



Disarmament

A Basic Guide

by
Melissa Gillis

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Note

THE UNITED NATIONS OFFICE FOR DISARMAMENT AFFAIRS is publishing this *Basic Guide* in collaboration with the NGO Committee on Disarmament, Peace and Security pursuant to the purposes of the United Nations Disarmament Information Programme (UNDIP). The mandate of the Programme is to inform, educate and generate public understanding of the importance of multilateral action, and support for it, in the field of arms limitation and disarmament. The *Guide* is intended for the general reader, but may also be useful for the disarmament educator or trainer.

THE *GUIDE* was written by Melissa Gillis, with cover design by Cecile Dacudao of the United Nations Office for Disarmament Affairs.

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Since 1972, the **NON-GOVERNMENTAL ORGANIZATION (NGO) COMMITTEE ON DISARMAMENT, PEACE AND SECURITY** has provided services to citizens' groups concerned with the peace and disarmament activities of the United Nations. Its efforts include organising conferences, serving as a clearinghouse for information, publishing a newspaper (*Disarmament Times*) and acting as a liaison between the disarmament community and the United Nations.

THE COMMITTEE has a crucial and expanding responsibility to inform NGOs worldwide of a number of disarmament-related issues, including the status of negotiations, country positions, major obstacles and opportunities, and to help NGOs transmit their expertise to the appropriate decision-making fora within the United Nations system. The Committee publishes *Disarmament Times*, a quarterly publication reporting on a range of disarmament issues before the United Nations. Learn more at <http://disarmtimes.org>.

THE *GUIDE* can be found online at <http://www.un.org/disarmament/HomePage/ODAPublications/AdhocPublications/PDF/guide.pdf>.

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Despite a downward trend in conflict, in **2008**, the world's governments spent US **\$1,464 billion** to **arm** themselves, amounting to **\$216** for each **person** alive today.

CHAPTER 1

Why Is Disarmament Important?

THE NATURE OF CONFLICT AND THE WEAPONRY used to fight it have changed dramatically in the last 100 years. Before the 20th century, few countries maintained large armies and their weapons – while certainly deadly – mostly limited damage to the immediate vicinity of battle. The majority of those killed and wounded in pre-20th century conflicts were active combatants.

By contrast, 20th-century battles were often struggles that encompassed entire societies, and in the case of the two world wars, engulfed nearly the entire globe. World War I left an estimated 8.5 million soldiers dead and five to 10 million civilian casualties. In World War II, some 55 million died. Weapons with more and more indiscriminate destructive power – weapons of mass destruction – were developed and used, including chemical and biological weapons, and, for the first time, nuclear weapons, which were dropped on Hiroshima and Nagasaki, Japan in 1945.

The second half of the 20th century was dominated by the Cold War and its attendant “proxy wars,” wars of national liberation, intrastate conflicts, genocides, and related humanitarian crises. Although experts vary on their estimates of the number of people who have died as a result of these conflicts, there is general agreement that the number is upwards of 60 million and perhaps as much as 100 million people, many of them non-combatants. States engaged in an all out arms race, spending US \$1,000 billion annually by the mid-1980s to build arsenals capable of inflicting massive destruction anywhere on the globe.

Then with the fall of the Berlin Wall in 1989, came a lessening of tensions between the two superpowers and military budgets

began to fall. Unfortunately the shrinking of military budgets was a short-lived trend, coming to an end in the late 1990s; since then they have risen some 45 percent (as of 2009).

War in the 21st Century

THE OVERWHELMING MAJORITY OF VIOLENT CONFLICTS today are fought within States, their victims mostly civilians. Most conflicts are fought primarily with small arms and light weapons, which account for 60 to 90 percent of direct conflict deaths, some 250,000 each year.

While war still takes a huge toll globally, the number of conflicts and the number of casualties are down since the end of the Cold War. The Human Security Brief 2007 noted that between the end of the Cold War and 2006, the number of armed conflicts involving governments (as at least one of the warring parties) had decreased by more than 40 percent. The most severe conflicts and the number of genocides had declined even more dramatically – by some 80 percent. Also down were the number of conflicts between non-State actors (with no direct government involvement), which declined by one-third between 2002 and 2006. With a few exceptions (notably Iraq and Afghanistan), conflicts in the post-Cold War period have been fought in low income countries by small, poorly-trained armies.

DESPITE THE DOWNWARD TREND IN CONFLICT, in 2008, the world's governments spent an estimated US \$1,464 billion to arm themselves, a level of spending not seen since the fall of the Berlin Wall in 1989. This figure amounts to \$216 for each person in the world. The United States alone accounts for \$607 billion or nearly 42 percent of the total.

The economic drain associated with defence spending, particularly in a time of global economic crisis, is dramatic, and nowhere more so than in the developing world, where all too often governments spend limited revenues on military forces rather than on

pressing social needs.

For many of the world's poor people, war and criminal violence are directly impeding their chances of development. By 2010, half of the world's poorest people could be living in States that are experiencing, or are at risk for, violent conflict, according to the United Kingdom's Department for International Development.

THE WORLD IS AWASH IN WEAPONS. There are an estimated 875 million or more small arms in circulation, according to the United Nations Secretary-General's report to the Security Council (April 2008).

At the beginning of 2008, nuclear-weapon States possessed more than 23,000 nuclear warheads, more than 8,000 of which are operational and several thousand of which are kept on high alert, ready to be launched within minutes. World stocks of fissile materials, the material used to make nuclear weapons, are in the thousands of (metric) tons, enough to produce tens of thousands of new warheads.

Seventy-three countries continue to stockpile billions of cluster bombs or munitions, which, according to Human Rights Watch, have been used in Iraq, Lebanon and Georgia in recent years. More than 75 countries are still affected to some degree by landmines and unexploded ordnance or other remnants of war.

Increasingly women and children are casualties of war. More than 250,000 children have been exploited as soldiers and hundreds of thousands of women have been raped in conflict situations.

IT IS A MOMENT OF CHALLENGE for many arms control regimes, most notably the Nuclear Non-Proliferation Treaty (NPT), whose nuclear- and non-nuclear-weapon States parties have been at loggerheads over what their priorities should be. Nuclear-weapon States, 40 years after the NPT entered into force, have failed to hold up their end of the nuclear bargain, to pursue "in good faith"

negotiations on nuclear disarmament, as mandated by the NPT. On the flip side of that coin, nuclear proliferation is a growing concern globally.

After more than a decade of no progress – indeed, many setbacks – in this area, there are now some positive signs, including calls for nuclear abolition from prominent current and former leaders of government and civil society. The question now is whether the talk will be translated into serious, irreversible action toward nuclear disarmament.

In what many see as a time of new opportunities in arms control, there is much work to be done. There are no legally binding treaties in place to deal with missiles or the trade in small arms and light weapons, two extremely important areas. The Comprehensive Nuclear-Test-Ban Treaty, which bans all nuclear testing, has yet to enter into force, awaiting ratification by key nuclear-weapon States and other countries of concern. The United States and the Russian Federation, which have been destroying huge chemical weapons stockpiles, are likely to miss the 2012 deadline to eliminate these weapons.

Not all the news, however, is bad. In 2008, more than 100 countries successfully negotiated a ban on cluster munitions which continues to gather support and could come into effect by 2010. The Landmine Convention also continues to add members and has effectively halted the global trade in landmines. There is also strong support for negotiating both a ban on the materials used to make nuclear weapons and an arms trade treaty to better regulate the global trade in conventional arms. While support is strong it is not universal, and negotiations on both are likely to be contentious.

“**HUMAN SECURITY** and national security should be – and often are – mutually reinforcing. But secure **STATES** do not automatically mean secure **PEOPLES**. Protecting citizens from foreign attacks may be a **NECESSARY** condition for the security of individuals, but it is not a **SUFFICIENT** one.”

HUMAN SECURITY BRIEF 2007, Human Security Research Group, Simon Fraser University, British Columbia, Canada

Understanding Human Security

ALL OF THIS COMES AT A TIME when it is increasingly being recognised in the international community that there needs to be a broadening of the way we think about security. To our ideas about *national security* (with its focus on defence of the State from external attack), need to be added ideas about *human security* (with its focus on the security of the individual within society). Threats today come not simply – or even predominantly – in the form of enemy troops, but also in the form of poverty, lack of opportunity and discrimination. These factors can be destabilising just as armed conflict is destabilising, and often they go hand-in-hand with violent conflict.

At its most basic, human security requires protection from violence and the threat of violence. But more than simply an absence, human security also requires a presence, the presence of structures that enable people to survive, to have a livelihood and to live in dignity. Human security requires not just freedom from fear, but also freedom from want. It requires that basic needs – food, shelter, healthcare – be met; that opportunities – in education or training, in seeking a vocation or livelihood – be provided; that the human rights of all be respected.

WHAT THEN IS THE RELATIONSHIP between human security and disarmament? To achieve human security will require much more than disarming, but without significant efforts to disarm, efforts to

build human security will almost certainly be incomplete. A community awash in illicit guns is less likely to be a secure place for people. A nation awash in conventional weapons – tanks, mines, cluster bombs, fighter jets – whether they are used against external “enemies” or internal populations, is much less likely to be (and remain) a secure place for people. A world awash in thousands of nuclear weapons and hundreds of thousands of missiles capable of carrying them long distances with great accuracy is less likely to be a secure place for people.

But it is not only a question of the weapons themselves; it is also a question of the resources – monetary and human – that go into developing, building, maintaining and even dismantling and disposing of these weapons. Not to mention the billions of dollars that have and will continue to go into rebuilding societies shattered by conflict and violence.

THE ECONOMIC BURDEN on all nations is tremendous; from the poorest to the richest, everyone pays the price. The governments of the poorest nations all too often choose armaments over much-needed education and healthcare. For those countries directly affected by conflict, economic development halts and is often reversed.

But it is not only the poorest nations that are affected. In the United States, more than half of discretionary spending in 2009 (57 percent) went to building and maintaining the war machine and fighting wars, according to the Center for Arms Control and Non-Proliferation. Education spending (the next largest category of discretionary spending), by comparison, comprised only eight percent of the budget.* This is happening at a time when millions are without jobs and health insurance, when infrastructure is crumbling and many schools are widely seen as failing.

Even greater than the economic cost of war is the human cost. Millions of lives have been lost or broken, inflicting an incalculable cost.

The more than \$1,000 billion spent each year by the world's governments to arm themselves and make ready for war could go a long way toward easing poverty, providing universal access to education and healthcare, fighting discrimination and inequities and protecting the environment and human rights. In short, redirecting that \$1,000 billion could go a long way toward making the world more secure than it is right now. (In fact, just a tiny portion of it – less than five percent – could make a significant difference. See the next section, on “Global Arms Expenditures,” for more specific figures.)

Of course, it is unrealistic to expect the world's governments to zero out military spending. National governments and regional and international organisations have responsibilities that require some level of defence. But we must ask: How could – indeed, how must – our budgets be reprioritised to meet the goals of human security? And could such a re-alignment provide a deeper, more lasting and more just security?

Disarmament is not only about eliminating weapons; it is also about creating opportunities – opportunities to think about security in new ways, to reprioritise our budgets, and to rethink our sense of ourselves as nations in community with one another.

THE UNITED NATIONS, as its Charter reminds us, was meant to be a place where the peoples of the world could come together to “save succeeding generations from the scourge of war [and] . . . to practice tolerance and live together in peace with one another as good neighbours . . .” It was envisioned as a place where people would “unite our strength to maintain international peace and security and . . . ensure . . . that armed force shall not be used, save in the common interest . . .”

Obviously members of the United Nations have fallen short of these visions and goals. The organisation has been crippled by a Cold War, by competing regional blocs, and by individual, obstructionist nations. Yet States *have* come together to achieve im-

pressive ends – treaties banning chemical and biological weapons, landmines and cluster munitions; and treaties regulating the proliferation of nuclear weapons and calling for nuclear disarmament. And there are important fora to discuss threats to international peace and security and the promulgation of new arms control treaties. But in the end, the United Nations can only be as great as the sum of its parts – the countries of the world. It is not and was never intended to be an organisation standing *above* the world’s nations, or even an organisation standing *next* to them. It is an organisation *of* the world’s nations, and as such, it can be as much as those nations will let it be.

We are living in a time of great challenges, but within these challenges are opportunities – to not only reduce the world’s armaments, but also to think about disarmament and security in new ways, making the security of the world’s people central to the security agenda.

NOTE

*The United States federal budget has two categories of spending – discretionary and mandatory. The latter includes programmes that must be funded at certain levels by law, including social security, Medicare and Medicaid.

CHAPTER 2

Global Arms Expenditures

“**EVERY GUN** that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children.”

DWIGHT D. EISENHOWER, 34th President of the United States, from a speech before the American Society of Newspaper Editors, April 16, 1953

WORLD MILITARY EXPENDITURE, after many years of growth in the Cold War period, decreased from US \$1,200 billion in 1985 to \$809 billion in 1998, reflecting cuts in every region except Asia (where spending was up by more than a quarter during the 1990s). During this time, the number of military personnel, weapons production and stockpiles of weapons were all reduced. The United States, which accounts for the single largest piece of the global spending pie, dropped its military spending by one-third during the decade 1989-1999. The Russian Federation also reduced arms expenditures in that time: in 1998 it spent one-fifth of what the Soviet Union had spent ten years earlier.

Since 1998, however, military spending has once again been on the rise, reaching nearly Cold War levels in some countries, including the United States. World military expenditures in 2008 were an estimated \$1,464 billion, according to the Stockholm International Peace Research Institute (SIPRI), a four percent in-

crease in real terms since 2007 and a 45 percent increase since 1999. This figure represents 2.4 percent of global Gross Domestic Product (GDP) or \$216 for each person in the world. All regions and sub-regions have seen significant increases since 1999, except Western and Central Europe.

What is driving these spending increases? According to the Stockholm International Peace Research Institute (SIPRI), the reasons are many, but have to do primarily with several factors: foreign policy objectives, real or perceived threats, armed conflict, and contributions to multilateral peacekeeping operations. The availability of economic resources in a climate of strong economic growth has also fueled spending increases, although that may change in tougher economic times.

Military spending is highly concentrated; 10 countries worldwide account for 74 percent of the total. The United States, which is first in military spending, alone accounts for nearly 42 percent of total global military spending. The United States is followed distantly by China, France, the United Kingdom, the Russian Federation, Germany and Japan (China at about six percent of the total, all the others less).

Military Expenditures 2008

Country	Amount	Global Rank
United States	\$607.0	1
China	(\$84.9)*	2
France	\$65.7	3
United Kingdom	\$65.3	4
Russian Federation	(\$58.6)*	5
Germany	\$46.8	6
Japan	\$46.3	7
Italy	\$40.6	8

SOURCE: Stockholm International Peace Research Institute, 2009.
 Amounts are in billions of fiscal year 2009 U.S. dollars.
 ()*= SIPRI estimate

The Opportunity Cost of Military Spending

NO ONE EXPECTS global military spending to be eliminated. States have legitimate security needs that must be met, as well as obligations to build and sustain regional and international security. But spiraling defence budgets and misplaced priorities have cost a great deal not only in monetary terms but also in opportunities lost. The world is plagued by great social challenges that can translate into greater human insecurity and even conflict— extreme poverty, lack of basic rights, lack of opportunity, lack of access to education, healthcare and shelter, environmental degradation, disease and discrimination. Spending \$1,464 billion to build militaries and weaponry has meant *not* spending scarce resources to meet social responsibilities; it has meant *not* meeting the basic needs of people globally.

Percentage Increase in Military Spending 1998-2008

	2008 Spending	% Change
Africa	\$20.4 b	+ 202%
Americas	\$603 b	+ 64%
Asia/Oceania	\$206 b	+ 52%
Europe	\$320 b	+ 14%
Middle East	\$75.6 b	+ 56%

SOURCE: Stockholm International Peace Research Institute, 2009.
Amounts are in billions of constant 2005 U.S. dollars.

Yet the importance of achieving these rights and meeting these needs has been recognised many times over the past two decades in United Nations conferences and summits, culminating in September 2000 with the United Nations Millennium Declaration. In the Millennium Declaration, world leaders committed their nations to a new global partnership to reduce extreme poverty and set out a series of time-bound goals (with a deadline of

2015), that have become known as the Millennium Development Goals. Significant progress has been made toward achieving some of the goals, but many will not be met primarily because promised funding has not materialised. (This at the same time that military spending has been increasing globally.) The amounts needed to fund these goals are not small (see facing page) but they are only a tiny fraction of global military spending. In fact, the World Bank estimates that the total cost of achieving the Millennium Development Goals would be \$40 billion to \$60 billion (spent each year for the next five years). That represents only three to four percent of global military spending annually.

Arms Production and Transfers

GLOBAL ARMS PRODUCTION, like global military spending, is growing. According to SIPRI, arms sales by the 100 largest arms-producing companies globally (excluding China) totaled \$347 billion in 2007, an increase of 11 percent in nominal terms and five percent in real terms over 2006. Arms sales, like arms expenditures, are highly concentrated. Just 44 United States companies accounted for 61 percent of the combined arms sales of the top 100 companies. Thirty-two Western European companies accounted for an additional 31 percent.

In the years 2003 to 2007, approximately 79 percent of the volume of exports of major conventional weapons was provided by the five largest suppliers: the United States, the Russian Federation, Germany, France and the United Kingdom. The largest recipient countries in the period 2004 to 2008 were China, India, the United Arab Emirates, South Korea and Greece. China has been the largest importer of conventional weapons for several years.

According to SIPRI, the estimated value of the international arms trade in 2006 was \$45.6 billion.

The arms trade is tremendously profitable, but in the United States, for example, it provides little benefit to taxpayers. This is

The Cost of Achieving Millennium Development Goals

GOAL Halve Extreme Poverty and Hunger

Halve the proportion of people who live on less than \$1 per day and who suffer from hunger

COST \$39-54 billion

PERCENTAGE OF GLOBAL MILITARY SPENDING 2.6%-3.7%

GOAL Promote Universal Education and Gender Equality

Achieve universal education and eliminate gender disparity in education

COST \$10-30 billion

PERCENTAGE OF GLOBAL MILITARY SPENDING 0.7%-2.0%

GOAL Promote Health

Reduce by 2/3 the under-five mortality rate, reduce by 3/4 the maternal mortality rate, reverse the spread of HIV/AIDS

COST \$20-\$25 billion

PERCENTAGE OF GLOBAL MILITARY SPENDING 1.4%-1.7%

GOAL Environmental Sustainability

Halve the proportion of people without access to potable water, improve the lives of 100 million slum dwellers

COST \$5-\$21 billion

PERCENTAGE OF GLOBAL MILITARY SPENDING 0.3%-1.4%

JUST ONE MORE FIGURE TO CONSIDER: The \$1,464 billion spent on global military expenditures in one year would fund the United Nations regular budget at current levels for 732 years.

SOURCE: The World Bank, "The Costs of Attaining the Millennium Development Goals". *Note: The cost is in billions of U.S. dollars. When all the figures are added up they are significantly more than the \$40 to \$60 billion estimated to attain all goals. Because of significant overlap between the goals, they are substantially more expensive to achieve separately than together.

Financial Value of Global Arms Exports

World Total	\$45.628 billion
United States	\$14.008 billion
Russian Federation	\$6.500
France	\$5.061
United Kingdom	\$3.792
Israel	\$3.000

SOURCE: Stockholm International Peace Research Institute.
Amounts are in fiscal year 2006 U.S. dollars.

because defence companies in the United States are in many cases receiving huge tax breaks and government subsidies. According to the World Policy Institute, more than half of all United States weapons sales are subsidised by United States taxpayers rather than by the foreign governments purchasing the arms. During 1996, the United States Government spent \$7.9 billion to help companies secure just over \$12 billion in new international arms sales.

For More Information

Stockholm International Peace Research Institute

www.sipri.org

Center for Arms Control and Non-Proliferation

www.armscontrolcenter.org

Bonn International Center for Conversion

www.bicc.de

Federation of American Scientists

www.fas.org

CHAPTER 3

Nuclear Weapons

“*I KNOW NOT* with what weapons World War III will be fought, but World War IV will be fought with sticks and stones.”

ALBERT EINSTEIN

NUCLEAR WEAPONS ARE THE MOST DANGEROUS WEAPONS on earth. A single bomb has the potential to destroy entire cities, kill millions and contaminate air, land and water for many miles around the original blast site for thousands of years. In the event of a major nuclear war, all of civilization is threatened, by the direct effects of the nuclear blasts and the resulting radiation, and by the *nuclear winter* that could potentially result when enormous clouds of dust are thrown into the atmosphere.

Because their effects are so widespread and devastating, nuclear weapons can never really be used in a narrowly “targeted” way, nor can their use be said to achieve “victory” in any rational sense. Although nuclear weapons have been used in war only twice – by the United States in Hiroshima and Nagasaki in 1945 – the potential for their use, whether intentional or accidental, by States or by terrorists, remains as long as such weapons continue to exist.

How They Work

NUCLEAR WEAPONS RELEASE enormous amounts of energy through either fission (the splitting of heavy atoms such as uranium or plutonium in a chain reaction) or fusion (the combining of isotopes of a light element such as hydrogen). The nuclear bombs

that destroyed Hiroshima and Nagasaki were simple fission weapons that used highly-enriched uranium (HEU) and plutonium, respectively. Most of the thermonuclear weapons in today's arsenals would explode with a force roughly eight to 100 times larger than the bombs dropped on Hiroshima and Nagasaki (which averaged the equivalent of 18,000 tons of TNT). They typically contain both HEU and plutonium. The deployed warheads are primarily on long-range land- or submarine-based ballistic missiles that can deliver the warheads thousands of miles with great accuracy.

For those seeking to make nuclear weapons, the production of fissile materials (most commonly HEU and plutonium) is the main technical challenge. The low-enriched uranium (LEU) used to power the majority of the world's nuclear power plants is enriched to about 3.5 percent U-235 and cannot be used as material for a bomb in this state. Weapons-grade uranium, on the other hand, must be highly-enriched to a concentration of over 90 percent U-235 (in specially designed centrifuges) to be suitable for bomb making.

Plutonium, however, need not be "enriched". Plutonium of almost any isotopic composition can be used to make nuclear weapons. (Plutonium does not occur naturally, but is a byproduct of nuclear power generation in nuclear reactors and is recovered through chemical reprocessing.)

The amount of fissile material needed to make a nuclear weapon is not large. The International Atomic Energy Agency (IAEA) defines a "significant quantity" of fissile material as the amount required to make a first-generation bomb of the Nagasaki type. The significant quantities are 25 kilograms of U-235 contained in HEU and eight kilograms of plutonium. Advanced fission weapons may contain perhaps only half as much material. (According to the International Panel on Fissile Materials, as of 2008, global stocks of HEU totaled approximately 1670 +/- 300 metric tons, and global stocks of separated plutonium totaled approximately 500 metric tons, enough to produce tens of thousands of new weapons.)

World Nuclear Forces

THE NUMBER OF NUCLEAR WEAPONS WORLDWIDE peaked in the mid-1980s at around 70,000 warheads. With the Cold War ended, the number of nuclear weapons has been significantly reduced, yet they continue not only to exist, but also to be central to the security doctrines of those States that possess them.

At the beginning of 2009, there were almost 8,400 operational nuclear weapons globally, according to the Stockholm International Peace Research Institute. Several thousand of these are kept on high alert, ready to be launched within minutes. In total, there were more than 23,000 nuclear warheads (operational, spares, active and inactive storage, and intact warheads scheduled for dismantlement).

Deployed Nuclear Warheads 2009

Country	Strategic Warheads	Non-Strategic Warheads	Total Deployed
United States	2202	500	2702
Russian Federation	2787	2047	4834
United Kingdom	160	--	160
France	300	--	300
China	186	--	186
India	--	--	60-70
Pakistan	--	--	60
Israel	--	--	80

		Total	8,392

SOURCE: SIPRI Yearbook of Armaments, 2009. All figures are approximate.

There are generally believed to be nine States that possess nuclear weapons: the United States, the Russian Federation, the United Kingdom, France, China, India, Pakistan, the Democratic People's Republic of Korea (DPRK) and Israel. Five of these – the United States, the Russian Federation, the United Kingdom, France and China – are recognised as nuclear-weapon States under the Nuclear Non-Proliferation Treaty (NPT).

The **United States** and the **Russian Federation**, with a total of more than 7,500 deployed warheads, possess the vast majority of the world's nuclear arsenal (nearly 90 percent of deployed weapons). Since the end of the Cold War, the two countries have negotiated a series of bilateral treaties aimed at reducing the number of nuclear weapons deployed by each. Talks to renew or replace these treaties are ongoing in 2009.

According to the International Panel on Fissile Materials (IPFM), as of 2008, the **United States** and the **Russian Federation**, along with the **United Kingdom**, **France** and the **DPRK**, had officially announced an end to their production of fissile materials for weapons, while **China** had indicated this unofficially. (The status of the DPRK's fissile materials production, however, is unknown.)

India and **Pakistan** have not joined the NPT and remain outside its safeguards and obligations. Both India and Pakistan have tested nuclear weapons and are believed to be continuing to develop fissile materials, according to the IPFM, as well as new missile systems capable of delivering nuclear weapons.

Israel is generally believed to possess nuclear weapons and also remains outside the NPT. Little is known officially about its nuclear weapons programme. Israel may be producing fissile materials for use in nuclear weapons, according to the IPFM.

The **Democratic People's Republic of Korea** (DPRK) claimed in 2005 to have developed a nuclear weapon and conducted nuclear tests in 2006 and 2009. Very little is known publicly about the DPRK's nuclear programme. The Center for Defense Information reported in 2009 that the DPRK was suspected of having enough

weapons-grade plutonium for five to 12 weapons. Talks with the DPRK about dismantling its nuclear programme ground to a halt in 2009, and prospects for restarting talks are uncertain. On 12 June 2009, the Security Council condemned in the strongest terms the nuclear test conducted by the DPRK and imposed further sanctions on it through the passage of resolution 1874 (2009).

The Islamic Republic of Iran is suspected by some of having had a nuclear weapons programme in the past and (in 2009) is producing enriched uranium suitable for nuclear power generation. The IAEA has no evidence of Iran seeking to enrich uranium for a nuclear weapon. (As of 2009, its declared uranium stocks are all accounted for.) But the IAEA has not been given access to all facilities and documents that it needs to fully assess Iran's nuclear intentions. The Security Council has acted a number of times to impose and expand sanctions on Iran, with apparently little deterrent effect. Iran, which is party to the NPT, insists that it is producing uranium for nuclear power generation only, its right under the NPT.

Clear and Present Danger

THE EXISTENCE OF NUCLEAR WEAPONS represents a clear and present danger to humanity. The spread of nuclear know-how only adds to this danger. "In 1970", writes the International Atomic Energy Agency's Director General, Mohamed ElBaradei, "it was assumed that relatively few countries knew how to acquire nuclear weapons". But now, Mr. ElBaradei, continues, "with 35-40 countries in the know by some estimates, the margin of security under the current non-proliferation regime is becoming too slim for comfort". In addition, according to the Nuclear Threat Initiative, more than 50 States each possess more than five kilograms of weapons-usable fissile material.

While many of the world's nuclear stocks are adequately safeguarded, there are concerns that some, as well as other related nuclear materials, are insufficiently secured and vulnerable

to theft. The IAEA maintains an Illicit Trafficking Database (ITDB) on incidents of illicit trafficking and other unauthorized activities involving nuclear and radioactive materials. The Database tracks events that occurred intentionally or unintentionally, with or without crossing international borders, as well as unsuccessful or thwarted acts.

A mistaken launch of nuclear weapons is also still a real possibility, heightened by the fact that thousands of weapons remain on high alert, ready to be launched within minutes.

Even supposing theft or mistaken launch does not occur, the costs related to nuclear weapons (to research, develop, build, maintain, dismantle and clean up) are astronomical. The United States spends \$30 billion per year just to maintain its stocks. A Brookings Institute study in 1998 put the overall cost of the United States nuclear weapons programme between 1940 and 1998 at over \$5.5 trillion. And the United States Department of Energy reports that weapons activities have resulted in the production of more than 104 million cubic meters of radioactive waste.

“IT IS BECOMING CLEARER that nuclear weapons are no longer a means of achieving security; in fact, with every passing year they make our security more precarious.”

MIKHAIL GORBACHEV, *Wall Street Journal*, 31 January 2007

The Case for Global Zero

HENRY KISSINGER, SAM NUNN, WILLIAM PERRY AND GEORGE SHULTZ have argued on the op-ed page of the *Wall Street Journal* that we have reached a “nuclear tipping point”. The Nuclear Non-Proliferation Treaty (NPT), the cornerstone of the nuclear treaty regime, is in an increasingly fragile state, and the Comprehensive Nuclear-Test-Ban Treaty (CTBT) has yet to enter into force. Relations between the Russian Federation and the United States, which possess the overwhelming majority of the world’s nuclear

weapons, have been strained, particularly over United States missile defence plans. There is much we don't know about the world's nuclear programmes, in particular those of Iran, the Democratic People's Republic of Korea, India, Pakistan and Israel.

At this time of growing danger, there is also a growing movement for nuclear abolition, which includes not only disarmament activists globally, but also many current and former governmental leaders from across the political spectrum, all arguing that nuclear weapons do not now (if they ever did) address global security concerns; in fact, reliance on nuclear weapons is becoming increasingly hazardous and decreasingly effective.

THE ARGUMENTS FOR NUCLEAR WEAPONS ABOLITION ARE MANY, including the following:

THE USE OF NUCLEAR WEAPONS WOULD BE *IMMORAL*. Their effects would be both indiscriminate (it is unlikely they could be contained to battlefields) and catastrophic (their effects would almost certainly be felt for hundreds, perhaps thousands of miles from the original blast site and for hundreds, perhaps even thousands, of years into the future).

THE USE OF NUCLEAR WEAPONS WOULD BE *IMPRACTICAL*. It is difficult to see how such weapons could be used effectively against insurgent or paramilitary forces that are relatively small in number, highly mobile and quickly evolving. It also seems highly unlikely they could ever be used without massive civilian casualties.

THE USE OF NUCLEAR WEAPONS WOULD BE *INEFFECTIVE*. Nuclear weapons would seem to have no role in the fight against terrorism. They are not a deterrent. They cannot be used against terrorists in any effective way.

NUCLEAR WEAPONS POSE A GREATER *RISK* TODAY THAN ANY "*BENEFIT*" THEY MIGHT BE THOUGHT TO REPRESENT. When nu-

clear weapons are present there is always the risk of accidental launch. The risk of theft is also quite real. Terrorists are known to be attempting to acquire nuclear technology, materials and weapons, which could be better protected and secured.

THERE ARE A NUMBER OF GROUPS organising to achieve the goal of Global Zero. Please see Chapter 15 for more information about how you can become part of the global abolition movement.

Treaties

NUCLEAR NON-PROLIFERATION TREATY (NPT)

The NPT is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy, and to further the goal of achieving nuclear disarmament and general and complete disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States. Opened for signature in 1968, the Treaty entered into force in 1970. On 11 May 1995, the Treaty was extended indefinitely. A total of 190 parties have joined the Treaty, including the five nuclear-weapon States. More countries have ratified the NPT than any other arms limitation and disarmament agreement, a testament to the Treaty's significance. Review Conferences are held every five years to assess progress toward the implementation of the Treaty. (For more information about the NPT, see the next chapter.)

COMPREHENSIVE NUCLEAR-TEST-BAN TREATY (CTBT)

The CTBT, which bans all nuclear-weapons tests, opened for signature in September 1996 but has not yet entered into force. As of June 2009, it has been ratified by 148 countries but cannot take effect until the United States, China and seven other countries have ratified the pact. The Preparatory Commission for the Comprehensive Test Ban Treaty Organisation (CTBTO) maintains a monitoring

network of 337 facilities globally to verify that States Parties to the Treaty are fulfilling their obligations. (See the website of the CTBTO at www.ctbto.org for more information.)

BANNING THE PRODUCTION OF FISSILE MATERIAL

In December 1993, the United Nations General Assembly adopted by consensus a resolution calling for negotiation of a verifiable treaty banning the production of fissile materials for nuclear weapons. The job of negotiating that treaty goes to the Conference on Disarmament (CD), which has had the draft text of such a treaty before it for more than a decade. Work in the CD, however, has failed to progress in that time. In 2009, there is renewed hope that the CD will begin work negotiating a treaty, with the establishment of a new Working Group on the issue, but there are still significant hurdles to overcome, including whether such a treaty will be narrow in scope (ending production of fissile material, thus primarily affecting India and Pakistan) or comprehensive (addressing existing stocks). Questions also remain as to whether and how it can be verified that States are meeting their obligations under such a treaty. (See the website of the International Panel on Fissile Materials at www.ipfm.org for more information.)

NUCLEAR-WEAPON-FREE ZONES (NWFZ)

The establishment of Nuclear-Weapon-Free Zones is a regional approach to strengthen global nuclear non-proliferation and disarmament norms and consolidate international efforts towards peace and security. A Nuclear-Weapon-Free Zone is a specified region in which countries commit themselves not to manufacture, acquire, test or possess nuclear weapons. There are four NWFZs globally that are already in force: in Latin America and the Caribbean, Southeast Asia, the South Pacific, and Central Asia. A NWFZ in Africa is expected to come into force in the near future. Each treaty establishing a Nuclear-Weapon-Free Zone includes a protocol for the five nuclear-weapon States recognised under the NPT

(China, France, the Russian Federation, the United Kingdom, and the United States) to sign and ratify. These protocols, which are legally binding, call upon the nuclear-weapon States to respect the status of the zones and not to use or threaten to use nuclear weapons against treaty States Parties. (As of 2009, however, among the NWFZs, only the one in Latin America and the Caribbean had the full support of the five nuclear powers.) Mongolia has the distinction of being the first country to declare itself as the first single-state nuclear-weapon-free area and enjoys global recognition of its international security and nuclear-weapon-free status (NWFS).

For More Information

Federation of American Scientists

www.fas.org

Stockholm International Peace Research Institute

www.sipri.org

Center for Defense Information

www.cdi.org

Arms Control Association

www.armscontrol.org

United Nations

www.un.org/disarmament

Union of Concerned Scientists

www.ucsusa.org

Natural Resources Defense Council

www.nrdc.com

Nuclear Files.org (Nuclear Age Peace Foundation)

www.nuclearfiles.org

United Nations Cyberschoolbus

<http://cyberschoolbus.un.org/dnp/sub2.asp?ipage=nuclearweapons>

CHAPTER 4

The Nuclear Non-Proliferation Treaty

“*EACH OF THE PARTIES to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a Treaty on general and complete disarmament under strict and effective international control.*”

ARTICLE VI, Nuclear Non-Proliferation Treaty

THE NUCLEAR NON-PROLIFERATION TREATY (NPT), a cornerstone agreement in efforts to regulate nuclear weapons globally, entered into force in 1970. 190 countries have joined the Treaty, including the five States recognised under the Treaty as possessing nuclear weapons: China, France, the Russian Federation, the United Kingdom and the United States. Three countries, which have or are suspected of having nuclear weapons programmes, are currently outside the NPT: India, Israel and Pakistan. The Democratic People’s Republic of Korea announced its withdrawal from the Treaty in 2003 and its legal status in the Treaty remains uncertain.

Under the NPT, all Treaty parties pledge to negotiate in good faith to rid the world of nuclear weapons and to work toward a treaty on general and complete disarmament. The non-nuclear-weapon States commit not to develop, acquire or possess nuclear weapons.

The NPT stipulates that States Parties meet every five years to assess the implementation of the Treaty. The 1995 meeting agreed to extend the Treaty indefinitely (along with several other

decisions, discussed below). The 2000 Review Conference, while it broke no new ground, was a relative success, reaffirming past commitments and developing “13 practical steps”, an agenda for achieving nuclear disarmament. The 2010 review meeting will be held in New York City in May. (See below for more details of the Review Conferences.)

“**SOME ARGUE THAT the spread of these [nuclear] weapons cannot be stopped, cannot be checked — that we are destined to live in a world where more nations and more people possess the ultimate tools of destruction. Such fatalism is a deadly adversary, for if we believe that the spread of nuclear weapons is inevitable, then in some way we are admitting to ourselves that the use of nuclear weapons is inevitable.**”

BARACK OBAMA, United States President, Prague, April 5, 2009

The Three Pillars

THE NPT has three “pillars” or main areas: *non-proliferation* (stopping the spread of nuclear weapons and related technology), *disarmament* (getting rid of existing nuclear arsenals), and the *right to peacefully use nuclear energy* (including access to nuclear technology, which is the right of all States Parties to the NPT).

Non-proliferation

Since coming into force in 1970, the NPT has largely been successful, although not perfect, at containing the spread of nuclear weapons globally. India and Pakistan, which never signed the NPT, have developed and declared nuclear-weapons programmes. Israel, which also remains outside the Treaty, is generally believed to possess nuclear weapons. The Democratic People’s Republic of Korea, which announced its withdrawal from the Treaty in 2003, claimed to have developed a nuclear weapon in 2005. It conduct-

ed a nuclear test in 2006 and again in 2009. The Islamic Republic of Iran, which remains a party to the NPT, is suspected by some of having had a nuclear weapons programme in the past, but the intentions of its current nuclear programme (whether for weapons development or nuclear power generation) cannot be fully assessed until it provides complete access to its facilities and documents, as requested by the International Atomic Energy Agency (IAEA).

Disarmament

Efforts at nuclear disarmament by the five nuclear-weapon States have been uneven and incomplete. The United States and the Russian Federation, which possess the vast majority of the world's nuclear weapons, have substantially reduced their nuclear arsenals since the Cold War. Global nuclear arsenals peaked in the mid-1980s at around 70,000 warheads. Today the total number of warheads is around 23,000, with nearly 8,400 of those operational. But efforts to focus on further reductions largely stalled during the early 2000s, with relations between the Russian Federation and the United States becoming increasingly strained in large part over United States plans to deploy missile defence systems in Eastern Europe, the Russian Federation's "near abroad." However, in May 2009, the Russian Federation and the United States started negotiations on further nuclear weapons cuts, mindful that the START I Treaty between the two expires in December 2009.

While the number of nuclear weapons has decreased, the potential to destroy the planet many times over has not. Several thousand nuclear weapons are still kept on high alert, ready to be launched within minutes. As Sergio Duarte, United Nations High Representative for Disarmament, points out, vast nuclear arsenals remain "some 40 years after the NPT committed each of its parties to pursue 'at an early date' and 'in good faith' negotiations on nuclear disarmament, [and] there is still no sign of the infrastructure required to achieve nuclear disarmament — no operational

plans, deadlines, government disarmament agencies, budgets, and detailed domestic legislation. The doctrines of nuclear deterrence not only persist, but have been adopted by new countries” (*Disarmament Times*, Spring 2008).

The Use of Nuclear Energy for Peaceful Purposes

The third pillar of the Treaty relates to the inalienable right of all Parties to the Treaty to develop, research, produce and use nuclear energy for peaceful purposes without discrimination. The Parties also undertake to facilitate and have the right to participate in the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy and are encouraged to consider the needs of the developing parts of the world in these matters.

An Increasingly Fragile State

THE NUCLEAR NON-PROLIFERATION TREATY is facing many challenges as countries approach the 2010 Review Conference to assess implementation of the Treaty. Its members have for many years been divided over what their priorities should be and how to best balance non-proliferation and disarmament obligations under the Treaty. The source of greatest tension is longstanding disagreement whether *non-proliferation* (with its focus on the non-nuclear-weapon States) or *disarmament* (with its focus on the nuclear-weapon States) should take precedence. Nuclear-weapon States have to a great extent driven the agenda thus far, and their focus, unsurprisingly, has been on stopping the spread of nuclear weapons and capabilities to others. But non-nuclear-weapon States (along with many civil society activists globally) have countered that the agenda of the nuclear-weapon States is too narrowly focused and fails to also address their obligations under the NPT to plan for and achieve nuclear disarmament.

There is qualified optimism that new political realities and increased focus on the goal of abolition of nuclear weapons glob-

ally will culminate in a productive 2010 Review Conference, but a positive outcome is by no means guaranteed. Much will depend on the willingness of nuclear-weapon States to not only talk about nuclear disarmament, but also to implement their commitments.

1995 Review Conference

THE 1995 REVIEW CONFERENCE, in addition to the usual work of reviewing the NPT, was charged with deciding whether and how the Nuclear Non-Proliferation Treaty should be extended: for one period, for a rolling set of periods, indefinitely or not at all.

States Parties finally agreed on the indefinite extension of the Treaty, linking that to two other decisions and a resolution. In their two decisions they agreed to strengthen the process leading up to Review Conferences and they agreed to a programme of action for achieving non-proliferation and disarmament. The latter called for conclusion of the Comprehensive Nuclear-Test-Ban Treaty by September 1996, immediate negotiations on a treaty to ban fissile material production, and “determined pursuit” of nuclear disarmament and general and complete disarmament.

The Conference also passed a resolution on the Middle East, supporting the establishment of a zone free of all weapons of mass destruction in the region and calling on Israel (as the only non-NPT country in the region) to accede to the NPT.

2000 Review Conference

WHEN THE SIXTH REVIEW CONFERENCE convened in New York in April 2000, expectations were low. The three preparatory meetings prior to the conference had achieved little, and every nuclear-weapon State continued to affirm the central strategic importance of its nuclear weapons. Adding to the pessimism was the fact that the United States Senate had rejected the Comprehensive Nuclear-Test-Ban Treaty (CTBT) just one year prior to the conference (in 1999), and Washington was once again considering a national missile defence system (which would violate its Anti-Ballistic Missile

Treaty with the Russian Federation). Nuclear tests by India and Pakistan, although not Treaty members, also had repercussions on the Conference, highlighting the need for universality.

The Conference, however, did not fail, but made some small steps forward. Under intense pressure (particularly from non-nuclear-weapon States) to avoid a breakdown, nuclear-weapon States made an unequivocal undertaking “to accomplish the

13 Practical Steps toward Nuclear Disarmament 2000 NPT Review Conference

1. **Sign** the Comprehensive Nuclear-Test-Ban Treaty
2. **Stop** testing nuclear weapons
3. **Negotiate** a Fissile Material Cutoff Treaty
4. **Establish** a body within the Conference on Disarmament to deal with nuclear disarmament
5. **Agree** nuclear disarmament must be irreversible
6. **Abolish** nuclear weapons
7. **Uphold** existing treaties (including START II, START III, ABM)
8. **Implement** and complete the Trilateral Initiative between the United States, the Russian Federation and IAEA
9. **Implement** a step-by-step approach to achieve nuclear disarmament
10. **Place** excess fissile materials under IAEA control
11. **Reaffirm** general and complete disarmament, under effective international control, as the ultimate objective of States
12. **Report** regularly on progress toward nuclear disarmament.
13. **Further develop** verification capabilities to assure compliance with nuclear disarmament agreements

total elimination of their nuclear arsenals.” The Conference also recognised the need for “legally binding security assurances” by nuclear-weapon States to non-nuclear-weapon States that the former would not use nuclear weapons against the latter. The Conference also adopted a set of 13 “practical steps” toward nuclear disarmament (see previous page).

While the many compromises reached by the States Parties at the Conference represented no major breakthroughs, the show of flexibility and compromise was significant and the outcome was probably the best that was politically possible at the time.

The 2005 Review Conference ended without agreement on any substantive aspect of the NPT.

For More Information

For detailed information about the NPT and NPT Review Conferences, go to the website of **Reaching Critical Will**, a project of the Women’s International League for Peace and Freedom, **www.reachingcriticalwill.org**.

More information about the NPT is also available at:

Arms Control Association

www.armscontrol.org

NGO Committee on Disarmament, Peace and Security

<http://disarmtimes.org>

Roughly **44 percent** of
the nearly **70,000** metric
tonnes of declared **chemical**
warfare agents have been
destroyed as of July 2009.

ORGANISATION FOR THE PROHIBITION
OF CHEMICAL WEAPONS

CHAPTER 5

Chemical Weapons

THE USE OF CHEMICAL WEAPONS dates to antiquity but the modern use of such weapons begins with World War I, when both sides to the conflict used poisonous gas to inflict agonising suffering and cause significant battlefield casualties. Chemical weapons have caused almost 1.3 million casualties globally.

The use of chemical weapons during World War I was not particularly sophisticated or specialised. Such weapons consisted basically of well known commercial chemicals put into standard munitions such as grenades and artillery shells. Chlorine, phosgene (a choking agent) and mustard gas (which inflicts painful burns on the skin) were among the chemicals used. The results were indiscriminate and often devastating. Nearly 100,000 deaths resulted.

As a result of public outrage (and because the weapons were often less dependable than conventional weapons) the Geneva Protocol, prohibiting the use of chemical weapons in warfare, was signed in 1925. While a welcome step, the Protocol had a number of significant shortcomings, including the fact that it did not prohibit the development, production or stockpiling of chemical weapons. Also problematic was the fact that many States that ratified the Protocol reserved the right to use prohibited weapons against States that were not party to the Protocol or as retaliation in kind if chemical weapons were used against them.

In the inter-war period, notes the Federation of American Scientists, chemical weapons were used by two signatories of the Geneva Protocol (by Italy in northern Africa and by Japan in China). Then in World War II, poisonous gases were used to kill millions in Nazi concentration camps and chemicals were used in Asia (al-

though they were not used on European battle fields). A number of countries that did not employ chemical weapons on the battlefield during the war continued to develop and amass huge quantities of the munitions during this time.

The Cold War period saw significant development, manufacture and stockpiling of chemical weapons. By the 1970s and 80s, an estimated 25 States were developing chemical weapons capabilities. But since the end of World War II, chemical weapons have reportedly been used in only a few cases.

Main Types of Chemical Weapons

NERVE AGENT

BLISTERING AGENT

CHOKING AGENT

INCAPACITATING AGENT

Chemical Weapons Convention

THE DANGER REPRESENTED by chemical weapons, even if unused, led governments to negotiate the Chemical Weapons Convention (CWC), which was adopted in 1992 and entered into force in 1997. The CWC bans the development, production, stockpiling and use of chemical weapons. It requires States Parties to destroy all stocks of chemical weapons within 10 years of its entry into force (by 2007) with a possible extension of up to five years (2012).

To ensure against the clandestine development of prohibited weapons, the CWC sets in place a stringent system of inspections, carried out by the Organisation for the Prohibition of Chemical Weapons (OPCW), which also ensures the safe destruction of

weapons.

The prohibition of the acquisition, production and use of chemical weapons set in place by the Convention has been a success. However, challenges remain, most importantly the slow rate of destruction of vast chemical arsenals by the United States and the Russian Federation. High costs as well as environmental concerns have contributed to these delays. (Both the Russian Federation and the United States missed the 2007 deadline for destroying chemical weapons stockpiles and were given a new deadline of 2012. Some observers have estimated that the Russian Federation and the United States will not be able to comply with the 2012 deadline.) Other challenges to the CWC include the fact that several States have not joined the Convention. (As of May 2009, 188 States had ratified the Convention. To check the current status, go to www.opcw.org.) Another concern is that the CWC has only limited applicability to terrorists and non-State actors, which may represent the biggest threat today regarding chemical weapons.

Chemical Terrorism

ALTHOUGH STATES have been the major users of chemical weapons, current concerns focus primarily on the possible use of these weapons by terrorists.

In 1994 and 95, the Japanese sect Aum Shinrikyo used sarin gas in attacks on civilians in Japan. Despite extensive expertise and financing, however, Aum Shinrikyo had difficulty stabilising large quantities of sarin. Faced with such difficulties, terrorists in the future might be more likely to target chemical plants or transport vehicles, the effects of which could be far more deadly.

For More Information

Acronym Institute

www.acronym.org

Arms Control Association

www.armscontrol.org

The Center for Arms Control and Non-proliferation

www.armscontrolcenter.org

Chemical Weapons Working Group

www.cwwg.org

Federation of American Scientists

www.fas.org

The Harvard-Sussex Program

www.sussex.ac.uk/units/spru/hsp

Monterey Institute of International Studies

<http://cns.miis.edu>

Nuclear Threat Initiative

www.nti.org

Organisation for the Prohibition of Chemical Weapons

www.opcw.org

Reaching Critical Will

www.reachingcriticalwill.org

Stimson Center

www.stimson.org

Stockholm International Peace Research Institute

www.sipri.org

Weapons of Mass Destruction Commission

www.wmdcommission.org

CHAPTER 6

Biological Weapons

BIOLOGICAL WARFARE and bioterrorism involve the deliberate use of biological agents as weapons to cause disease outbreaks. The use of such weapons could cause immense harm, panic, widespread disruption and even death. Rapid advances in the life sciences and the globalization of biotechnology make this an area of growing concern.

History

THE USE OF POISONOUS SUBSTANCES – biological and chemical agents – as weapons of war has been prohibited since before World War I, but that did not stop countries from using poisonous gas during that war. In 1925, the Geneva Protocol banned the use of both chemical and biological weapons, but it contained a number of weaknesses. Most importantly, the Protocol prohibited only the use of biological weapons in war, but did not ban their development, production or stockpiling. Also problematic was the fact that many states that signed the Protocol reserved the right to retaliate if attacked with prohibited biological weapons.

Despite the weaknesses of the Geneva Protocol, the use of biological weapons during World War II was limited. Japan, which reportedly used biological weapons in attacks and experiments, is a prominent exception. While other major powers did not use biological weapons during the war, many did conduct biological warfare research.

During the Cold War period, an increasing number of countries developed biological warfare research programmes, the largest of which were conducted by the then Soviet Union and the United

States. Anthrax, smallpox, plague and tularemia were among the diseases made to be used as weapons. It was not until the late 1960s that initiatives were made to control biological weapons. In 1969, United States President Richard Nixon announced the unilateral dismantlement of the United States offensive bioweapons programme. As a result of prolonged efforts by the international community to establish a new instrument that would supplement the 1925 Geneva Protocol, the Biological Weapons Convention was opened for signature in 1972. The Convention entered into force in 1975.

TODAY NO STATE ACKNOWLEDGES that it possesses biological weapons or that it has a programme to develop such weapons. The stigma attached to using such weapons and their prohibition under the Biological Weapons Convention (BWC) have been strong deterrents. They have not, however, provided complete protection from bioweapons development. It was alleged in the early 1990s (by Soviet defectors) that the former Soviet Union had conducted a vast, clandestine biological weapons programme in violation of the BWC. Iraq, also a signatory to the Convention, was found (in 1995) to have had a considerable undeclared biological warfare programme, which relied to a large extent on imported strains and materials supplied by other countries.

The Biological Weapons Convention

AS A RESULT OF GRAVE CONCERN about the potential harm biological weapons could inflict, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction was opened for signature in 1972 and entered into force in 1975. The Biological Weapons Convention (BWC) bans the development, production, stockpiling and acquisition of biological and toxin weapons and requires the destruction of such weapons or delivery means. The Convention has 163 States Parties and 13 signa-

Types of Biological Weapons

BIOLOGICAL WEAPONS can be subdivided several ways, including:

By the type of agent that causes the disease; e.g., bacteria, virus, toxin

By the type of effect; e.g., disease that can be transmitted (contagious) or disease that affects only those directly exposed

By symptoms; e.g., death, incapacitating, changing behaviour

SOURCE: "Weapons of Terror," Weapons of Mass Destruction Commission, 2006.

tories (as of June 2009). There are 19 States which have neither signed nor ratified the Convention. (To see a list of States Parties and check the current status of the BWC, go to www.unog.ch.) Review conferences are held every five years to monitor implementation of the Convention.

The BWC is an important step forward, but is considered by many to be a relatively weak instrument. Unlike the Chemical Weapons Convention, the BWC has no monitoring and verification mechanism and lacks any measures for investigating countries suspected of non-compliance. Some steps have been taken to try to strengthen this aspect of the Convention, but they have fallen short. A 2001 draft protocol that would have required States Parties to declare relevant facilities and submit to inspections (of both declared and suspected sites) was rejected by the United States administration at the time. The Sixth Review Conference of the

BWC (held in Geneva in 2006) established the Implementation Support Unit (ISU), to assist States Parties with the implementation of the Convention, but it cannot monitor compliance or carry out inspections, serving primarily as an information clearinghouse. (In 2011, States Parties to the Convention will decide whether to renew ISU's mandate.)

The Threat of Bioterrorism

DESPITE THE FACT that biological warfare agents have been rarely used in modern times and are prohibited, there are a number of challenges facing the global community regarding such weapons. There are a number of reasons why the greatest threat posed by biological warfare agents today may come in the form of terrorism and their possible use by other non-State actors.

Biological warfare agents are relatively cheap to make when compared to other weapons of mass destruction. In fact, biological weapons are sometimes called “the poor man’s atom bomb”. According to *Reaching Critical Will*, one analysis estimated the cost of civilian casualties to be \$2,000 per square kilometer with conventional weapons, but only \$1 per square kilometer with biological weapons. Biological agents are relatively easy to make and can be found in nature. Given these facts, biological weapons could be attractive to terrorists. (It should be noted, however, that there are other challenges, particularly in turning bioagents into weapons for large-scale use. More on this below.)

The facilities for researching and producing bioagents are easier to hide than the facilities for producing other weapons of mass destruction, making it more likely that a State or non-State actor (such as a terrorist group) could conduct a bioweapons programme undetected. Also, the equipment involved in the production of biological warfare agents, such as fermenters, has many legitimate civilian uses.

Despite these factors, experts are divided on the magnitude of the bioterrorist threat, according to the *Weapons of Mass De-*

struction Commission (WMDC). Some believe the threat is or will soon be comparable to that posed by nuclear weapons. Others, however, are skeptical about the probability of large-scale use of biological warfare agents by terrorists given the technical difficulties of managing and delivering the weapons. Past experience has revealed these difficulties. Non-State actors in the United States have used biological agents on multiple occasions (1984, 2001, 2003 and 2004), killing several people, but the incidents, while alarming and chaotic, were by and large localised and contained. The Aum Shinrikyo cult in Japan also attempted to use biowarfare agents but failed on at least 10 occasions, this despite considerable technical resources and funding apparently in excess of \$1 billion. (They had limited success, however, in using sarin gas, a chemical warfare agent.) However, as the WMDC points out, past failures by terrorists should by no means be taken to mean that future attempts will also be unsuccessful.

Given these challenges it is of the utmost importance that the Biological Weapons Convention be strengthened and that universal membership to the Convention be vigorously pursued. It is also vital that the public receive more information about biological warfare threats and what to do in emergencies.

For More Information

The Acronym Institute

www.acronym.org

Arms Control Association

www.armscontrol.org

The Center for Arms Control and Non-proliferation

www.armscontrolcenter.org

Federation of American Scientists

www.fas.org

The Harvard-Sussex Program

www.sussex.ac.uk

Monterey Institute of International Studies

<http://cns.miis.edu>

Nuclear Threat Initiative

www.nti.org

Reaching Critical Will

www.reachingcriticalwill.org

Stimson Center

www.stimson.org

Stockholm International Peace Research Institute

www.sipri.org

Weapons of Mass Destruction Commission

www.wmdcommission.org

CHAPTER 7

Missiles and Missile Defence

ROCKETS AND MISSILES encompass an extremely diverse class of weapons. A rocket is a self-propelled vehicle without a guidance system (once it is fired it cannot be redirected). Most rockets have a relatively short range and can carry only small payloads. A missile is a self-propelled, guided or unguided projectile designed to deliver a weapon or other payload. Missiles are typically powered by rockets or jet engines. Their range varies from a few hundred kilometers (short range) to more than 5,500 kilometers (intercontinental). Some missiles are relatively crude instruments, while others are highly sophisticated. Their potential payloads range from a few kilograms of conventional weapons to megaton nuclear warheads.

Ballistic missiles, which have been the focus of more intense attention in recent years, are missiles that follow a trajectory determined by ballistics (by gravity and aerodynamic drag). Ballistic missiles are primarily surface launched (from the ground, shipboard or from underwater). **Cruise missiles**, on the other hand, generate lift (usually propelled at low altitudes by a jet engine) and are primarily launched from the air, surface ships or submarines. (Man-portable air defence systems – or shoulder-fired missiles, as they are more colloquially known – could be thought of as a third type of missile and are discussed briefly below.)

MISSILES ARE GENERALLY CATEGORISED by launch platform (typically either surface, such as ground or water, or air), then subcategorised by range (see box next page) and by target (for example, anti-ship, anti-tank, anti-aircraft, anti-ballistic, anti-satellite).

Categorising Ballistic Missiles

MISSILES are subcategorised by range:

Short-range ballistic missiles (SRBM) travel less than 1,000 kilometers (approximately 620 miles)

Medium-range ballistic missiles (MRBM) travel 1,000 to 3,000 kilometers (approx. 620-1,860 miles)

Intermediate-range ballistic missiles (IRMB) travel 3,000 to 5,500 kilometers (1,860-3,410 miles)

Intercontinental ballistic missiles (ICBM) travel more than 5,500 kilometers

Missiles pose a number of concerns. Short-range and less advanced missiles in particular are relatively easy to acquire and use. Increasingly such missiles are being sought and used by low-tech States and non-State actors against government forces and civilian populations. Meanwhile, technically advanced States are developing ever more sophisticated intercontinental ballistic missiles capable of delivering nuclear weapons over long distances with increasing accuracy and little warning. The potential for a missile arms race at both ends of the spectrum is present.

Proliferation is of growing concern globally, but reaching consensus on how (or even if) to regulate missiles has proven an extremely complicated issue. Currently there are no multilateral treaties that deal with missiles and their proliferation, and discussions about missiles in all their aspects at the United Nations have thus far resulted in no concrete policy recommendations. Part of what makes missiles such a difficult topic is the fact that they (un-

like some other weapons, such as chemical or biological weapons) can be seen as a legitimate component of a State's self-defence (the right to which is specifically recognised under the United Nations Charter). Discussions at the United Nations are ongoing in an attempt to find areas of consensus that might be addressed.

Ballistic Missiles

THE FIRST MISSILES to be used operationally were the German V1 and V2 in World War II. Within two decades after the end of the war, missile technology had spread to the five nuclear-weapon States (China, France, the Russian Federation, the United Kingdom and the United States), all of whom had the capability to use nuclear weapons anywhere on the globe. Today more than 30 States possess ballistic missile technology (over 150 kilometers in range) and the number of ballistic missiles worldwide is estimated at 120,000 (according to the report of the United Nations Secretary-General, "The Issue of Missiles in All Its Aspects," July 2002). However, fewer than a dozen States possess medium- or longer range ballistic missiles (China, France, India, the Islamic Republic of Iran, Israel, the Democratic People's Republic of Korea, Pakistan, the Russian Federation, the United Kingdom and the United States), and only the five nuclear-weapon States are believed to have long-range or intercontinental ballistic missiles capable of carrying nuclear payloads.

Cruise Missiles

MUCH PUBLIC ATTENTION has been focused on ballistic missiles, but some experts believe cruise missiles, which have been much more widely used in military interventions since the end of the Cold War, pose a more serious threat. Cruise missiles have several advantages over ballistic missiles, including that they are much cheaper to produce, easier to acquire and maintain, require less training, perform with more accuracy, and are more reliable. All of these reasons have contributed to the proliferation of cruise mis-

siles which (according to the United States Congressional Research Service) are produced in 19 states and owned by some 75.

Man-Portable Air Defence Systems

MAN-PORTABLE AIR DEFENCE SYSTEMS (MAN-PADS), or shoulder-fired missiles, are of particular concern. The Federation of American Scientists (FAS) characterizes MAN-PADS as an “imminent and acute threat” to military aircraft and civilian airliners. Since their development in the 1950s, hundreds of thousands of MAN-PADS have been manufactured worldwide. According to FAS, there are an estimated 800,000 MAN-PADS globally, many thousands of which are thought to be on the black market and therefore accessible to terrorists and other non-State actors. MAN-PADS are attractive to terrorists and insurgents for a number of reasons: They are lethal, highly portable and concealable, inexpensive, and relatively easy to use with proper training.

Missile Arms Control Regimes

TODAY PROLIFERATION OF MISSILE TECHNOLOGY is a critically important issue, particularly as it is linked with the proliferation of nuclear weapons. Missiles can be exceptionally accurate and efficient means of delivering nuclear weapons long distances without warning. Without such missiles, which are extremely difficult to defend against, nuclear weapons lose a significant part of their potential for mass destruction.

Missiles have been addressed in bilateral treaties between the United States and the Soviet Union (and now the Russian Federation), but there is no multilateral treaty requiring missile disarmament. The measures that do exist are voluntary and informal and have significant shortcomings when it comes to regulating missiles globally. The two basic instruments are the **Missile Technology Control Regime** (MTCR) and the **International Code of Conduct Against Ballistic Missile Proliferation** (also called the Hague Code of Conduct or HCOC). The former was established in 1987 and has

34 participating States. Its aim is to coordinate export controls of missiles and missile technology. HCOC, which has 130 participating countries, seeks to build confidence among its parties through pre-launch notifications and other transparency measures.

TO LEARN MORE about MTCR (www.mtrc.info) and HCOC, go to the website of **Reaching Critical Will**, a project of the Women's International League for Peace and Freedom, at www.reaching-criticalwill.org.

Missile Defence

DEVELOPMENTS IN RECENT YEARS have fuelled support in some countries for constructing defences against missiles (sometimes called missile "shields"), notes the Weapons of Mass Destruction Commission in its report "Weapons of Terror." The WMD Commission makes particular note of developments in the Democratic People's Republic of Korea, the Middle East (particularly Iran and Israel), and in South Asia (Pakistan and India), as well as the continued development of missile systems by the NPT nuclear-weapon States. Proponents of missile defence cite the threat of missiles capable of carrying weapons of mass destruction as the primary reason for developing missile defence. But the development of missile defence systems themselves poses a significant risk of spurring a new arms race of ever-more sophisticated missiles (in an attempt to "beat" the shields), increased missile defence and perhaps even deployment of weapons in space.

The United States is the clear leader in missile defence globally, having spent \$110 billion between 1983 and 2008 to develop its missile defence capability. But several other States have limited missile defence capabilities, including the Russian Federation (with a "ring" missile defence system to protect Moscow), Israel and Japan. No country other than the United States has attempted to stretch its missile defence beyond its own borders.

The United States withdrew from the Anti-Ballistic Missile

Treaty (ABM Treaty) in 2002 to pursue missile defence, and has installed land-based systems in California and Alaska. (It should be noted that at this writing only China and the Russian Federation have the proven capability to launch ballistic missiles that could strike the continental United States, according to the Arms Control Association.)

The administration of George W. Bush also worked with the governments of Poland and the Czech Republic on plans to install missile defence systems in those two countries (the plans were not concluded before the end of President Bush's term), despite objections from the Russian Federation. (These United States actions were not inconsequential. They proved very detrimental to United States-Russian relations and prevented further progress on arms control by the two countries.)

The future of United States missile defence in Eastern Europe is uncertain under the Obama administration, which has been less enthusiastic about missile defence. As a presidential candidate, Barack Obama pledged to pursue missile defence only if it could be proven effective, a position he has not elaborated on early in his presidency. (The Obama administration FY 2010 budget reduces spending on missile defence by \$1.4 billion, to \$7.45 billion, down from \$8.85 billion in FY 2009. It also shifts focus away from long-range interceptors and toward tactical or theater missile defence.)

Having made such a big investment, what has the United States gained? United States missile defence systems have proven costly to develop and build (Victoria Samson in *Disarmament Times*, Winter 2007, puts the figure at \$10 billion per year), have been plagued by delays and cost overruns, and have succeeded under favorable testing conditions only about 50 percent of the time.

For More Information

Arms Control Association
www.armscontrol.org

Reaching Critical Will

www.reachingcriticalwill.org

United Nations Institute for Disarmament Research

www.unidir.org

**United Nations Secretary-General's report,
"The issue of missiles in all its aspects," (July 2006)**

<http://unidir.ch/pdf/activites/pdf2-act307.pdf>

Conventional weapons
receive less **attention** than
weapons of mass destruction; yet
they are the most **common**
type of **armament**
globally and historically the
most commonly **used** in
conflict.

CHAPTER 8

Introduction to Conventional Weapons

“**WHILE NUCLEAR WEAPONS THREATEN us with mass destruction, on a cumulative basis conventional weapons wreak tremendous death and destruction every day in conflicts across the globe. It is, therefore, vital to encourage responsible conduct in conventional weapons transfers. We must also explore ways to lessen the pressure on States to engage in conventional weaponry build-ups, while safeguarding the legitimate right to self-defence of all Member States.**”

BAN KI-MOON, United Nations Secretary-General, *The United Nations Disarmament Yearbook, 2007*

THE CATEGORY “CONVENTIONAL WEAPONS” includes a diverse range of weapons, perhaps more easily defined by what they are not (nuclear, chemical and biological weapons, which are called “unconventional”) than what they are. In practice, conventional weapons are commonly understood to include devices capable of killing, incapacitating or injuring mainly (though not exclusively) through explosives, kinetic energy or incendiaries. Conventional weapons include, but are not limited to, armoured combat vehicles (personnel carriers and tanks, for example), combat helicopters, combat aircraft, warships, small arms and light weapons, landmines, cluster munitions, ammunition and artillery. (Small arms and light weapons, landmines and cluster munitions will be discussed in more detail in the chapters immediately fol-

lowing this one.)

Conventional weapons often receive less attention than weapons of mass destruction, yet they are the most common type of armament globally and historically the most commonly used in conflict. Compared to weapons of mass destruction, conventional arms are perhaps less dramatic in nature and more limited in scope. Nevertheless, due to their wide use they inflict death and tremendous damage globally; they also remain widely available and are little regulated.

Conventional Arms Sales

SINCE THE END OF THE COLD WAR, the United States has dominated the conventional arms sales market. A 2007 United States Congressional Research Service study found that over the prior eight years the United States had agreed to \$123.5 billion in global arms sales, more than double the second-highest seller, the Russian Federation, at \$54 billion. According to a 2008 Congressional Research Service report, the United States, the Russian Federation and the United Kingdom collectively agreed to arms transfers (which includes sales and grants of arms) in 2007 valued at over \$45 billion, slightly more than 75 percent of all international arms transfer agreements made by all suppliers.

Arms transfer agreements are on the increase. The total value of international arms transfer agreements for the period 2004 to 2007 was \$208 billion, an increase of more than 29 percent over the previous four-year period. East Asia, Europe and the Middle East were the largest recipient regions for 2004-2008, according to the Stockholm International Peace Research Institute (SIPRI). China has been the single largest importer of conventional arms for the last several years. SIPRI also notes that “India is seen as probably the most important single country market for weapons in the near future” (SIPRI *Yearbook 2009*).

Weapons suppliers continue to focus on developing nations. During the years 2000 to 2007, the value of arms transfer agree-

ments with developing nations comprised more than 66 percent of all such agreements globally. The value of all arms transfer agreements with developing nations in 2007 was more than \$42 billion, up from \$38 billion the previous year. In 2007, the United States ranked first in arms transfer agreements with developing nations with almost 29 percent of these agreements. The United Kingdom was second with slightly more than 23 percent, and the Russian Federation third with 23 percent.

Work toward an Arms Trade Treaty

IT IS WIDELY ACKNOWLEDGED that too many arms end up shipped to countries with dismal human rights records or to conflict zones where the arms exacerbate the violence or facilitate repression and human rights abuses.

Arms may arrive directly (such transfers could be considered “irresponsible”) or be the result of the activities of illicit arms brokers and traders who exploit legal loopholes, evade customs and falsify documents (among other methods) to conclude their deals. United Nations Secretary-General Ban Ki-moon has identified as a “recurring problem” the lack of a framework for States to guide decisions regarding arms transfers.

In recognition of the problem, the United Nations General Assembly, in 2006, adopted a resolution asking the Secretary-General to establish a group of governmental experts to look into the “feasibility, scope and draft parameters for a comprehensive, legally-binding instrument establishing common international standards for the import, export and transfer of conventional arms”. The resolution received overwhelming support – 153 in favour, 24 abstentions and one opposed (the United States). Work toward such an instrument, which has become known as the arms trade treaty, is ongoing.

In 2008, the General Assembly adopted resolution 63/240 which established an open-ended working group (OEWG) to meet for up to six one-week sessions starting in 2009. The open-ended work-

ing group will “further consider those elements in the report of the Group of Governmental Experts where consensus could be developed for their inclusion in an eventual legally binding treaty on the import, export and transfer of conventional arms” and should submit an initial report to the 2009 session of the General Assembly.

Although the scope and nature of an arms trade treaty is yet to be defined, it is hoped that the basic goal of an arms trade treaty would be to prohibit irresponsible arms transfers – those that would provoke or prolong armed conflicts, aid the commission of human rights abuses and violations of international humanitarian law, destabilise countries or regions, undermine development, allow arms to flow from the legitimate to the illicit market, and undermine international peace and security.

As currently envisaged, an arms trade treaty is not intended to end the arms trade, but to end unscrupulous trading, nor is it intended to cover transfers within a State or impose restrictions on how arms may be acquired, held or used within a State.

Such a treaty is greatly needed primarily because individual countries’ laws on international transfers of arms vary greatly. Some countries have highly developed transfer and control systems in place and enforce them stringently, while others have good controls on paper but weak enforcement or no real controls at all. Thus, many believe that the only way to universally and effectively regulate the international arms trade is with a legally-binding international treaty.

TO LEARN MORE about progress toward an arms trade treaty, visit the following websites:

United Nations Office for Disarmament Affairs

www.un.org/disarmament/convarms/ArmsTradeTreaty/html/ATT.shtml

Control Arms Campaign

www.controlarms.org

Government of the United Kingdom

www.fco.gov.uk/att

Current Arms Control Measures

THE CONVENTION ON PROHIBITIONS or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects as amended on 21 December 2001 (more commonly called the **Convention on Certain Conventional Weapons** and also known as the **Inhumane Weapons Convention**) bans or restricts the use of specific types of weapons considered to cause unnecessary or unjustifiable suffering to combatants or to affect civilians indiscriminately. It has 109 States Parties, with five additional States having signed but not yet ratified.

In an unusual arrangement (meant to ensure flexibility), the body of the Convention contains only general provisions. Its prohibitions and restrictions are contained in a series of Protocols annexed to the Convention (five in number as of June 2009).

Protocol I on Non-Detectable Fragments (107 States Parties) prohibits the use of any weapon designed to injure by fragments that are undetectable in the human body by x-ray.

Protocol II on Prohibitions or Restrictions on the Use of Mines, Booby Traps and Other Devices as amended (92 States Parties) prohibits the indiscriminate use of landmines and anti-personnel mines; it does not ban such devices but rather defines how they can and cannot be used.

Protocol III on Prohibitions or Restrictions on the Use of Incendiary Weapons (103 States Parties) bans the use of incendiary weapons against civilians and air delivery of such weapons against military objectives located within civilian concentrations.

Protocol IV on Blinding Laser Weapons (94 States Parties) prohibits the use of laser weapons specifically designed to cause permanent blindness to the naked eye.

Protocol V on Explosive Remnants of War (58 States have notified the Secretary-General of their consent to be bound by this Protocol) is the first multilaterally negotiated instrument to deal with the problem of unexploded and abandoned ordnance.

In 2001, States Parties agreed to amend the Convention so that it applies not only to interstate conflicts (its original scope) but also to non-international armed conflict. Seventy States Parties have notified the Secretary-General of their consent to be bound by this amendment.

Transparency Measures

THE UNITED NATIONS REGISTER OF CONVENTIONAL ARMS, established in 1992, is a transparency and confidence-building measure that includes data provided by States on international arms transfers. Nearly 100 United Nations Member States report each year. The Register covers the export and import of seven categories of major conventional arms, namely, battle tanks, armoured combat vehicles, large-calibre artillery systems, combat aircraft, attack helicopters, warships (including submarines), as well as missiles and missile-launchers. It captures the great bulk of the global arms trade in the categories in which it covers. In 2003, the United Nations General Assembly decided to open the Register to Member States for reporting transfers of small arms and man-portable air defence systems (MAN-PADS), as well.

Through the **United Nations system for the standardised reporting of military expenditures**, which was introduced in 1980, Member States are invited to report aggregate and detailed data on expenditures incurred on military personnel, operations and maintenance, procurement and construction, and research and development. Approximately 80 United Nations Member States report each year.

TO LEARN MORE about these instruments, visit the **website of the United Nations Office for Disarmament Affairs** at www.un.org/disarmament.

CHAPTER 9

Small Arms and Light Weapons

“**FOR COUNTRIES** in the midst of long-term conflict as well as States in crisis or in a post-conflict phase and nations otherwise nominally “at peace”, armed violence can aggravate poverty, inhibit access to social services and divert energy and resources away from efforts to improve human development. . . . **[A]rmed conflict and high levels of armed violence form a serious impediment to economic growth. According to the World Bank, nothing so undermines investment climates as armed insecurity.**”

REPORT of the Secretary-General to the Security Council
on the subject of small arms (2008)

MORE THAN 740,000 PEOPLE DIE each year from armed violence, according to the report *The Global Burden of Armed Violence*. The majority of these deaths – 490,000 – occur outside traditional war zones. Armed violence affects all societies whether they are at war, post conflict, or experience crime or political violence. Such violence impedes human, social and economic development.

It is difficult to know how many small arms (weapons designed for individual use, such as revolvers, self-loading pistols, rifles and machine guns) and light weapons (weapons designed for use by two or three persons serving as a crew) are in circulation globally. Authoritative sources put the number at 875 million or more, but there are great problems in counting such weapons. (For the pur-

poses of this article, the term “small arms” will be used to refer to the whole category of weapons.)

According to the Small Arms Survey, more than 1,200 companies in at least 90 countries are involved in some aspect of small arms production. The bulk of the production occurs in just 30 countries, led by the United States, the Russian Federation and China. The total authorised trade in small arms and light weapons was likely US \$4 billion in 2003. No one knows the value of the illicit trade in such weapons.

Why have small arms become so prevalent? There are a number of reasons: they are cheap, light and easy to handle, transport and conceal. The trade in small arms is not well regulated and is the least transparent of all weapons systems. Indeed, the Small Arms Survey noted in 2001, that “more is known about the number of nuclear warheads, stocks of chemical weapons and transfers of major conventional weapons than about small arms”. Because of the lack of regulation, it is fairly easy for small arms to slip from the legal market to the illicit market. In fact, every arms embargo ever imposed by the United Nations Security Council has been violated by illicit arms traffic.

Ammunition

AMMUNITION IS A KEY COMPONENT of the small arms issue, yet very little is known about global ammunition flows. In fact the Secretary-General’s 2008 report to the Security Council on small arms acknowledges that more than 80 percent of the ammunition trade seems to remain outside of reliable export data. The Secretary-General’s report points out that ammunition stockpiles are quickly depleted in situations of sustained use, such as violent conflict, and preventing their resupply in situations conflicting with the rule of law should be a matter of prime concern.

The *Small Arms Survey 2007* notes that much of the ammunition circulating among non-State actors has been illicitly diverted from State security forces, demonstrating the urgent need to bet-

ter secure ammunition stockpiles. Stockpiles also present a secondary danger to civilian populations when they are placed in densely populated areas. Warehouses holding ammunition have exploded recently in a number of countries causing thousands of casualties.

The Use of Small Arms in Conflicts

MOST CONFLICTS TODAY are fought primarily with small arms. The presence of such arms alone does not create conflict, but their accumulation and wide availability are catalysts, aggravating conflicts, and making them more lethal and longer lasting. The presence of small arms creates a downward spiral by increasing people's sense of insecurity, thus leading to a greater demand for weapons.

According to the Small Arms Survey, the vast majority of direct conflict deaths (60 to 90 percent) are attributable to the use of small arms. Increasingly these deaths are not only soldiers, but a large number of civilians – mostly women, children and the infirm – caught in harm's way or deliberately targeted as a tactic of war.

More human rights abuses are committed with small arms than any other weapon. The ripple effects of the prevalence of small arms are hard to overestimate. Armed conflict fueled by small arms is the main cause of people fleeing their homes and the most common cause of food insecurity. The International Monetary Fund has found that armed conflict and high levels of armed violence are serious impediments to economic growth.

Women and girls are often gravely affected by small arms violence, but perhaps no one group is more directly affected than young males, who are overwhelmingly the most common users of small arms and also their most common victims.

The Use of Small Arms in Violent Crimes

THE MAJORITY OF DEATHS from armed violence each year occur outside war zones, a result of violent crimes. There were

490,000 homicides recorded in 2004, twice the number of people who died directly or indirectly in conflict. Sub-Saharan Africa and Latin America are most severely affected by non-conflict armed violence. Homicide rates in these regions are nearly three times as high as the global average (20 homicides per 100,000 people per year compared to a global average rate of 7.6 homicides per 100,000 people per year).*

Regulating Small Arms

INTERNATIONAL MEASURES to regulate the illicit trade in small arms and light weapons include the following:

The United Nations Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects was adopted in 2001. It is politically- but not legally-binding and encourages all United Nations Member States to adopt a number of measures at the national, regional and global levels, in the areas of legislation, destruction of weapons that have been confiscated, seized or collected, as well as international cooperation and assistance to strengthen the ability of States in identifying and tracing illicit arms and light weapons.

The International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons was developed within the framework of the Programme of Action, and like the Programme, is politically- rather than legally-binding. It applies to all United Nations Member States. The Instrument commits States to undertake a number of measures to ensure the adequate marking of and record-keeping for small arms and light weapons and to strengthen cooperation in tracing illicit small arms and light weapons. States are also to ensure that they are capable of undertaking traces and responding to tracing requests in accordance with the requirements of the Instrument.

The Protocol against the Illicit Manufacturing of and Trafficking in Firearms, Their Parts and Components and Ammunition (also known as the Firearms Protocol) entered into force in 2005. It is a legally-binding addition to the United Nations Convention against Transnational Organized Crime and applies to those States that have ratified it. The objective of the Firearms Protocol, which is the first legally-binding instrument on small arms adopted at the global level, is to promote, facilitate and strengthen cooperation among States in preventing, combating and eradicating the illicit manufacturing of and trafficking in firearms, their parts and components, and ammunition. By ratifying the Firearms Protocol, States make a commitment to adopt a series of crime control provisions establishing criminal offences related to illegal manufacturing of or trafficking in firearms; the second set of provisions setting up a system of government authorisations or licensing, to ensure legitimate manufacturing of and trafficking in firearms; and the third set relating to the marking and tracing of firearms.

*These figures come from the report *The Global Burden of Armed Violence*, published by the Secretariat of the Geneva Declaration. Their numbers are based on data from and the publications of the United Nations Office on Drugs and Crime, as well as other publicly available sources. To read the entire report, go to www.genevadeclaration.org.

FOR FURTHER INFORMATION about all of these instruments, visit the website of the **United Nations Office for Disarmament Affairs** at www.un.org/disarmament.

For More Information

Control Arms Campaign

www.controlarms.org

Arms Control Association

www.armscontrol.org

Federation of American Scientists/Arms Transfer Working Group
www.fas.org/asmp/atwg

Institute for Security Studies/ArmsNetAfrica
www.armsnetafrica.org

British American Security Information Council (BASIC)
www.basicint.org

Campaign against Arms Trade (CAAT)
www.caat.org.uk

International Action Network on Small Arms (IANSA)
www.iansa.org

Norwegian Initiative on Small Arms (NISAT)
www.nisat.org

Stockholm International Peace Research Institute (SIPRI)
www.sipri.org

United Nations Cyberschoolbus
<http://cyberschoolbus.un.org/dnp/sub2.asp?ipage=smallarms>

CHAPTER 10

Landmines

“**THE REAL CAUSE OF DEATH** and impairment of innocent civilians is the very existence of anti-personnel mines, sophisticated but awfully cheap, which look like candy boxes, are almost undetectable and last a long period. Their production and sale must be stopped. Like other such weapons, they must be prohibited. For my part, I see little difference between those who use them and those who produce them.”

SADAKO OGATA, United Nations High Commissioner for Refugees
Statement at the International Meeting on Mine Clearance, Geneva,
Switzerland, July 1995

ANTIPERSONNEL MINES (or landmines) were first widely used in World War II. Since then, according to the International Campaign to Ban Landmines (ICBL), they have been used in many conflicts, including the Vietnam War, Korean War and the 1991 Gulf War.

The original purpose of landmines was to protect antitank mines (to stop them from being removed by enemy soldiers). They were also used defensively to protect borders, camps and other strategic locations and to restrict the movement of enemy troops. Landmines were designed to maim rather than kill, often diverting valuable battlefield resources to care for injured victims.

Over time, however, much of this changed. Landmines are now mainly deployed as offensive weapons, often in internal con-

flicts (which are much more common today than interstate wars) and against civilians. They are used to terrorise, to deny access to farmland and to restrict the movement of entire populations of people.

Landmine fields, once marked and mapped, are now most often left unrecorded. As systems were developed to deliver mines from the air and mines were used in greater numbers, marking and mapping became nearly impossible. The result has been hundreds of thousands of mine-related deaths and injuries. By the end of the 1990s, there were an estimated 15 to 20 thousand casualties caused by landmines and unexploded ordnance each year.

Thanks in large part to the Landmine Convention and the awareness that has been raised by civil society groups that were integral to the Convention's development and entry into force, there is some good news concerning landmines. The numbers of those maimed and killed by landmines has been decreasing, as has the production of landmines. In 2007, the International Campaign to Ban Landmines identified 5,751 casualties from mines and related explosives. (The actual number, however, is likely much higher.) The global trade in antipersonnel landmines has nearly halted.

BUT THERE IS STILL much work to be done.

More than 75 countries in every region of the world are still affected to some degree by landmines or unexploded ordnance. Some of the most contaminated places include: Afghanistan, Angola, Burundi, Bosnia and Herzegovina, Cambodia, Chechnya, Colombia, Iraq, Nepal and Sri Lanka. Myanmar, India and Pakistan are also thought to be affected, but little public information is available. And landmines are still being used in a handful of conflicts.

As long as there are landmines on the ground, they will continue to pose a dire threat, primarily to civilians, and primarily in countries now at peace. They are indiscriminate weapons more likely to kill or maim civilians – including children – or peacekeepers, than combatants. They often lie dormant for months or even

years after conflicts have ended. They can burn, blind, destroy limbs and kill.

Landmines disproportionately affect the world's poorest countries. They litter fields, preventing farmers from working their land. They contaminate towns, preventing refugees from returning to their homes. Clearing mines is dangerous and expensive work. The cost to clear a mine can be 1,000 times higher than the cost to produce it.

Convention on Certain Conventional Weapons

THE AMENDED PROTOCOL II of the Convention on Certain Conventional Weapons, which entered into force in 1998, puts restrictions on the use of anti-personnel landmines but does not ban them.

Landmine Convention

THE CONVENTION on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (known as the Landmine Convention) bans the use, production, stockpiling and transfer of antipersonnel landmines. States Parties to the Convention are required to destroy existing stockpiles of antipersonnel landmines within four years of the Convention becoming binding. States Parties also agree to work to solve existing landmine problems through mine clearance, education and survivor assistance.

The Landmine Convention was developed through what has become known as the *Ottawa Process*, a partnership between civil society, governments and the United Nations (but which took place largely outside "official" United Nations fora). In December 1997, 122 governments signed the Convention in Ottawa, Canada, and the following September, Burkina Faso became the 40th country to ratify the Convention, triggering its entry into force six months later, in March 1999. The Landmine Convention entered into force more quickly than any other treaty of its kind and as of

2009 has 156 Member States; 39 States remain outside the Convention, including China, Egypt, India, Israel, Pakistan, the Russian Federation and the United States.

The Convention has been instrumental in virtually halting the global trade in antipersonnel landmines and has broad influence, even among States that have not yet ratified it.

For More Information

International Campaign to Ban Landmines

www.icbl.org

Adopt-A-Minefield Campaign of the UNA-USA

www.landmines.org

Electronic Mine Information Network (E-Mine)

UN Mine Action Service

www.mineaction.org

Federation of American Scientists

www.fas.org

Handicap International

www.handicap-international.org

US Campaign to Ban Landmines

www.banmineusa.org

United Nations Cyberschoolbus

<http://www.un.org/cyberschoolbus/banmines/units/unit2a.asp>

CHAPTER 11

Cluster Munitions

“FOR 40 YEARS — from Laos to Lebanon — cluster munitions have caused unnecessary suffering both at the time of attack and for years afterward.”

THOMAS NASH, *Forseeable Harm*, Landmine Action, 2006

IN SIMPLE, FUNCTIONAL TERMS, a cluster munition (or cluster bomb) is a container that holds a number of submunitions, ranging from a few to several hundred. They can be air- or ground-launched, releasing “bomblets” or “grenades” respectively.

Since their design and first use more than a half century ago, cluster munitions have been used in combat in at least 23 countries, perhaps most notably by the United States between 1964 and 1973 in Vietnam, Cambodia and Lao People’s Democratic Republic, which have the tragic distinction of being the world’s most heavily bombed region. Other areas affected by cluster munitions include Chad, Eritrea, Sierra Leone and Sudan in Africa, the former Yugoslav Republics, as well as Albania, Chechnya and Afghanistan. More recently, according to the Cluster Munition Coalition, the United States and its allies used cluster bombs in Iraq, first in 1991 (some 61,000 cluster bombs containing 20 million submunitions) and again in 2003 (13,000 cluster bombs containing nearly two million submunitions). Israeli forces used surface-launched and air-dropped cluster munitions in Lebanon in 2006. Human Rights Watch has also documented cluster bomb use by Georgia and the Russian Federation in fighting over the separatist region of South Ossetia in August 2008, resulting in dozens of civilian deaths and

injuries.

It is impossible to know how many people have been killed by cluster munitions globally. Handicap International has recorded and confirmed more than 11,000 cluster munitions casualties worldwide, but the number may be much higher. Nearly all recorded casualties, 98 percent, are civilian. Young males carrying out work are the most frequent victims.

Thirty-four countries are known to produce cluster submunitions and at least 73 countries are known to stockpile them. The world's total stockpile runs in the billions.

Cluster munitions are particularly dangerous to civilians for a number of reasons. They are often inaccurate and miss their intended target (largely because they are vulnerable to weather and other conditions). They are indiscriminate; a single strike can spread across a wide area. They are unreliable; large numbers of unexploded submunitions often remain on the ground, liable to explode even years after active hostilities have ended. They can be deadly; cluster submunitions are designed to penetrate material (like tank armour) and thus contain even more explosive power and metal fragmentation than landmines.

The Convention on Cluster Munitions

THE CONVENTION on Cluster Munitions, which outlaws the use, stockpiling, production and transfer of nearly all cluster bombs, is the result of what has become known as the *Oslo Process*, a collaboration among governments, the United Nations and civil society groups to address the problem of cluster munitions. The Convention opened for signature in December 2008 and will enter into force six months after 30 States have ratified it. (As of April 2009, five States had ratified the Convention and 96 had signed it, signaling their intent to ratify. To check the status of ratifications, go to www.disarmament.un.org/TreatyStatus.nsf.) Those countries that ratify the Convention are required to destroy all existing cluster munitions stockpiles within eight years and also commit

themselves to aid countries affected by cluster bombs through explosives clearance and support for blast victims.

While the Oslo Process has by and large been successful in quickly bringing to fruition a far-reaching ban on cluster munitions, there are still great challenges, perhaps the most serious being the fact that the United States, the Russian Federation and China, which stockpile the overwhelming majority of cluster munitions worldwide, did not participate in the development of the Convention and had not signed it as of July 2009.

Negotiations on cluster munitions have also been under way in the context of the Convention on Certain Conventional Weapons (CCW), with discussions in Geneva in 2009 focusing on whether a new protocol could be added to that Convention.

For More Information

Cluster Munition Coalition

www.stopclustermunitions.org

Electronic Mine Information Network (E-Mine)

UN Mine Action Service

www.mineaction.org

Handicap International

www.handicap-international.org

Human Rights Watch

www.hrw.org

International Campaign to Ban Landmines

www.icbl.org

NGO Committee on Disarmament Peace and Security

<http://disarmtimes.org>

More than **two million**
children have been **killed**
in armed conflict and another
six million have been
permanently **disabled** in the
past 20 years.

CHAPTER 12

Children and Armed Conflict

“**I WOULD LIKE YOU to give a message. Please do your best to tell the world what is happening to us, the children. So that other children don't have to pass through this violence.**”

15-YEAR-OLD GIRL forcibly abducted by the Lord's Resistance Army (Uganda) and forced to fight (Interview by Amnesty International)

OVER THE LAST SEVERAL DECADES, the face of war has changed dramatically. Increasingly women and children are casualties of war, as civilian populations are targeted. More than two million children have been killed in armed conflict and another six million have been permanently disabled in the past 20 years. More than 250,000 children have been exploited as child soldiers around the globe. Thousands of them have been subjected to rape and other forms of sexual violence. Boys and girls have been abducted from their homes and communities in unprecedented numbers.

In April 2009, Radhika Coomaraswamy, Special Representative of the Secretary-General for Children and Armed Conflict, reported that while some progress has been made in addressing the recruitment and use of child soldiers, there remain 20 situations of concern where children are vulnerable to abuse. The eighth report of the Secretary-General on children and armed conflict (2009) chronicled 56 parties that continue to recruit and use children as soldiers.

Children caught in armed conflict are often brutalised and isolated. Ms. Coomaraswamy noted that the mental and physical

trauma suffered by the thousands of children who are victims and perpetrators of violence in conflict situations “represents a grave threat to durable peace and sustainable development, as cultures and cycles of violence are perpetuated”.

Some groups of children — girls, refugees, internally displaced and those in child-headed households — are particularly vulnerable. Increasingly girls are being recruited into fighting forces, where, as the boys, they often serve multiple roles as cooks, porters, fighters, mine sweepers, spies or suicide bombers. They are also used as “wives”. When fighting is over, girls are often stigmatized and overlooked in programmes designed to reintegrate children back into their communities.

Child Soldiers

THE USE OF CHILD SOLDIERS has been universally condemned; yet over the last decade, hundreds of thousands of children have fought and died in conflicts around the world. It happens mainly in Africa, where children as young as seven have been involved in armed conflicts. But the use of child soldiers is by no means isolated to that continent. Children have been used as soldiers in parts of Asia, Latin America, Europe and the Middle East. According to the Coalition to Stop the Use of Child Soldiers, children were deployed to areas of conflict in 21 countries between April 2004 and October 2007, including the Central African Republic, Chad, Iraq, Somalia and Sudan (Darfur).

Children involved in armed conflict are frequently killed or injured during combat. They are forced to carry out hazardous duties such as laying mines or explosives, as well as using weapons. They frequently live in harsh conditions with insufficient food and little or no access to healthcare. They are often beaten and humiliated, and girl soldiers particularly are vulnerable to rape and sexual abuse. Few post-conflict services exist to help girls — who are often shunned by their communities — deal with the consequences of such violence.

The majority of the world's child soldiers are involved in armed groups, including paramilitaries, militias and self-defence units operating in conflict zones. But children were used in armed conflict by government forces notably in Myanmar, Uganda, the Democratic Republic of the Congo and Sudan. While some of these report enlisting "voluntarily", it is important to note that they often do so when they feel they have no other alternatives. Some enlist as a means to survive or after seeing family members killed. Others join because of poverty or lack of other opportunities. Forcible abductions also continue to occur in some countries.

Protecting Children in War

WHILE MUCH WORK REMAINS TO BE DONE, there have been significant developments in efforts to protect children caught in conflict situations. More than 120 countries have ratified the **Optional Protocol to the Convention on the Rights of the Child** on the involvement of children in armed conflict. The Optional Protocol urges countries to "take all feasible measures" to ensure that members of their armed forces under the age of 18 do not take a direct part in hostilities. States must also raise the minimum age for voluntary recruitment into the armed forces above the age of 15 (but are not required to set a minimum age of 18).

The Security Council is deeply engaged on the issue of children and armed conflict, considered as an international peace and security issue. In 2005, it adopted a groundbreaking **resolution 1612**, creating the **Working Group on Children and Armed Conflict** and establishing a monitoring and reporting mechanism on the situation of children in armed conflict. Resolution 1612 allows the Security Council to impose targeted measures, such as sanctions, against those who recruit child soldiers.

Increasingly special regional courts and truth commissions are addressing the issue of child soldiers. The **International Criminal Court** has charged members of armed groups in the Democratic Republic of the Congo with war crimes for the recruitment and use of children under the age of 15 in hostilities.

For More Information

Amnesty International

www.amnesty.org/Children

Coalition to Stop the Use of Child Soldiers

www.child-soldiers.org

Human Rights Watch

www.hrw.org

Office of the Special Representative of the Secretary-General for Children and Armed Conflict

www.un.org/children/conflict

UNICEF

www.unicef.org

United Nations Cyberschoolbus

<http://cyberschoolbus.un.org/childsoldiers/webquest/>

CHAPTER 13

Women, Peace and Security

“**RESOLUTION 1325** is primarily about how to make this world safe for women’s and girls’ equal participation in matters of peace and security. Determined action to eradicate gender-based violence will be required to enable achievement of these goals Sexual violence in conflict, particularly rape, should be named for what it is: not a private act or the unfortunate misbehaviour of a renegade soldier, but aggression, torture, war crime and genocide.”

RACHEL MAYANJA, United Nations Special Adviser on Gender Issues and Advancement of Women, 23 October 2007

WOMEN PLAY MANY ROLES in times of conflict. As civilians, their lives are often dramatically altered, their livelihoods and their rights imperiled by conflict. As mothers and caregivers, they are often left to head households under harsh, sometimes unlivable conditions. As soldiers, they serve many functions, from combatants to cooks.

Based on their diverse experiences, women can offer valuable insights and make important contributions in decision-making processes about peace and security. Yet all too often they are bystanders to those decision-making processes — to questions about their own security, peace negotiations, peacekeeping operations, and post-conflict rebuilding efforts. When this happens, women’s experiences are more likely to be discounted and their needs more likely to go unaddressed. But when women *are* included as active

participants in decision-making processes, their needs and those of the whole community are more likely to be addressed, security efforts are more likely to be inclusive, and peace negotiations and peace-building efforts are more likely to be successful and long-lasting.

Actions by the United Nations Security Council

SECURITY COUNCIL RESOLUTION 1325, which passed unanimously on 31 October 2000, marks the first time the United Nations Security Council specifically addressed the unique impact of war on women and the importance of women's contributions to conflict resolution and peace processes.

The passage of the resolution signaled a new level of awareness in the Security Council concerning gender issues and promised more focused attention throughout the United Nations system on not only the needs of women in times of war, but also the potential of women to be active partners in peace.

Resolution 1325, broadly speaking, is about three issues: **prevention** of violence and abuse of rights, **protection** in conflict, and **participation** in peace and security decisions. Of these three, participation is perhaps the most important — recognising women's right to play an active role in decision-making. To this end, the resolution calls on Member States to ensure increased representation of women in decision-making positions. It encourages the United Nations Secretary-General to appoint more women as special representatives and envoys to conflict situations, and urges the Secretary-General to expand the role of women in United Nations peacekeeping operations.

The resolution calls on those involved in armed conflicts to respect the rights of women and girls and emphasises the responsibility of States to prosecute those responsible for war crimes, including those relating to sexual and other violence against women and girls. Finally, it calls on all parties to consider the needs and rights of women when negotiating and implementing peace

agreements and when planning for disarmament, demobilisation and the reintegration of ex-combatants into society.

The passage of resolution 1325 is an important step forward but it is merely a beginning, not an end. Thus far, its words have done little to protect women living in conflict zones and the number of women involved in crafting and implementing peace agreements, while increasing, remains small.

Even the United Nations itself has had difficulty implementing the mandates of resolution 1325 within its peacekeeping operations. As of 2009, only one recent peacekeeping mission, Liberia, has been headed by a woman. Women comprise only approximately 10 percent of senior positions and 28 percent of all personnel in peacekeeping operations. In police missions, seven percent of all personnel are women, and in military missions, women make up approximately three percent of peacekeepers.

EIGHT YEARS AFTER THE PASSAGE of resolution 1325, the Security Council once again acted to protect women in conflict situations, this time specifically addressing sexual violence against women in times of conflict.

While violence against women has always been present in conflict situations, in the past 20 years, such violence has reached epidemic proportions as armed groups have used rape as a weapon of war. The numbers are staggering. In the 1990s, between 20,000 and 50,000 women were raped in Bosnia-Herzegovina. An estimated 500,000 women were raped during the 1994 genocide in Rwanda. Fifty percent of all women in Sierra Leone and 40 percent of women and girls in Liberia were subjected to rape, torture or sexual slavery during armed conflicts in those countries. In the Democratic Republic of the Congo, there are an estimated 25,000 cases of sexual violence against women and girls each year. International outcry has led to recognition of the fact that rape is a war crime and should be prosecuted as such, yet the brutality continues.

In its **resolution 1820**, which passed unanimously on 19 June 2008, the Security Council recognises for the first time that sexual violence used systematically against civilian populations is a threat to international peace and security. The Council also notes (as has been done previously and elsewhere) that rape and other sexual violence can constitute a war crime, and, for the first time, stresses the need for sex crimes to be excluded from amnesty agreements.

The Council also affirms its intention to consider measures against parties to armed conflicts who commit rape and other sexual violence and requests the Secretary-General to develop strategies for United Nations peacekeepers to better protect civilians from sexual violence.

Resolutions 1325 and 1820 mark important steps forward and place issues related to women and armed conflict squarely on the Security Council's agenda. What is needed now is concrete action to back up those words.

TO READ the Security Council resolutions, go to www.un.org/sc/.

For More Information

**Women's International League for Peace and Freedom
PeaceWomen Project**
www.peacewomen.org

Security Council Report
www.securitycouncilreport.org

United Nations Development Fund for Women (UNIFEM)
www.unifem.org

United Nations Office of the Special Adviser on Gender Issues
www.un.org/osagi

UN Portal on Women, War and Peace
www.womenwarpeace.org

CHAPTER 14

The United Nations and the Work of Disarmament

THE UNITED NATIONS HAS BEEN a key proponent of disarmament. Both its founding document, the United Nations Charter, and the very first resolution of the United Nations General Assembly deal with disarmament.

Here is a brief look at the early history:

24 October 1945

United Nations Charter enters into force; the Charter contains two references to disarmament (Articles 11 and 47) and urges the “least diversion for armaments” of the world’s human and economic resources (Article 26). *(Read the United Nations Charter at www.un.org/aboutun/charter.)*

24 January 1946

First resolution adopted by the United Nations General Assembly creates a United Nations Atomic Energy Commission and sets forth the goal of eliminating all weapons “adaptable to mass destruction”.

14 December 1946

General Assembly adopts resolution urging the Security Council to formulate practical measures “for the general regulation and reduction of armaments and armed forces”.

11 January 1952

General Assembly establishes the Disarmament Commission to

draft treaties for (a) the “regulation, limitation, and balanced reduction of all armed forces and all armaments”, (b) the elimination of all weapons adaptable to mass destruction, and (c) the peaceful uses of nuclear energy.

20 November 1959

General Assembly first identifies the goal of “general and complete disarmament under effective international control”.

WITHIN THE UNITED NATIONS AND ITS RELATED BODIES, a number of important disarmament treaties have been promulgated, including the Chemical Weapons Convention, Biological Weapons Convention, Nuclear Non-Proliferation Treaty, Comprehensive Nuclear-Test-Ban Treaty and more.

The United Nations, since its creation, has sought two parallel and mutually reinforcing goals: the elimination of weapons of mass destruction (biological, chemical and nuclear) and the regulation of conventional arms (in particular, the illicit trade in small arms). It deals with these issues through its most important organs and their subsidiaries.

United Nations General Assembly

THE GENERAL ASSEMBLY is the chief deliberative, policymaking and representative organ of the United Nations. Its members include all United Nations Member States (as of 2009, 192 members). The General Assembly meets in regular session principally from September to December each year. It can make only non-binding recommendations to states and works on the basis of one member, one vote. Votes on designated important issues (for example, peace and security) require a two-thirds majority of Member States. All other questions are decided by simple majority. The General Assembly has six main committees: First Committee (Disarmament and International Security), Second Committee (Economic and Financial), Third Committee (Social, Humanitarian

and Cultural), Fourth Committee (Special Political and Decolonisation), Fifth Committee (Administrative and Budgetary), and Sixth (Legal).

TO LEARN MORE, go to the **General Assembly's website** (www.un.org/ga) or visit the following: **Arms Control Association** (www.controlarms.org), **Reaching Critical Will** (www.reachingcriticalwill.org), **The Acronym Institute** (www.acronym.org.uk) and the **PeaceWomen Project** (www.peacewomen.org).

TO VIEW the most recent year's voting on issues related to disarmament and international security, go to the website of the **United Nations Office for Disarmament Affairs** (<http://disarmament.un.org/vote.nsf>) and the **NGO Committee on Disarmament, Peace and Security** (<http://disarmtimes.org>). Find the voting chart in annual winter issues of *Disarmament Times*.

United Nations General Assembly / First Committee *Disarmament and International Security*

THE FIRST COMMITTEE of the General Assembly deals with issues of disarmament and international security. (See General Assembly, previous page.)

TO LEARN MORE, go to the **First Committee's website** (www.un.org/ga/first/index.shtml).

United Nations Security Council

THE SECURITY COUNCIL has primary responsibility, under the **United Nations Charter, for the maintenance of international peace and security**. It is made up of five permanent members (China, France, the Russian Federation, the United Kingdom and the United States) and 10 non-permanent members, the latter of which are elected by the General Assembly for two-year terms. The Presidency of the Security Council is held in turn by its members

in English alphabetical order of the country names. Each president serves for one calendar month. The Security Council operates on the principle of one member, one vote. Decisions on procedural matters require nine of 15 affirmative votes. Decisions on substantive matters require nine of 15 affirmative votes, including all five permanent members. Under the United Nations Charter, all Member States agree to accept and carry out the decisions of the Security Council. It is the only organ within the United Nations system that can make such binding decisions.

TO LEARN MORE, go to the **Security Council's website** (www.un.org/docs/sc) or visit the following: **Security Council Report** (www.securitycouncilreport.org), **Reaching Critical Will** (www.reachingcriticalwill.org), **Global Policy Forum** (www.globalpolicy.org) and the **PeaceWomen Project** (www.peacewomen.org).

TO VIEW an annual summary of Security Council actions (beginning in 2008), go to the website of the **NGO Committee on Disarmament, Peace and Security** (<http://disarmtimes.org>.) Check out annual winter issues of *Disarmament Times*.

United Nations Disarmament Commission

THE DISARMAMENT COMMISSION, a deliberative body (it can make only recommendations, not binding decisions), is a subsidiary organ of the United Nations General Assembly, mandated to consider and make recommendations on disarmament issues. It was established in 1978 at the first Special Session of the General Assembly devoted to disarmament (succeeding an earlier Disarmament Commission established in 1952 and which ceased to convene in 1965). The Disarmament Commission consists of all Member States of the United Nations and holds annual sessions in New York for three weeks (usually in the late spring). It considers a few chosen topics in three-year cycles and reports annually to the General Assembly.

TO LEARN MORE, go to the **Disarmament Commission’s website** (www.un.org/depts/ddar/discomm/undc.html) or visit the following: **United Nations Office for Disarmament Affairs** (www.un.org/disarmament/HomePage/DisarmamentCommission/UNDiscom.shtml) and **Reaching Critical Will**, a project of WILPF (www.reachingcriticalwill.org).

Conference on Disarmament

THE CONFERENCE ON DISARMAMENT (CD) is the sole multilateral body for negotiating disarmament treaties. It has 65 permanent members (2009) which meet in Geneva in three sessions each year (generally, January to March, May to June and August to September). It operates on the basis of consensus to ensure full support for agreements that are concluded. Its past accomplishments include the Biological and Chemical Weapons Conventions and the Comprehensive Nuclear-Test-Ban Treaty (which has not yet entered into force). It may soon begin negotiations on a ban on fissile materials.

TO LEARN MORE, go to the website of the **United Nations Office at Geneva** (www.unog.ch, click on “Disarmament”) or check out the following websites: **The Arms Control Association** (www.controlarms.org), **Reaching Critical Will** (www.reachingcriticalwill.org), **The Acronym Institute** (www.acronym.org.uk), the **United Nations Office for Disarmament Affairs** (www.un.org/disarmament), the **NGO Committee on Disarmament, Peace and Security** (<http://disarmtimes.org>.)

United Nations Office for Disarmament Affairs (UNODA)

ORIGINALLY ESTABLISHED in 1982 (although variously named as a “department”, “office”, and “center”), **UNODA** promotes the goal of disarmament and non-proliferation and the strengthening of disarmament regimes. It promotes disarmament in the areas of nuclear weapons, as well as conventional weapons, especially

landmines and small arms. UNODA provides organisational support for the General Assembly, the Disarmament Commission, the Conference on Disarmament and other bodies; it encourages regional disarmament efforts; and it provides information, outreach and education on United Nations disarmament efforts.

TO LEARN MORE, go to **UNODA's website** (www.un.org/disarmament) or visit the following: the **NGO Committee on Disarmament, Peace and Security** (<http://disarmtimes.org>).

International Atomic Energy Agency (IAEA)

HEADQUARTERED IN VIENNA, the IAEA was set up in 1957 to promote global cooperation in the field of peaceful nuclear technology. Its programmes and budgets are set by the 35-member Board of Governors and the General Conference of All Member States. Its work falls broadly into three categories: safety and security, science and technology, and safeguards and verification. It is sometimes referred to as the world's "nuclear watchdog". The IAEA is an independent, international organisation related to the United Nations.

TO LEARN MORE, go to the **IAEA's website** (www.iaea.org).

Organisation for the Prohibition of Chemical Weapons (OPCW)

THE OPCW, which was established in 1997, is the implementing body of the Chemical Weapons Convention. The OPCW is given the mandate to achieve the object and purpose of the Convention, to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and cooperation among States Parties. It is headquartered in the Hague, Netherlands, and has 188 members.

TO LEARN MORE, go to the **OPCW's website** (www.opcw.org).

Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organisation

THE PREPARATORY COMMISSION FOR THE CTBTO, established in 1996, is an interim organisation laying the groundwork and building the global verification regime in preparation for the entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

The Preparatory Commission focuses on promoting the signing and ratification of the Treaty and establishing a global verification regime to monitor compliance with the comprehensive test ban on nuclear testing (which includes building 321 monitoring stations and 16 radionuclide laboratories throughout the world). The Preparatory Commission is an independent international organisation related to the United Nations. It is financed by CTBT States Signatories.

TO LEARN MORE, go to the **CTBTO's website** (www.ctbto.org)

CHAPTER 15

Stay Informed and Get Involved

“*THE EFFECT of one upright individual is incalculable.*”

OSCAR ARIAS, President of Costa Rica, 1987 Nobel Peace Prize winner

THERE ARE MANY HUNDREDS of civil society organisations globally advocating for arms control and disarmament. Without their decades of work, and the support and involvement of individuals worldwide, the disarmament agenda would not be as prominent as it is today, nor would it have advanced as far as it has. Without public engagement, the world’s leaders would not be seriously discussing issues of importance today, such as nuclear disarmament, regulation of the global arms trade and banning fissile materials.

Think you can’t make a difference? Think again. You don’t have to be an expert or a world leader to make a difference. All you have to be is committed, and you have every reason to be committed to a cause that affects your security and the future of the whole planet.

Ordinary, dedicated people make a difference every day. In fact, the treaties banning landmines and cluster munitions are the direct result of civil society campaigns run by just those sorts of people. Committed organisations and individuals can and do make a difference when it comes to disarmament.

The first step in getting involved is to stay informed. With that in mind, the following is a very brief list of websites where you can get the most recent news and learn about and join organisations and campaigns that make a difference. It’s more important now than ever, so join the cause.

The Acronym Institute

www.acronym.org.uk

The website offers information on international security, disarmament, the United Nations, space, biological, chemical and nuclear weapons.

Adopt-a-Minefield Campaign

www.landmines.org

Campaign of the United Nations Association - USA. Learn how to start a campaign at your school or in your community.

Arms Control Association

www.armscontrol.org

A very comprehensive website with information on conventional and unconventional weapons, arms control treaties and country profiles. Read and subscribe to *Arms Control Today*.

British - American Security Information Council

www.basicint.org

Information on terrorism, peacekeeping, arms control, arms transfers, the weapons trade and more. Subscribe to email updates one to two times per month on missile defence, biological weapons, and more at www.basicint.org/nuclear/NMD/email.htm.

Bulletin of the Atomic Scientists

www.thebulletin.org

View selected current articles and past issues of *The Bulletin Online* (free), including global security news and analysis and more.

The Center for Arms Control and Non-proliferation

www.armscontrolcenter.org

The website offers information on biological, chemical and nuclear weapons, missile defence and the Islamic Republic of Iran, Iraq and the Democratic People's Republic of Korea.

Center for Defense Information

www.cdi.org

Research and policy information on the arms trade, children and armed conflict, missile defence, nuclear proliferation, small arms, space security and terrorism.

Cluster Munition Coalition

www.stopclustermunitions.org

International campaign to ban cluster munitions, working in support of the Cluster Munitions Convention. Join the campaign, sign the People's Treaty, join the Global Week of Action and more.

Coalition to Stop the Use of Child Soldiers

www.child-soldiers.org

Working to end the use of child soldiers globally. Receive updates, read the latest reports, join the Red Hand campaign and much more.

Control Arms Campaign

www.controlarms.org

Working to achieve a global, legally-binding arms trade treaty. Join the campaign or the Week of Action, sign the Million Faces Petition and more.

Federation of American Scientists

www.fas.org

In-depth information on biological, chemical and nuclear weapons, the arms trade, energy, the environment and emerging technology.

Gunpolicy.org

www.gunpolicy.org

Comprehensive information about global gun policy. Subscribe to Daily Gun Policy News Updates at www.gunpolicy.org/subscribe_gpn.php.

Henry L. Stimson Center

www.stimson.org

Website offers information on nuclear, chemical and biological weapons, weapons in space and regional security.

International Action Network on Small Arms

www.iansa.org

Global campaign working to end the illicit trade in small arms and supporting the development of an arms trade treaty.

International Campaign to Ban Landmines

www.icbl.org

Global campaign instrumental in the development and passage of the Landmine Convention. Join a national group or become a volunteer. See eight things you can do for a mine-free world.

International Panel on Fissile Materials

www.fissilematerials.org

In-depth information on fissile materials and nuclear weapons. Working for the passage of a fissile materials cut-off treaty (FMCT). Read the proposed text of an FMCT and the annual *Global Fissile Material Report*.

James Martin Center for Nonproliferation Studies

Monterey Institute of International Studies (Middlebury College)

<http://cns.miiis.edu>

A comprehensive website with information on weapons of mass destruction and nonproliferation.

NGO Committee on Disarmament, Peace and Security

<http://disarmtimes.org>

Comprehensive research pages with background information and website links to a variety of disarmament related issues and treaties. Subscribe to *Disarmament Times*, quarterly publication covering disarmament issues. Read current and back issues.

Nuclear Threat Initiative

www.nti.org

Information about biological, chemical and nuclear weapons, as well as in-depth country profiles. Subscribe to the Global Security Newswire, a daily collection of disarmament- and arms control-related news.

Reaching Critical Will

Project of Women's International League for Peace and Freedom
www.reachingcriticalwill.org

A very comprehensive site with background information on many disarmament-related issues. Sign up for email resources, including *News in Review* (daily newsletter from the NPT preparatory committees and review conferences), *First Committee Monitor* (weekly newsletter reporting on the First Committee of the United Nations General Assembly), *CD Report* (news from the Conference on Disarmament), and E-News Advisories. Use the address above or email info @reachingcriticalwill.org to subscribe.

Small Arms Survey

www.smallarmssurvey.org

Read the comprehensive *Small Arms Survey* on small arms, ammunition, producers, MANPADS, country surveys and more.

Stockholm International Peace Research Institute

www.sipri.org

In-depth research on international security, arms control and disarmament. Read the *SIPRI Yearbook* for information on arms expenditures, global weapons stockpiles and more.

United Nations Cyberschoolbus

<http://cyberschoolbus.un.org>

Resources for teachers and students on a variety of global and United Nations-related issues, including disarmament and non-proliferation.

United Nations Institute for Disarmament Research

www.unidir.org

In depth information about disarmament-related issues. Subscribe to *Disarmament Forum* at www.unidir.org/html/en/disarmament_forum.php.

United Nations Office for Disarmament Affairs

www.un.org/disarmament

Information and links to United Nations-related disarmament issues and bodies, including weapons of mass destruction, conventional weapons, status and text of treaties, databases and more.

Weapons of Mass Destruction Commission

www.wmdcommission.org

Comprehensive information about nuclear, biological and chemical weapons. Read *Weapons of Terror* (2006).

DISARMAMENT: A BASIC GUIDE can be found online at <http://www.un.org/disarmament/HomePage/ODAPublications/AdhocPublications/PDF/guide.pdf>.

APPENDIX

Arms Control and Disarmament Treaties and Related Instruments

with dates of entry into force

Antarctic Treaty	1961
African Nuclear-Weapons-Free Zone Treaty (Treaty of Pelindaba)	Not yet EIF
Agreed Framework (United States and Democratic People's Republic of Korea)	1994
Anti-Ballistic Missile Treaty (United States & U.S.S.R.)	1972 <i>U.S. withdrew 2002</i>
Biological Weapons Convention	1975
Central Asian Nuclear-Weapons-Free Zone Treaty	2009
Chemical Weapons Convention	1997
Comprehensive Nuclear-Test-Ban Treaty	Not yet EIF
Convention on Cluster Munitions	Not yet EIF
Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD)	1978
Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects	1983
Intermediate-Range Nuclear Forces Treaty (United States & U.S.S.R.)	1988

International Code of Conduct against Ballistic Missile Proliferation (Hague Code)	2002
Landmine Ban Convention	1999
Latin America Nuclear-Weapons-Free Zone Treaty (Treaty of Tlatelolco)	1969
Missile Technology Control Regime	1993
Moon and Celestial Bodies Treaty	1984
Nuclear Non-Proliferation Treaty	1970
Open Skies Treaty	2002
Outer Space Treaty	1967
Partial Test Ban Treaty	1963
Peaceful Nuclear Explosions Treaty (United States & U.S.S.R.)	1976
Seabed Arms Control Treaty	1972
South Pacific Nuclear-Weapon-Free Zone Treaty (Treaty of Rarotonga)	1986
Southeast Asia Nuclear-Weapon-Free Zone Treaty (Bangkok Treaty)	1997
Strategic Arms Limitation Treaty (SALT I) (United States & U.S.S.R.)	1969-72
Strategic Arms Limitation Treaty (SALT II) (United States & U.S.S.R.)	Did not EIF
Strategic Offensive Reductions Treaty (SORT) (United States & U.S.S.R.)	2002
Strategic Arms Reduction Treaty (START I) (United States & U.S.S.R.)	1994 <i>Expires December 2009</i>

Strategic Arms Reduction Treaty (START II)
(United States & U.S.S.R.)

Did not EIF

Threshold Test Ban Treaty

1990

NOTE: All information is current as of June, 2009. Treaties are multilateral unless indicated. Further information and the full texts of the treaties are available at www.un.org/disarmament and www.armscontrol.org.

About the Author

Melissa Gillis is the editor of *Disarmament Times*, the quarterly publication of the New York-based Non-Governmental Organization Committee on Disarmament, Peace and Security. She has written extensively on disarmament-related issues, human rights, women's rights and the conflict in the former Yugoslavia.

To learn more about *Disarmament Times*, go to <http://disarmtimes.org>.