "take additional effective measures." This phrase draws attention to new measures beyond treaty requirements, in operative paragraphs 2 and 3, which need to be implemented and also to be enforced for effective compliance with the Resolution. These additional measures are intended to improve the financial,

security, and physical protection of sensitive materials and also border and export controls. The aim is to address one of the new features of the Resolution—the naming in the preamble of illicit trafficking as a new dimension of proliferation and therefore a threat to international peace and security. However, the 1540 Committee did little work on these additional measures during its first two years of operation, other than noting the information that states had provided in their submissions on the measures they had undertaken or intended to undertake in these areas.

Although the physical protection of sensitive materials has been fairly well developed by the work of the IAEA and although export control regimes are well established, financial controls and border controls are not on the traditional arms control and non-proliferation agenda. The chapter by Will Robinson examines the new role of the World Customs Organization in addressing some of the latter two controls, and the chapter by Gerald Epstein highlights some of the challenges of addressing the security and accountability of sensitive biological materials.

Enforcement

Enforcing compliance with Security Council resolutions is a political process, and is only as strong as states' willingness to undertake it within the collective security framework of the UN system. Although Iraq's non-compliance with UNSCRs from April 1991 to March 2003 was notable, even more so was the controversy surrounding how UN member states would enforce those resolutions, which in the end resulted in the March–April 2003 conflict in Iraq.

UNSCR 1540 has not given rise so far to these types of enforcement challenge, which are mentioned here to place the Resolution in the wider context of national and international security issues. Yet in the context of the recent UN reforms, the processes by which UNSCRs 1373 and 1540 came about, the comprehensiveness of Resolution 1540's coverage, and its universal and mandatory requirements place it in a new and as yet undefined category of measures under which states can no longer allow proscribed activities with impunity in and across their borders. If in this age of global communications states continue to tolerate proscribed activities and remain unable to institute accountable and transparent governance mechanisms, they subject themselves to examination by others. Resolution 1540 provides a framework within which nations can question one another about activities that suggest illicit trafficking or other proscribed activity. Evasive answers cast doubt on a state's commitment to preventing the misuse of a dual-use technology or other activity proscribed by Resolution 1540. Even though the Resolution does not

mandate specific enforcement measures or penalties for non-compliance—it requires states to do so instead—the Security Council can take such action as it deems necessary.

Conclusion

The lax enforcement and patchy coverage of the non-proliferation regimes became more conspicuous after 9/11, when concerns about potential terrorist use of WMD became more pressing, at least on America's security agenda. Resolution 1540 clearly indicates that the UN is taking a more vigorous approach to keeping nuclear, chemical, and biological weapons, related materials, and means of delivery from terrorists and traffickers. Although the UN has been exercising its authority in a clearer and more forceful way since the 1992 Security Council Statement, there has been a lack of consistency in addressing WMD proliferation threats, and this can be attributed to disagreements among the five permanent member states of the Security Council about the UN's role in this area of security. Although other states have also expressed concern about the possible implications of the Resolution's implementation, this has not surfaced during the first two years of the 1540 Committee's work.

Resolution 1540 gives the Security Council a more concrete mission and mandate in the area of non- and counter-proliferation, but they are still imprecise. It remains to be seen how the Resolution's provisions will be made operational and enforced. Imprecision was necessary, however, because states have widely varying capacities for implementing and enforcing the Resolution, and it is they, not the Security Council, that must take appropriate action in accordance with their national capabilities and legislative frameworks.

Notes

1. The phrase “weapons of mass destruction” (WMD) is conventionally used as shorthand for nuclear, chemical, and biological weapons, with their differences to be recognized. A Statement arising from the January 1992 UN Security Council summit refers to WMD, but UNSCR 1540 does not, other than in the preamble referring to the 1992 Statement.

2. U.S. Secretary of Defense Donald Rumsfeld, Interview with ABC “This Week,” February 3, 2002, at www.defenselink.mil/transcripts/2002/t02032002_t0203abc.html.

3. This edited volume arises from a major international conference organized by Olivia Bosch and Peter van Ham on “Global Proliferation and Counter-Terrorism: The Role of UNSCR 1540,” October 11–12, 2004, Chatham House, London. See also the reference in the Chairman's Report, “Report of the Committee Established Pursuant

to Resolution 1540 (2004),” United Nations Security Council, S/2006/257, April 25, 2006, p. 42, at <http://disarmament2.un.org/Committee1540/chairreport.html>.

4. UNSCR 1540, adopted at the 4956th meeting of the UN Security Council, April 28, 2004. A copy of the text appears as appendix A in this volume and at [http://disarmament2.un.org/Committee1540/Res1540\(E\).pdf](http://disarmament2.un.org/Committee1540/Res1540(E).pdf).

5. *The National Security Strategy of the United States of America* (Washington, D.C.: The White House, September 2002), at www.whitehouse.gov/nsc/nss.html; Javier Solana, *A Secure Europe in a Better World*, European Council, Thessaloniki (June 2003), at http://ue.eu.int/ueDocs/cms_Data/docs/pressdata/EN/reports/76255.pdf; and “The European Union Strategy against Proliferation of Weapons of Mass Destruction,” The Council of the European Union, Brussels (December 2003), at <http://ue.eu.int/uedocs/cmsUpload/st15708.en03.pdf>.

6. Although there is no definitive definition of this term for the purposes of UNSCR 1540, *illicit trafficking* tends to refer to the usually accountable and legal movement of items but which are used for proscribed purposes; *smuggling* has a connotation of activity that intends to circumvent or breach customs regulations, usually for financial gain, for example falsifying cargo manifests in order to minimize customs duties.

7. The Resolution’s operative paragraphs are numbered from 1 to 12, as distinct from the unnumbered paragraphs in the preamble. Paragraphs 1–5 and 12, beginning with “Decides,” are deemed technically to carry more emphasis than those numbered 6 to 11. The Resolution also has a footnote, which, for only its purposes, provides definitions of means of delivery, non-state actors, and related materials.

8. Quoted in senators Carl Levin and Jack Reed, “Toward a More Responsible Nuclear Nonproliferation Strategy,” *Arms Control Today*, Vol. 34, No. 2 (January/February 2004), pp. 9–14, at www.armscontrol.org/act/2004_01-02/LevinReed.asp.

9. “The New Multilateralism,” *Wall Street Journal*, January 8, 2004.

10. Quoted in Carla Anne Roberts, “The U.N.: Searching For Relevance,” *Wall Street Journal*, October 21, 2003.

11. Joseph Cirincione, “Nuclear Regime in Peril,” *YaleGlobal Online Magazine*, May 17, 2005, at www.carnegieendowment.org/publications/index.cfm?fa=view&id=16946.

12. *Ibid.*

13. “President Bush Addresses United Nations General Assembly,” New York, September 23, 2003, Office of the Press Secretary, the White House, at www.whitehouse.gov/news/releases/2003/09/20030923-4.html.

14. James Holmes, “Rough Waters Ahead,” *Bulletin of the Atomic Scientists*, Vol. 61, No. 6 (November–December 2005), p. 24.

15. “Romania Co-authored the Security Council Resolution on Non-Proliferation of Weapons of Mass Destruction,” Press Release, April 30, 2004, at www.roembus.org/english/security_council/April_30_Romania%20co-authored%20the%20Security%20Council%20resolution%20on%20non-proliferation%20of%20weapons%20of%20mass%20destruction.htm.

16. “Speakers in Security Council Debate on Weapons of Mass Destruction Express Doubts over Content of Proposed Non-Proliferation Text,” Press Release SC/8070, Security Council, 4950th Meeting, April 22, 2004, at www.un.org/News/Press/docs/2004/sc8070.doc.htm.

17. Gabriel H. Oosthuizen and Elizabeth Wilmshurst, “Terrorism and Weapons of Mass Destruction: United Nations Security Council Resolution 1540,” Chatham House Briefing Paper, September 2004, p. 3.

18. Curtis A. Ward, “Building Capacity to Combat International Terrorism: The Role of the United Nations Security Council,” *Journal of Conflict & Security Law*, Vol. 8, No. 2 (2003), p. 294.

19. With the passing of UNSCR 1455 on January 17, 2003, the reporting and evaluation procedures of Resolution 1373’s CTC were adopted for Resolution 1267.

20. Paragraph 3(d) provides what has been called the closest definition of terrorism to date: “criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages, with the purpose to provoke a state of terror in the general public or in a group of persons or particular persons, intimidate a population or compel a government or an international organization to do or to abstain from doing any act, which constitute offences within the scope of and as defined in the international conventions and protocols relating to terrorism, are under no circumstances justifiable by considerations of a political, philosophical, ideological, racial, ethnic, religious or other similar nature.”

21. Biersteker elaborates the evolution of the respective resolutions’ committees and areas of common activity.

22. See “Security Council Briefed by Chairmen of Anti-Terrorism Committees; Calls for Strengthened Cooperation, Enhanced Information Sharing,” 5168th Meeting, Press Release SC/8366, April 25, 2004, at www.un.org/News/Press/docs/2005/sc8366.doc.htm.

23. A “State Party” is one that has both signed and ratified (or acceded to) a treaty. The process of ratification (or accession, after an initial requisite number of States Parties has enabled the treaty to enter into force) means that a state makes the international treaty obligations part of its domestic law and national regulations.

24. Kofi Annan, “A Global Strategy for Fighting Terrorism,” Keynote Address to the Closing Plenary of the International Summit on Democracy, Terrorism and Security, March 10, 2005, at <http://english.safe-democracy.org/keynotes/a-global-strategy-for-fighting-terrorism.html#transcripcion>; Kofi Annan, “Uniting against Terrorism: Recommendations for a Global Counter-Terrorism Strategy,” Report of the Secretary General, United Nations General Assembly, April 27, 2006, at www.un.org/unitingagainstterrorism/sg-terrorism-2may06.pdf.

25. See foreword in this volume.

26. These experts, joining the group between February 6 and July 23, 2005, are B. Andemicael (Eritrea), V. Beck (Germany), R. Cupitt (United States), G. Heineken (Argentina), R. Monteleone-Neto (Brazil), P. Palanque (France), V. Slipchenko (Russian Federation), and I. Suseanu (Romania).

27. "Report of the Committee Established Pursuant to Resolution 1540 (2004)," United Nations Security Council, S/2006/257, April 25, 2006, at <http://disarmament2.un.org/Committee1540/chairreport.html>, p. 7.

28. Alyn Ware, "International Ju-Jitsu: Using United Nations Security Council Resolution 1540 to Advance Nuclear Disarmament," www.wagingpeace.org/articles/2004/07/00_ware_ju-jitsu.htm, p. 3.

29. Citing Richard A. Falkenrath: "The term 'non-state actors' includes traditional, familiar terrorist organisations; paramilitary guerrilla groups fighting for control of territory; cults and other religious organisations; militias or other geographically fixed paramilitary groups; organised crime syndicates; mercenary groups; breakaway units of a state's military, intelligence or security services; corrupt multinational corporations; and lone individuals" in "Confronting Nuclear, Biological and Chemical Terrorism," *Survival*, Vol. 40, No. 3 (Autumn 1998), p. 62.

30. Chandré Gould and Peter Folb, *Project Coast: Apartheid's Chemical and Biological Warfare Programme* (Geneva: UNIDIR, December 2002).

31. See also the reference in "Report of the Committee Established Pursuant to Resolution 1540 (2004)," United Nations Security Council, S/2006/257, April 25, 2006, p. 42, at <http://disarmament2.un.org/Committee1540/chairreport.html>.

32. Ron Manley provides the following examples: the United States in the 1980s had 100,000 tons of chemical agents. Iraq had up to 10,000 tons of chemical nerve agent sarin at that time. Aum Shinrikyo (1995) used a few kilograms of sarin.

33. The 1968 Nuclear Non-Proliferation Treaty defines a nuclear-weapon state as "one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to January 1, 1967" (article IX). Although not named, these states are China, France, Russia (originally the Soviet Union), the United Kingdom, and the United States. By historical accident, these states are also the five permanent members of the UN Security Council.

34. Claire Applegarth, "UN Adopts Nuclear Terrorism Convention; Treaty Seven Years in the Making," *Arms Control Today* (May 2005), p. 40, at www.armscontrol.org/act/2005_05/NuclearTerrorismConvention.asp.

35. See IAEA at www.iaea.org.

36. Toxins are poisonous chemicals of biological derivation. Technological advances mean that now many of them can be synthesized.