



Disarmament A Basic Guide

Third Edition
by Melissa Gillis



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Melissa Gillis

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Note

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Since 1972, the 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 organizing 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. Learn more at <http://disarm.igc.org>.

SYMBOLS OF UNITED NATIONS DOCUMENTS are composed of capital letters combined with figures. These documents are available in the official languages of the United Nations at <http://ods.un.org>. Specific disarmament-related documents can also be accessed through the disarmament reference collection at <http://disarmament.un.org/library.nsf>.

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

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Foreword

AS A UNITED NATIONS MESSENGER OF PEACE, I believe disarmament is a great cause serving all mankind. It is my passion.

Twice in the twentieth century, the massive build-up of offensive weapons have led to two world wars, with the latter ending in the world witnessing the most destructive weapon ever conceived by man, the atomic bomb.

The development of the atomic bomb led to a nuclear arms race which culminated in the United States and the Soviet Union possessing a total of some 70,000 nuclear weapons between them during the height of the Cold War, a staggering number that had the potential to annihilate all life from our fragile planet.

Atomic bombs were not the only weapons of mass destruction. Man has invented, and the world has witnessed, the use of chemical and biological weapons. Chemical weapons were a mainstay of the First World War when chlorine and mustard gases choked the life out of young soldiers who died agonizing deaths in trenches along the fighting fronts across Europe.

Some histories of biological weapons date back to antiquity or the Middle Ages when warriors would catapult the bodies of plague victims over the walls of defending armies. By the twentieth century, scientists were concocting biological agents and developing missiles that could deliver massive lethal doses of anthrax and even smallpox halfway around the world. Controlling these biological poisons, once unleashed, would be impossible and the victims would be average citizens, mothers, fathers and children, who never signed up for battle.

As scary as weapons of mass destruction are, most wars are fought with conventional weapons, which are not only large ones such as battlefield tanks and artillery canons but also include small arms such as machine guns, assault rifles and handguns. Around the world, these weapons are not only used in battle, but are all too often diverted through payoffs and corruption to terrorist groups, drug lords and criminal organizations. They are then often used to terrorize communities and to undermine peace and development.

So what can we do? In the pages that follow, you will learn the basics of disarmament, including what the United Nations, Governments and civil society groups are doing to reduce and abolish weapons that have brought so much anguish and suffering to so many.

Treaties now exist to eliminate biological and chemical weapons, and to outlaw certain types of conventional weapons. Most people now believe, even if some Governments haven't yet realized it, that nuclear weapons are not a security shield, but are a collective threat to all of us. A world free of nuclear weapons is a world that I wish for this generation and all future generations.

Read, learn and become involved. Knowledge and information, and not weapons, are the true sources of power.

Michael Douglas

United Nations Messenger of Peace



Despite a downward trend in conflict, in 2010, the world's

Governments spent US\$ 1.63 trillion

on military expenditures, according

to the Stockholm International

Peace Research Institute (SIPRI). This

amounts to \$229 for each person

alive today.

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 twentieth 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-twentieth century conflicts were active combatants.

By contrast, twentieth-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 5 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 twentieth 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. Between 2001 and 2009, military spending increased by an average of 5.1 per cent annually (SIPRI).

War in the Twenty-first Century

THE OVERWHELMING MAJORITY OF VIOLENT CONFLICTS today are fought within States, their victims mostly civilians. Certain marginalized populations—women, children, the elderly, the disabled, the poor—are particularly vulnerable in conflict and bear the brunt of its harm globally. Most conflicts are fought primarily with small arms and light weapons, which account for 60 to 90 per cent of direct conflict deaths—some 250,000 each year, according to the Small Arms Survey (2007).

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. In 2010, there were 15 major armed conflicts, according to SIPRI. The most severe conflicts and the number of genocides have declined dramatically in recent years (Human Security Brief 2007). 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. The 2009 Human Security Report noted that mortality rates actually decline in wartime because they are already declining in peacetime and few of today's wars kill enough people to reverse the pre-war trend.

Most war deaths, however, are not a direct result of combat, but instead result from war-exacerbated disease and malnutrition. In some wars there are 10 or more deaths from disease and malnutrition for every death from violent combat injury.

DESPITE THE DOWNWARD TREND IN CONFLICT, in 2010, the world's Governments spent an estimated US\$ 1.63 trillion on mili-

tary expenditures, a level of spending not seen since the fall of the Berlin Wall in 1989. This figure amounts to \$229 for each person in the world. The United States alone accounts for \$698 billion or more than 43 per cent 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 the poor suffer disproportionately as a result of conflict. For many of the world's poor people, war and criminal violence are directly impeding their chances of development. The United Kingdom's Department for International Development has estimated that half of the world's poorest people could be living in States that are experiencing, or are at risk of, violent conflict. According to the World Bank, no low-income, fragile or conflict-affected State has yet achieved a single Millennium Development Goal.

THE WORLD IS AWASH IN WEAPONS. There are an estimated 875 million or more small arms in circulation, according to the Small Arms Survey.

At the beginning of 2011, nuclear-weapon States possessed more than 20,500 nuclear warheads, more than 5,000 of which are deployed and ready for use; almost 2,000 of these are kept on high alert (SIPRI), ready to be launched within minutes. World stocks of fissile materials, the materials used to make nuclear weapons, are nearly 1,700 tons, enough to produce tens of thousands of new warheads (International Panel on Fissile Materials).

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

Women and children are increasingly becoming 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 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), whose nuclear- and non-nuclear-weapon States parties have differed over the basic aims and goals of the NPT. 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 consensus reached at the 2010 NPT Review Conference on actions for advancing the Treaty’s principles and objectives, and calls for nuclear abolition from prominent current and former leaders of Government and civil society. The question now is whether these will be translated into serious, irreversible action towards 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 discouraging. In 2008, more than 100 countries successfully negotiated a ban on cluster munitions, which continues to gather support and entered into force in 2010. The membership of the Mine Ban Convention, which has effectively halted the global trade in landmines, also continues to grow.

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.

Understanding Human Security

“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

ALL OF THIS COMES AT A TIME when it is increasingly being recognized in the international community that there needs to be a broadening of the way we think about security. Human security (with its focus on the security of the individual within society) needs to be added to our ideas about national security (with its focus on defence of the State from external attack). 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 destabilizing just as armed conflict is destabilizing, and often they go hand-in-hand with violent conflict.

At its most basic level, 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 and resources 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 its 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. This does not even begin to factor into the equation the billions of dollars that have been spent and will be needed to rebuild societies shattered by conflict and violence.

THE ECONOMIC BURDEN on all nations is tremendous, but for the poorest within societies the price is often unbearable. The Governments of too many nations choose armaments over the much-needed social programs, education and healthcare on which their citizens, particularly their most vulnerable depend. For those countries directly affected by conflict, economic development halts, and is often reversed, according to the World Bank.

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 \$1.6 trillion spent each year by the world's

Governments to arm and make themselves ready for war could go a long way towards easing poverty, providing universal access to education and healthcare, fighting discrimination and inequities and protecting the environment and human rights. In short, redirecting these funds could go a long way towards making the world more secure than it is right now. (In fact, just a tiny portion of it—less than five per cent—could make a significant difference in terms of security and development. See the next chapter, on “Global Military 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 organizations have legitimate responsibilities to maintain defence. But we must ask: How could—indeed, how must—our budgets be re-prioritized 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 to think about security in new ways, to re-prioritize 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, Member States of the United Nations have fallen short of these visions and goals. The organization has been crippled by a Cold War, by competing regional blocs, and by obstructionist nations. Yet States have come together to achieve impressive ends—treaties banning chemical and biological weapons,

landmines and cluster munitions, and treaties curbing the proliferation of nuclear weapons and calling for nuclear disarmament. And there are important forums 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 organization standing above the world's nations, or even an organization standing next to them. It is an organization 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 and military spending, but also to think about disarmament and security in new ways, making the security of the world's people central to the disarmament and security agenda.

CHAPTER 2

Global Military 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, thirty-fourth President of the United States

“THE WORLD is over-armed and peace is under-funded.”

BAN KI-MOON, United Nations Secretary-General

“WE SHOULD NOTE that schools have a better record of fighting terrorism than missiles do and that wobbly governments can be buttressed not just with helicopter gunships but also with school lunch programs (at 25 cents per kid per day).”

NICHOLAS KRISTOF, *The New York Times* columnist and Pulitzer Prize recipient

GLOBAL MILITARY EXPENDITURE, after many years of growth in the Cold War period, decreased from US\$ 1.2 trillion 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. According to the Stockholm International Peace Research Institute

Top 10 Military Spenders, 2010

Country	Amount	Rank
United States	\$698	1
China	(\$119)*	2
United Kingdom	\$59.6	3
France	\$59.3	4
Russian Federation	(\$58.7)*	5
Japan	\$54.5	6
Saudi Arabia	\$45.2	7
Germany	\$45.2	8
India	\$41.3	9
Italy	\$37.0	10

SOURCE: SIPRI, 2011. The spending figures are in billions of current (2010) United States dollars.

*Parentheses indicate a SIPRI estimate.

(SIPRI), 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 period: in 1998 it spent one fifth of what the former Soviet Union had spent 10 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 2010 were an estimated \$1.63 trillion, according to SIPRI, a 1.3 per cent increase in real terms from the previous year. (This is a slower rate of increase as compared to previous years, notes SIPRI, due in part to the effects of the global economic crisis.) This figure represents 2.6 per cent of global Gross Domestic Product (GDP) or \$229 for each person in the world. Almost all regions and subregions have seen significant increases since 2000. From 2009 to 2010, military

spending grew most rapidly in South America, Africa and Oceania, however, it fell in Europe.

Military spending is highly concentrated; ten countries worldwide account for 75 per cent of the total (SIPRI). The United States, which is first in military spending, alone accounts for nearly 43 per cent of total global military spending. It is followed by China which accounts for approximately 7.3 per cent of the global total. The United Kingdom, France, the Russian Federation, Japan and Saudi Arabia account for less than 4 per cent each.

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. However, 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 \$1.63 trillion to build up military forces and weaponry and to fight wars has meant not spending scarce resources to meet social responsibilities. It has meant not meeting the basic needs of people globally.

The importance of reducing military expenditures, achieving basic rights and meeting basic needs has been recognized many times in the years since the founding of the United Nations. Early proposals in the United Nations focused on reducing expenditures of the nuclear-weapon States and other militarily important States in the hope of freeing up funds for economic and social development aid, particularly in developing countries, but such proposals proved unfeasible. They did, however, prompt the General Assembly to develop, in 1980, the United Nations Standardized Instrument for Reporting Military Expenditures, which provides a

Military Spending by Region, 2010

Africa	\$30
Americas	\$791
Asia/Oceania	\$317
Europe	\$382
Middle East	\$111

SOURCE: SIPRI, 2010. Amounts are in billions of current (2010) United States dollars.

mechanism for all countries to report such expenditures annually. In late 2011, the instrument was renamed the United Nations Report on Military Expenditures. It contains detailed data on military personnel, operations and maintenance, procurement and construction and research and development.

More recent United Nations efforts to highlight the need for greater funding to meet global social needs culminated with the United Nations Millennium Declaration signed in September 2000. In the Declaration, world leaders committed their nations to a new global partnership to reduce extreme poverty and set out a series of time-bound goals—expected to be achieved by 2015—that have become known as the Millennium Development Goals. Significant progress has been made towards achieving some of the goals, but most will not be met primarily because funding has not materialized. The amounts needed to fund these goals are significant but they are only a small 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 from 2011 to 2015). That represents only three to four per cent 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-

Financial Value of Global Arms Exports (2007)

World Total	\$50.6
United States	\$12.232
Russian Federation	\$8.3050
France	\$4.65
United Kingdom	\$3.6

SOURCE: SIPRI, 2008. Amounts are in billions of fiscal year 2008 United States dollars.

producing companies globally (excluding companies in China) totaled \$400.7 billion in 2009, an increase of \$14.8 billion over the previous year. Arms sales, like arms expenditures, are highly concentrated. Just 45 United States companies accounted for 62 per cent of the combined arms sales of the top 100 companies. Thirty-three Western European companies accounted for an additional 30 per cent.

In the years 2006 to 2010, approximately 75 per cent 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 (SIPRI). Countries in Asia and Oceania were the largest recipients of major conventional weapons in the same time period, accounting for 43 per cent of the global total, followed by Europe (21 per cent) and the Middle East (17 per cent). India was the largest single country importer of major conventional weapons, with China second (SIPRI).

The volume of international transfers of major conventional weapons increased by 24 per cent over the previous five years, continuing an upward trend. Military spending cuts proposed in Western Europe and the United States in 2010 may affect future sales, according to SIPRI, but the impact is not yet apparent.

Cost of Achieving the 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 2.4%-3.3%

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 0.6%-1.8%

GOAL Promote Health

Reduce by two thirds the under-five mortality rate, reduce by three fourths the maternal mortality rate, reverse the spread of HIV/AIDS

COST \$20-\$25 billion

PERCENTAGE OF GLOBAL MILITARY SPENDING 1.2%-1.5%

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%-1.3%

JUST ONE MORE FIGURE TO CONSIDER: The \$1.63 trillion spent on global military expenditures in one year would fund the United Nations regular budget at current (2010) levels for more than 700 years.

SOURCE: The World Bank, "The Costs of Attaining the Millennium Development Goals".

NOTE: The cost is in billions of United States 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.

For More Information

Stockholm International Peace Research Institute

www.sipri.org

Bonn International Center for Conversion

www.bicc.de

There are still some 20,500
nuclear warheads in the
world, enough to destroy civilization
many times over and destroy most
life on earth.

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, Nobel Prize in Physics laureate

“THE STONE AGE may return on the gleaming wings of Science, and what might now shower immeasurable material blessings upon mankind, may even bring about its total destruction.”

WINSTON CHURCHILL, United Kingdom Prime Minister, 1940-1945, 1951-1955

NUCLEAR WEAPONS ARE THE MOST DESTRUCTIVE WEAPONS on earth. A single bomb has the potential to destroy an entire city, kill millions and contaminate air, land and water for many kilometres around the original blast site for thousands of years. In the event of a major nuclear war, all of civilization would be 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 of these effects, it is unlikely that any of the currently deployed stocks of nuclear weapons could ever really be used in a way that avoids grave humanitarian consequences and damage to the environment and climate. Although nuclear weapons have been detonated 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), fusion (the combining of isotopes of a light element such as hydrogen) or both, in the case of modern thermonuclear weapons. 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 have an explosive yield roughly 8 to 100 times larger than the bombs dropped on Hiroshima and Nagasaki, which averaged the equivalent of 18,000 tons of TNT. Modern nuclear weapons typically contain both HEU and plutonium. The warheads are generally deployed for delivery on land- or submarine-based ballistic missiles, air- or surface-launched cruise missiles, or gravity bombs aboard strike aircraft and bombers. Nuclear weapons have been previously deployed for delivery by short-range rockets and artillery, sea mines, torpedoes and depth charges. Warheads in some modern arsenals can be delivered to any point on the earth 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 used to power the majority of the world's nuclear power plants is enriched to about 3.5 per cent U-235 and cannot be used as material for a bomb in this state. Uranium enriched above 20 per cent U-235 is considered HEU and is directly usable in a nuclear weapon. Weapons-grade uranium, however, is generally considered that which has been enriched to a concentration of 90 per cent U-235 or greater.

Plutonium, however, need not be "enriched". Plutonium of any isotopic composition is thought to be suitable for direct use in a nuclear weapon, except plutonium containing more than 80 per cent of the isotope Pu-238. Plutonium does not occur naturally,

but is a by-product 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 for which the possibility of manufacturing a nuclear explosive device cannot be excluded.

The significant quantities are 25 kilograms of U-235 contained in HEU, 8 kilograms of plutonium and 8 kilograms of U-233. Modern weapons may contain perhaps only half as much fissile material. According to the International Panel on Fissile Materials (IPFM), as of 2010 global stocks of HEU totalled approximately 1,475 +/- 125 tons, and global stocks of separated plutonium totalled approximately 485 +/- 10 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 end of the Cold War, 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.

As of 2011, there are approximately 5,000 nuclear weapons deployed and ready for use globally, according to the Stockholm International Peace Research Institute (SIPRI). Almost 2,000 of these are reportedly kept on high alert, ready to be launched within minutes. In total, there are more than an estimated 20,500 nuclear warheads (operational, spares, active and inactive storage and intact warheads scheduled for dismantlement).

Nuclear-Weapon States

THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS (NPT) defines five States as nuclear-weapon States: China, France, the Russian Federation, the United Kingdom and the

World Nuclear Forces, 2011

State	Deployed Warheads	Other Warheads	Total
United States	2,150	6,350	8,500
Russian Federation	2,427	8,570	11,000
United Kingdom	160	65	225
France	290	10	300
China	--	200	240
India	--	80-100	80-100
Pakistan	--	90-110	90-110
Israel	--	80	80
Total	5,027	15,500	20,530

SOURCE: SIPRI Yearbook, 2011. All figures are approximate.

United States. Of these, the United States, the Russian Federation, France and the United Kingdom have been reducing their deployed arsenals from Cold War levels. According to SIPRI (2011), however, all are either deploying new nuclear weapons systems or have announced their intention to do so. While they have publicly reaffirmed their commitments to nuclear disarmament, none appear ready to give up their nuclear arsenals in the foreseeable future.

The **Russian Federation** and the **United States**, with a combined total of more than 4,500 deployed warheads, possess the vast majority of the world's nuclear arsenal (more than 90 per cent of deployed weapons). Since the 1980s, the two countries

have negotiated a series of bilateral treaties aimed at reducing the number of nuclear weapons deployed by each. Their most recent agreement, the Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START), limits the two countries to 1,550 deployed strategic warheads each. The New START does not require the dismantlement of warheads taken off deployment. The United States has expressed a desire to include tactical weapons and strategic warheads held in reserve in the scope of its next arms reduction agreement with the Russian Federation.

According to IPFM, as of 2008, the **United States** and the **Russian Federation**, along with the **United Kingdom** and **France** had officially announced a moratorium on their production of fissile materials for weapons. **China**, which may have kept its nuclear arsenal roughly constant for decades, is believed to have also ceased fissile material production, though it has not announced an official moratorium (IPFM).

Regional Nuclear Issues

South Asia

INDIA and **Pakistan** have not joined the NPT and are presumed to be building their nuclear weapon stockpiles. Both countries have tested nuclear weapons and are believed to be continuing to produce fissile materials for use in nuclear weapons, according to IPFM, as well as new nuclear-weapon delivery systems.

Northeast Asia

THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA (DPRK) conducted nuclear explosive tests in 2006 and 2009, prompting the adoption of resolutions 1718 (2006) and 1874 (2009) by the Security Council. Non-government estimates state that the DPRK may have enough weapons-grade plutonium for 5 to 12 weapons. The Six-Party talks (also involving China, Japan, the Russian Federation, the Republic of Korea and the United States) continue to be the

primary forum for negotiating the denuclearization of the Korean Peninsula, though no talks have been held since 2008.

Middle East

SINCE 1974, the General Assembly has endorsed the objective of establishing a zone in the Middle East free of nuclear weapons. No State in the region objects to such a goal. In 1995, as part of the decision to indefinitely extend the NPT, States parties adopted a resolution that among other things called for all States in the region to take practical steps towards the establishment of an effectively verifiable Middle East zone free of nuclear weapons and all other weapons of mass destruction—chemical and biological—and their delivery systems. The 2010 NPT Review Conference reaffirmed this goal and called for the convening of a conference in 2012 on the establishment of such a zone.

Israel is the only State in the region not party to the NPT and is believed to possess nuclear weapons. According to IPFM, Israel may continue to produce fissile materials for use in nuclear weapons, although its nuclear arsenal may have been roughly constant for decades.

The nuclear programme of the **Islamic Republic of Iran** continues to attract international attention. Since 2004, the IAEA has reported that all declared nuclear material in Islamic Republic of Iran is accounted for, in accordance with its NPT comprehensive safeguards agreement. However, since 2006, the Security Council has adopted a number of resolutions in which it called upon the Islamic Republic of Iran to suspend all uranium enrichment and heavy water-related activities and imposed sanctions.

Early Efforts Towards Nuclear Disarmament

“The recognition of the need for nuclear disarmament and the question of how to achieve it are as old as the nuclear age” according to IPFM. In its very first resolution, the United Nations General Assembly established a United Nations Atomic Energy Commis-

sion and set forth the goal of eliminating all weapons “adaptable to mass destruction”. Official United States and Soviet proposals to the United Nations in 1946 laid out ways to achieve this goal. The Soviet proposal, known as the Gromyko Plan, included the first proposed text for a nuclear disarmament treaty. At the time, with no long-range missiles, or civilian nuclear energy, and the Cold War yet to come, the elimination of nuclear weapons seemed a “comparatively simple task”, with only one nuclear-weapon State. Early hopes for nuclear disarmament went unrealized, however, with the onset of the Cold War and the nuclear arms race between the United States and the Soviet Union.

One of the first successes to restrain the nuclear arms race came in 1963 in the form of the Partial Test Ban Treaty, which aimed to end nuclear weapons testing in the atmosphere, under water and in outer space. Explosive testing underground, continued, however, and the number of nuclear-weapon States grew by the end of the 1960s to include the United Kingdom, France and China. Efforts to curb further nuclear proliferation culminated in the entry into force of the NPT in 1970. Over the next two decades a number of countries abandoned nuclear weapons programmes, but India, Israel and Pakistan remained outside the controls put in place in the NPT and developed their own nuclear arsenals, as did the DPRK. Despite ongoing efforts by civil society groups and proposals put forth by current and former world leaders, the goal of eliminating nuclear weapons remained elusive.

In 1996, the International Court of Justice, the highest court in the United Nations system, issued a unanimous advisory opinion ruling that article VI of the NPT required nuclear-weapon States parties to the Treaty “to bring to a conclusion negotiations leading to nuclear disarmament”. Four years later, at the 2000 NPT Review Conference, nuclear-weapon States agreed to an unequivocal undertaking “to accomplish the total elimination of their nuclear arsenals”. At the most recent NPT Review Conference (May, 2010), a large number of States supported the idea of beginning work

towards a comprehensive nuclear weapons convention, an idea put forward by United Nations Secretary-General Ban Ki-moon in his five-point plan for nuclear disarmament. The Conference, however, was unable to reach agreement to pursue negotiations on a treaty to abolish nuclear weapons.

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. Former IAEA Director General Mohamed ElBaradei has stated, "In 1970 it was assumed that relatively few countries knew how to acquire nuclear weapons. Now, 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 5 kilograms of weapons-usable fissile material.

While many of the world's nuclear stocks are adequately guarded, there are concerns that some stocks, 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. As of 1 September 2010, 111 States participate in the ITDB Programme. In some cases, non-participating States have also provided information to the ITDB. For the period July 2009 to June 2010, 222 incidents were confirmed and included in the ITDB. During this period, five incidents involved HEU or plutonium, according to the IAEA.

A mistaken launch of nuclear weapons is also still a real possibility, heightened by the fact that perhaps 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 them up) are considerable. 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 metres of radioactive waste.

The Case for a World Free of Nuclear Weapons

“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, Head of State of the former Soviet Union, 1988-1991, and Nobel Peace Prize laureate

THE NUCLEAR NON-PROLIFERATION REGIME is in an increasingly fragile state. Regional security concerns, long-standing political disputes and the non-universality of key international treaties continue to perpetuate an atmosphere of distrust and to create incentives for States to develop nuclear weapons. Efforts to promote the global expansion of nuclear energy, particularly in response to the threat of climate change, have given rise to complicated new concerns regarding the adequacy of the existing nuclear non-proliferation framework. The nuclear disarmament commitments of the nuclear-weapon States remain unfulfilled and the doctrine of nuclear deterrence continues to prove dangerously contagious. The resulting imbalance of obligations between the nuclear-weapon States and non-nuclear-weapon States constitutes a barrier to the establishment of stronger norms needed to ensure the implementation of non-proliferation objectives. There is a growing realization that these trends are contributing to an unsustainable

political and security environment, and that a solution to these issues should be pursued according to a comprehensive legal framework prohibiting the development, use and stockpiling of nuclear weapons, backed by a strong system of verification.

In addition, there are many arguments specifically supporting the abolition of nuclear weapons:

- **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 ILLEGAL.** The International Court of Justice ruled in 1996 that the threat or use of nuclear weapons would generally be contrary to the rules of international law, particularly those applicable in armed conflict. Any use of nuclear weapons could have catastrophic humanitarian consequences, especially as the effects of the weapons are inherently indiscriminate (due to their enormous yield) and uncontrollable (due to the persistence of radiation).
- **THE RISK OF THE INTENTIONAL OR ACCIDENTAL USE OF NUCLEAR WEAPONS REMAINS AS LONG AS THE WEAPONS EXIST.** Prominent international commissions, including the Canberra Commission (1996), the Weapons of Mass Destruction Commission (2006) and the International Commission on Nuclear Non-Proliferation and Disarmament (2009) have come to a consensus that as long as nuclear weapons are possessed by some, others will want them. As long as the weapons exist, there is a chance that one day they will be used again, by accident or by design. Any such use would be catastrophic.

- **THE DEVELOPMENT AND POSSESSION OF NUCLEAR WEAPONS CANNOT ADDRESS CONTEMPORARY THREATS AND CHALLENGES.** Nuclear weapons cannot address the root causes of terrorism, nor can they deter terrorist acts. The continued development and deployment of nuclear weapons diverts Government and societal resources that could be applied to addressing the threats posed by climate change and poverty.

THERE ARE A NUMBER OF GROUPS organizing to achieve the goal of a world free of nuclear weapons. Please see chapter 15 for more information.

Treaties

Treaty on the Non-Proliferation of Nuclear Weapons (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 in the context of general and complete disarmament. The Treaty represents the only legally binding commitment by the nuclear-weapon States to nuclear disarmament. 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 originally recognized 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 towards 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-weapon test explosions, opened for signature in September 1996 but has not yet entered into force. The Treaty was intended to further nuclear disarmament.

ment by constraining the ability of nuclear-armed States to develop their nuclear arsenals, which, until the 1990s, was primarily based on data obtained from nuclear explosive testing. As of July 2011, the CTBT has been ratified by 154 countries but it cannot take effect until nine additional countries listed in annex 2 of the Treaty ratify it: China, DPRK, Egypt, India, Indonesia, the Islamic Republic of Iran, Israel, Pakistan and the United States. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (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 the negotiation of a verifiable treaty banning the production of fissile materials for nuclear weapons. The Conference on Disarmament (CD), which has been mandated to negotiate the treaty, has long been considered to be the sole multilateral negotiating forum for disarmament treaties. The CD, however, has failed since 1999 to agree to commence negotiations or formal discussions on any topic. In 2009, the CD adopted a programme of work for the first time in more than a decade, but was unable to implement it and remained deadlocked through 2010. Once negotiations get underway, there will be significant hurdles to overcome, including whether such a treaty would be narrow in scope (ending production of fissile material) or comprehensive (addressing existing military stocks). The scope of verification under such a treaty as well as the list of materials subject to the treaty will also be contentious issues. (See the website of the International Panel on Fissile Materials at www.fissilematerials.org for more information.)

Nuclear-Weapon-Free Zones (NWFZ)

THE ESTABLISHMENT OF NWFZS is a regional approach to strengthen global nuclear non-proliferation and disarmament norms and to consolidate international efforts for peace and security. An NWFZ is a specified region in which countries generally commit themselves not to develop, manufacture, acquire, test or possess nuclear weapons. NWFZs currently encompass the following areas, which includes all the land-based territory in the Southern Hemisphere: Africa (Treaty of Pelindaba), Latin America and the Caribbean (Treaty of Tlatelolco), South-East Asia (Treaty of Bangkok), the South Pacific (Treaty of Rarotonga) and Central Asia (Treaty on a Nuclear-Weapon-Free Zone in Central Asia). International treaties also prohibit the stationing of nuclear weapons in Antarctica, on the sea-bed and in outer space or on other celestial bodies. Each NWFZ treaty includes a protocol, for the nuclear-weapon States, that commits these States not to use or threaten to use nuclear weapons against States parties. (As of June 2011, however, among the NWFZs, only the zone 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 be recognized as a nuclear-weapon-free State and has adopted national legislation to reinforce its status.

International Day against Nuclear Tests

ON 2 DECEMBER 2009, the sixty-fourth session of the United Nations General Assembly declared 29 August the International Day against Nuclear Tests by unanimously adopting resolution 64/35. The Day is meant to galvanize the United Nations, Member States, intergovernmental and non-governmental organizations, academic institutions, youth networks and the media to inform, educate and advocate about the necessity of banning nuclear tests as a valuable step towards achieving a safer world. The Preamble of the resolution emphasizes that “every effort should be made to end nuclear tests in order to avert devastating and harmful effects

on the lives and health of people” and that “the end of nuclear tests is one of the key means of achieving the goal of a nuclear-weapon-free world”.

For More Information

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/WMD/Nuclear/>

United Nations Cyberschoolbus

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

International Association of Lawyers against Nuclear Arms

www.ialana.net

International Physicians for the Prevention of Nuclear War

www.ippnw.org

Natural Resources Defense Council

www.nrdc.com

Nuclear Files.org (Nuclear Age Peace Foundation)

www.nuclearfiles.org

Nuclear Non-Proliferation Treaty

“Progress on disarmament cannot await a world free of war, nuclear proliferation or terrorism. Progress on non-proliferation cannot await the elimination of the last nuclear weapon. Advancing the peaceful uses of nuclear energy cannot be held hostage to either disarmament or non-proliferation. From the earliest days of the NPT, the international community understood that these goals must be pursued simultaneously. They are interdependent and mutually reinforcing.”

BAN KI-MOON, United Nations Secretary-General

THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS (NPT), a cornerstone agreement in efforts to constrain the spread of nuclear weapons globally and to achieve nuclear disarmament, entered into force in 1970. The Treaty has 190 States parties, including the five States recognized under the Treaty as possessing nuclear weapons: China, France, the Russian Federation, the United Kingdom and the United States. Three countries that have or are suspected of having nuclear weapons are currently outside the NPT: India, Israel and Pakistan. The Democratic People's Republic of Korea announced its withdrawal from the Treaty in 2003.

The NPT is often described as a grand bargain between the nuclear-weapon States and the non-nuclear-weapon States. In exchange for the commitment of non-nuclear weapon States not to acquire nuclear weapons, the nuclear-weapon States agreed

to cease the nuclear arms race and accomplish the elimination of their nuclear arsenals. All States parties agreed to recognize the right of the parties to develop nuclear energy for peaceful purposes, in conformity with the basic non-proliferation obligations of the Treaty.

Non-Proliferation and Safeguards

UNDER THE TREATY, the non-nuclear-weapon States agreed not to manufacture or otherwise acquire nuclear weapons or nuclear explosive devices, not to receive the transfer or accept control over such weapons or devices, and not to seek or receive assistance in the manufacture of such weapons or devices. For the purpose of verifying their obligations under the Treaty, the non-nuclear-weapon States agreed to accept safeguards administered by the International Atomic Energy Agency (IAEA) on all source and special fissionable material in their territory or under their control. The IAEA is responsible for certifying that non-nuclear-weapon States parties to the Treaty have not diverted nuclear material from peaceful purposes for use in nuclear weapons.

Since coming into force in 1970, the NPT has largely been successful, although not perfect, at containing the spread of nuclear weapons globally. Several States remain outside the Treaty, believed to have acquired nuclear weapons after the NPT entered into force. The result of this initiative was the adoption in 1997 of the model additional protocol, with the adherence to more stringent safeguards procedures being voluntary.

Nuclear Disarmament

THE TREATY CONTAINS THE ONLY LEGALLY BINDING COMMITMENT requiring the nuclear-weapon States to accomplish nuclear disarmament. Article VI of the Treaty requires all States parties to negotiate in good faith on effective measures related to the cessation of the nuclear arms race and to nuclear disarmament, as well as on a treaty on general and complete disarmament under strict and effective international control. Progress towards imple-

menting this obligation has been slow. The countries possessing the largest nuclear arsenals, the Russian Federation and the United States, have concluded numerous bilateral agreements since the 1970s aimed at reducing their nuclear arsenals and enacting transparency measures to enhance stability in crises and facilitate verification.

Despite the entry into force of the NPT, global nuclear arsenals continued to increase until the mid-1980s, peaking at around 70,000 warheads. Today the total number of warheads is around 20,500, with more than 5,000 of those actively deployed. Efforts on further reductions have continued since the end of the Cold War, though at a slower pace over the past decade. In April 2010, the Russian Federation and the United States signed the Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START), which takes over from the 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms, which expired on 5 December 2009. It supersedes the 2002 Treaty on Strategic Offensive Reductions. France and the United Kingdom have also undertaken unilateral reductions of their nuclear forces as well as some transparency measures.

While the number of nuclear weapons has decreased, their 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.

United Nations Secretary-General Ban Ki-moon, addressing world leaders at the 2010 NPT Review Conference, said that the global non-proliferation regime had been asleep for far too long, and it was time to deliver on the deep global aspiration to build a safer world. He informed the body that this Treaty was as important then as when it had been adopted and that progress on disarmament could not await a world free of war or terrorism, nor could success in non-proliferation await the elimination of the last nuclear weapon.¹

¹ Secretary-General at opening on May 2010 NPT Review Conference, New York.

Peaceful Uses of Nuclear Energy

THE TREATY RECOGNIZES the inalienable right of all parties 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.

While many countries believe that nuclear power is an important component in their energy mix, the March 2011 incident at the nuclear power plant at Fukushima in Japan has made a number of countries rethink their commitment to nuclear energy. However, most Governments believe that the issue is not one of doing away with this important power source, but of further strengthening nuclear safety and security standards.

An Increasingly Fragile State

“Thousands of nuclear weapons remain on hair trigger alert. More States have sought and acquired them. Nuclear tests have continued. And every day, we live with the threat that weapons of mass destruction could be stolen, sold or slip away. As long as such weapons exist, so does the risk of proliferation and catastrophic use. So, too, does the threat of nuclear terrorism. . . . Nuclear disarmament is the only sane path to a safer world. Nothing would work better in eliminating the risk of use than eliminating the weapons themselves.”

BAN KI-MOON, United Nations Secretary-General

THE NUCLEAR NON-PROLIFERATION TREATY continues to face many challenges. 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. A major source of tension is the long-standing disagreement whether non-proliferation or disarmament should take precedence.

Review Process

THE NPT STIPULATES that States parties meet every five years to review the operation of the Treaty to ensure that its purposes and provisions are being realized.

THE 1995 NPT REVIEW AND EXTENSION CONFERENCE, in addition to reviewing the NPT, was charged with deciding whether the NPT should be extended and how to do so: for one period, for a rolling set of periods, indefinitely or not at all. States parties agreed on the indefinite extension of the Treaty, in connection with the adoption of two other decisions and a resolution on establishing a zone free of nuclear and other weapons of mass destruction in the Middle East. One decision was on strengthening the Treaty's review process and the other dealt with principles and objectives for achieving disarmament and non-proliferation. 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" by the nuclear-weapon States of nuclear disarmament.

WHEN THE 2000 NPT REVIEW CONFERENCE was convened in New York in April, expectations were low. The three preparatory meetings prior to the conference had failed to reach consensus on important issues 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). The 1998 nuclear-weapon test explosions by India and Pakistan, although not Treaty

members, also had repercussions on the Conference, highlighting the need for universality.

Despite these apparent setbacks, the Conference was able to adopt by consensus a substantive final document. The centrepiece of the final document was agreement on 13 practical steps for systematic and progressive efforts to achieve the elimination of nuclear weapons. Key steps agreed upon included: an “unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals”; specified “steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all”; and the application of the principle of irreversibility to disarmament and arms control measures.

THE 2005 NPT REVIEW CONFERENCE was convened in May in New York and ended without agreement on a substantive outcome document, amid deep divisions among States parties regarding the status of previously agreed commitments, including the outcomes of the 1995 and 2000 Review Conferences.

THE 2010 NPT REVIEW CONFERENCE, which was convened in May in New York, succeeded in adopting a substantive final document. It included a review of the operation of the Treaty prepared at the responsibility of the President of the Review Conference, as well as an agreed action plan containing 64 forward-looking measures on each of the three pillars of the Treaty—nuclear disarmament, nuclear non-proliferation and peaceful uses of nuclear energy—and on the 1995 Resolution on the Middle East. The final document called for a 2012 conference on the establishment of a Middle East zone free of nuclear weapons and all other weapons of mass destruction. It also established concrete benchmarks to be achieved by the 2015 Review Conference and carried forward the prevailing political momentum for greater progress leading to the total elimination of nuclear weapons.

For More Information

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/WMD/Nuclear/>

Roughly 62 per cent of the
over 70,000 metric tonnes
of declared chemical warfare
agents have been destroyed as of
September 2010.

ORGANISATION FOR THE PROHIBITION
OF CHEMICAL WEAPONS

Chemical Weapons

THE USE OF CHEMICAL WEAPONS dates back 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 agonizing suffering and to cause significant battlefield casualties. Since World War I, chemical weapons have caused more than one million casualties globally.

The use of chemical weapons during World War I was not particularly sophisticated or specialized. Such weapons basically consisted 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, which prohibited 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 (although they were not used on European battlefields). 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, notably by Iraq in the 1980s against the Islamic Republic of Iran.

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 suc-

cess. However, challenges remain, most importantly the slow rate of destruction of vast chemical arsenals by the Russian Federation and the United States. By February 2011, the Russian Federation had destroyed 49 per cent of its chemical weapons declared under the Convention and the United States had destroyed 86 per cent by April 2011. The Director-General of OPCW¹ in his statement to the fifteenth session of the Conference of the States Parties noted that the Russian Federation and the United States had indicated that the completion of the destruction of their respective declared chemical stockpiles might be prolonged beyond the 29 April 2012 deadline. Other challenges to the CWC include the fact that several States have not joined the Convention. (As of July 2011, 188 States had ratified the Convention. To check the current status, go to www.opcw.org.)

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 1995, the Japanese sect Aum Shinrikyo used sarin gas in attacks on civilians in Japan. Despite extensive expertise and financing, however, Aum Shinrikyo had difficulty stabilizing 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

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/WMD/Chemical/>

Organisation for the Prohibition of Chemical Weapons

www.opcw.org

¹ Director-General statement (document C-15/DG.14) dated 29 November 2010.

Just a few particles of a virus
could infect thousands who
can then become carriers infecting
thousands more.

Biological Weapons

BIOLOGICAL WARFARE and bioterrorism involve the deliberate use of biological agents (such as viruses and bacteria) as weapons against humans, animals or plants. In addition to causing serious illness and death, the use of such weapons could result in widespread disruption and immense economic harm. Rapid advances in 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 biological materials used in these programmes. It was not until the

late 1960s that initiatives were taken to control biological weapons. In 1969, United States President Richard Nixon announced the unilateral dismantlement of the United States offensive bio-weapons 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 have been strong deterrents. They have not, however, provided complete protection from bioweapons development. In the early 1990s it was claimed by defectors who had worked in the programme that the former Soviet Union had conducted a vast, clandestine biological weapons programme in violation of the Convention. This was later confirmed by the Russian Federation leadership, which ordered the termination of all Russian offensive biological weapons programmes in 1992. 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

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. BWC States parties undertake “never in any circumstances to develop, produce, stockpile or otherwise acquire or retain: (1) microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other

peaceful purposes; (2) weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict". The BWC also prohibits assisting or encouraging others to acquire biological weapons, requires States parties to take national implementation measures, and stipulates that the peaceful uses of biological science and technology are to be protected and encouraged. As of July 2011, the Convention had 163 States parties.

In contrast to the Chemical Weapons Convention, the BWC has no implementing body, no means of monitoring implementation or verifying compliance and no mechanism for investigating alleged violations. A modest system of annual exchanges of information, known as the confidence-building measures (CBMs), has been in operation since 1987, but the level of participation has been poor. An attempt in the 1990s to negotiate a protocol to the BWC that would address the main shortcomings of the BWC collapsed in 2001, when the United States administration at the time withdrew its support, sparking a controversy among States parties on the future of the BWC. Since then, the focus of activity of States parties has been on improving and coordinating national implementation of the BWC, in particular through an annual work programme dealing with specific topics and the exchange of technical expertise among a range of different actors and organizations.

The Sixth Review Conference of the BWC, held in Geneva in 2006, reinforced this approach by establishing the Implementation Support Unit (ISU) to assist States parties with the implementation of the Convention, facilitate communication with relevant organizations, and coordinate requests for and offers of assistance. Although the ISU provides administrative support to the BWC, it has no mandate to monitor compliance with the treaty or to investigate violations. At the Seventh Review Conference in December 2011, States parties to the Convention will decide whether to renew and possibly expand the ISU mandate. The Seventh Review Conference will also consider whether any additional

measures can be agreed for compliance, monitoring and investigation of alleged violations.

Types of Biological Weapons

BIOLOGICAL WEAPONS generally comprise two parts—an agent and a delivery device. In addition to their military use as strategic weapons or as weapons on a battlefield, they can be used for assassinations (having a political effect), cause social disruption (for example, through enforced quarantine), kill or remove from the food chain livestock or agricultural produce (thereby causing economic losses) or create environmental problems.

Almost any disease-causing organism (such as bacteria, viruses, fungi, prions or rickettsiae) or toxin (poisons derived from animals, plants or microorganisms, or synthetically produced similar substances) can be used in biological weapons. Historical efforts to produce biological weapons have included: aflatoxin, anthrax, botulinum toxin, foot-and-mouth disease, glanders, plague, Q fever, rice blast, ricin, Rocky Mountain spotted fever, smallpox and tularaemia. The agents can be enhanced from their natural state to make them more suitable for use as weapons.

Delivery devices can also take any number of different forms. Some more closely resemble weapons than others. Past programmes have constructed missiles, bombs, hand grenades and rockets. A number of programmes also constructed spray-tanks to be fitted to aircrafts, cars, trucks and boats. Efforts have also been documented to develop delivery devices for use in assassination or sabotage missions, including a variety of sprays, brushes and injection systems, as well as contaminated food and clothes.

The Threat of Bioterrorism

DESPITE THE FACT that biological warfare agents have been rarely used in modern times and are prohibited, many challenges face the global community regarding such weapons. There are several reasons why the greatest threat posed by biological warfare

agents today may come from possible use by terrorists and 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 atomic bomb”. According to *Reaching Critical Will*, one analysis estimated the cost of inflicting civilian casualties to be \$2,000 per square kilometre with conventional weapons, but only \$1 per square kilometre with biological weapons. Biological agents are relatively easy to make and can be found in nature. While biological weapons could be attractive to terrorists, it should be noted, however, that there are challenges, particularly in turning bioagents into weapons for large-scale use.

The facilities for researching and producing biological agents 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 has many legitimate peaceful uses.

Despite these factors, experts are divided on the magnitude of the bioterrorist threat, according to the Weapons of Mass Destruction Commission (WMDC). Some believe the threat is or will soon be comparable to that posed by nuclear weapons. Others, however, are sceptical 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 confirmed these difficulties. Non-State actors in the United States have used biological agents on multiple occasions—1984 (salmonella), 2001 (anthrax), 2003 and 2004 (ricin)—killing several people, but the incidents, while alarming and chaotic, were by and large localized 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. However, as WMDC points out, past failures by terrorists should by no means be taken to suggest that future attempts would also be unsuccessful.

Given these challenges, it is of the utmost importance that the BWC 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

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/WMD/Bio/>

BWC Implementation Support Unit

www.unog.ch/bwc

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 kilometres (short range) to more than 5,500 kilometres (intercontinental). Some missiles are relatively crude instruments, while others are highly sophisticated and easily redirected. Their potential payloads range from a few kilograms of conventional explosives to megaton-yielding 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, ship-board 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 CATEGORIZED by launch platform (typically either surface—such as ground or water—or air), then sub-categorized by range (see the box below) and by target (for example, anti-ship, anti-tank, anti-aircraft, anti-ballistic, anti-satellite).

Categorizing Ballistic Missiles

MISSILES are subcategorized by range:

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

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

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

Intercontinental ballistic missiles travel more than 5,500 kilometres (3417.541 miles)

Missiles pose a number of concerns for the disarmament community. 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 for both short- and long-range missiles exists.

Proliferation is of growing concern globally, but reaching consensus on how to regulate missiles (or whether to regulate them at all) has proven to be 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 (unlike 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 recognized under the United Nations Charter). Discussions at the United Nations are ongoing in an attempt to find areas of consensus that might be further 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 then 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, about 35 States possess ballistic-missile technology (over 150 kilometres 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, Democratic People's Republic of Korea, France, India, Islamic Republic of Iran, Israel, Pakistan, Russian Federation, United Kingdom and United States), and only the five original 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, more difficult

to detect and more reliable. They also require less training and perform with more accuracy. These reasons have contributed to the proliferation of cruise missiles, which (according to the United States Congressional Research Service, 2008) are produced in approximately 18 States and owned by some 81.

Man-Portable Air Defence Systems

MAN-PORTABLE AIR DEFENCE SYSTEMS (MAN-PADS), or shoulder-fired missiles, are of particular concern. MAN-PADS are attractive to terrorists and insurgents and other non-State actors for a number of reasons. They are portable and concealable, inexpensive and relatively easy to use with proper training. 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 produced by about 25 countries.

Missile Arms Control Regimes

TODAY THE PROLIFERATION OF MISSILE TECHNOLOGY is a critically important issue. In particular, it is linked to the proliferation of nuclear weapons. Modern missiles can be exceptionally accurate and efficient in delivering nuclear weapons over 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. The HCOC, which has 133 subscribing States (as of October 2011), was established in 2002 and seeks to build confidence among its parties through pre-launch notifications and other transparency measures such as submitting an annual declaration of their countries' policies on ballistic missiles and space launch vehicles, including annual information on the number and generic class of ballistic missiles and space launch vehicles launched during the preceding year. HCOC requires participants to exercise maximum possible restraint in the development, testing and deployment of ballistic missiles capable of carrying weapons of mass destruction. One perceived drawback of the Code is that it does not cover cruise missiles.

TO LEARN MORE about the MTCR, go to www.mtcr.info. For the HCOC, go to <http://www.bmeia.gv.at/index.php?id=64664&L=1>.

Missile Defence

MISSILE DEVELOPMENTS IN RECENT YEARS have fuelled support in some countries for constructing missile defences (sometimes called missile “shields”), notes the Weapons of Mass Destruction Commission (WMDC) in its report “Weapons of Terror”. WMDC makes particular note of developments in the Democratic People’s Republic of Korea, the Middle East and in South Asia, 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. The development of missile defence systems themselves, however, poses a significant risk of spurring a new arms race of evermore 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 yet 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.)

In September 2009, United States President Barack Obama abandoned his predecessor’s proposed anti-ballistic missile shield in Eastern Europe and ordered instead the development of a re-configured system designed to shoot down short- and medium-range missiles. The Bush Administration had planned to station a radar facility in the Czech Republic and 10 ground-based interceptors in Poland. Instead, the Obama Administration plans to deploy smaller SM-3 interceptors by 2011, first aboard ships and later in Europe.

The Russian Federation had initially expressed unease about the plans of the United States to deploy a missile shield in Eastern Europe that would defend member nations of the North Atlantic Treaty Organization (NATO) against possible missile threats. The Russian Federation believed such threats to be minimal. At a NATO Summit In November 2010, the Russian Federation and NATO agreed to cooperate on a ballistic-missile shield given their new understanding that they no longer pose mutual threats. However, in May 2011 the Russian Government announced that it would not consider cuts in either strategic or tactical nuclear weapons

until it could be assured that United States plans for missile defence were not targeted at the Russian Federation.

For More Information

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/WMD/Missiles/>

“The issue of missiles in all its aspects”, Report of the Secretary-General

http://www.un.org/disarmament/WMD/Missiles/SG_Reports.shtml

The Hague Code of Conduct against Ballistic Missile Proliferation (HCOC)

<http://www.bmeia.gv.at/index.php?id=64664&L=1>

Conventional weapons have
generally received less
attention than weapons of mass
destruction; yet they are the most
common type of armament used in
conflict, globally and historically.

Conventional Arms and the Arms Trade

“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 CONVENTIONAL WEAPONS CATEGORY includes a diverse range of weapons, perhaps more easily defined by what they are not (nuclear, chemical and biological weapons—the “weapons of mass destruction”) 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 following this one.)

Conventional weapons have generally received 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

THE VALUE OF CONVENTIONAL ARMS TRANSFER AGREEMENTS (sales and grants) world-wide was \$57.5 billion in 2009, a decrease of 8.5 per cent from the 2008 level, according to the United States Congressional Research Service (2010). Conventional arms sales were down globally, it notes, at least in part due to the economic crisis that began in 2008.

Since the end of the Cold War, the United States has dominated the conventional arms sales market. In 2009, the United States led in arms transfer agreements, making agreements valued at \$22.6 billion (39.3 per cent of the global total). The Russian Federation ranked second at \$10.4 billion (18.1 per cent of the global total). The combined totals of United States, Russian Federation and France accounted for more than 70 per cent of global arms transfer agreements in 2009. Overall, for the period 2002-2009, the United States agreed to more than \$166 billion in global conventional arms sales and grants, more than double the amount of second-ranked Russian Federation, which agreed to almost \$74 billion.

While arms transfer agreements fell from 2008 to 2009, such agreements were up about 40 per cent for the 2006-2009 period (\$244.5 billion) from the 2002-2005 period (\$172.4 billion). Countries in Asia and Oceania were the largest importers of major conventional weapons in the years 2006 to 2010, according to SIPRI (2011), accounting for 43 per cent of imports, followed by Europe (21 per cent) and the Middle East (17 per cent). India was the sin-

gle largest importer of major conventional weapons from 2006 to 2010, with China ranking second.

The value of all arms transfer agreements with developing nations in 2009 was \$45.1 billion, a decrease from the \$48.8 billion total the previous year. The value of all arms deliveries to developing nations in 2009 (\$17 billion) was also lower than the previous year (nearly \$20.5 billion) and was the lowest total for the 2002-2009 period. In recent years, the United States and the Russian Federation have dominated the arms market in the developing world. Combined, the United States and the Russian Federation made 62.4 per cent of all arms transfer agreements with developing nations from 2006 to 2009. The United Kingdom, the third leading supplier during this time, made \$15.9 billion or 8.9 per cent of all such agreements with developing nations. Saudi Arabia was the leading developing-world arms purchaser from 2002 to 2009, making arms transfer agreements totalling \$39.9 billion during these years.

Problems Posed by the Unregulated Trade in Arms

“**WORLD LEADERS must accept the fact that we cannot let the free market rule the international arms trade.**”

OSCAR ARIAS, President of Costa Rica, 2006-2010, and Nobel Peace Prize laureate

MANY AREAS OF WORLD TRADE—from agricultural products to intellectual property—are subject to global rules that regulate how and when trade can take place. Yet when it comes to conventional arms sales and transfers, there are no internationally binding measures. And despite a variety of national and regional control measures on arms transfers, the reality is that there are lax controls on the arms trade in many places globally. The United Nations Secretary-General has repeatedly voiced his concern

about the absence of global norms on arms transfers, which has hindered transparency, as well as trust.

The United Nations is confronted with numerous challenges as a result of the largely unregulated flow of arms and the potential of these arms to be diverted to use by non-State actors. These weapons can also fuel corruption and impede efforts in peace-keeping, delivering food aid, working to improve public health, building safer cities, protecting refugees and fighting crime and terrorism. The potential negative consequences are numerous. The excessive build-up of weapons can lead to tension and insecurity among countries. More arms also means a higher risk of misuse and diversion, leading to violations of international law, abuses of the rights of children, civilian casualties and missed social and economic opportunities for development. For these reasons and more, a particular responsibility in the arms trade must be assumed by all countries.

Responsibility and the State

STATES REMAIN PRIMARILY RESPONSIBLE for providing security, protecting their populations and upholding the rule of law. They make decisions on arms exports, either by granting export licences to companies, traders and brokers, or by doing an internal assessment when Government-owned weapons are involved. These actions should ensure that such transfers do not exacerbate conflict or lead to violations of international humanitarian and human rights law.

Twenty years ago, countries decided to be open about their arms imports and exports by reporting them on voluntary basis to the United Nations. More recently, at the direction of the General Assembly, States agreed to work towards a “robust” arms trade treaty—a set of legally binding standards that will guide their decisions on arms transfers.

Work Towards 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 violence or facilitate repression and human rights abuses. In 2006, following a persistent campaign of a number of Nobel laureates, interested nations and civil society organizations, the United Nations General Assembly adopted a resolution (A/RES/61/89) 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 from Member States—153 in favour, 24 abstentions and 1 opposed (the United States).

As a result, in 2009, an Open-Ended Working Group held two meetings on the topic, seeking consensus on elements to be included in a legally binding treaty. Later that year, the General Assembly decided to convene a Conference on the Arms Trade Treaty in 2012, “to elaborate a legally binding instrument on the highest possible common international standards for the transfer of conventional arms”.

While much negotiation remains to define the scope of an arms trade treaty (the items, transactions and activities to be covered) and the criteria to be observed by Governments when making decisions on arms transfers, a number of States and civil society organizations have voiced their support for a comprehensive treaty that will prohibit irresponsible arms transfers. Such transfers would include those that provoke or prolong armed conflicts, aid the commission of human rights abuses and violations of international humanitarian law, destabilize 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, or to restrict how arms are acquired, held or used within a State.

At the July 2011 meeting of the Preparatory Committee of the 2012 conference, the five permanent Member States of the Security Council (China, France, Russian Federation, United Kingdom and United States), which together account for 88 per cent of the global arms trade, made a joint statement expressing their support for efforts aimed at establishing an international agreement, which could reduce the illicit trafficking and uncontrolled proliferation of conventional arms on a global scale. This is the first such collective statement in the treaty development process from the world's biggest arms exporters and provides momentum as States continue to work through important details of an arms trade treaty. The final Preparatory Committee meeting will be held in February 2012, with the Conference on the Arms Trade Treaty to follow later in 2012.

TO LEARN MORE about the progress towards an Arms Trade Treaty, visit the following websites:

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/convarms/ArmsTradeTreaty/>

Control Arms Campaign

www.controlarms.org

Transparency Measures

THE UNITED NATIONS REGISTER OF CONVENTIONAL ARMS, created in 1991, is an annual reporting mechanism through which Governments make the quantity and type of arms they transfer more transparent (A/RES/46/36 L). Member States reporting to the Register provide insights into the build-up and volume of conventional arsenals. By reporting, they are transparent about military potential; the Register does not deal with intent or actual use.

The United Nations Register covers the export and import of the following seven categories of major conventional arms (reporting on each is expected to be comprehensive):

- Category I Battle tanks
- Category II Armoured combat vehicles
- Category III Large-calibre artillery systems
- Category IV Combat aircraft
- Category V Attack helicopters
- Category VI Warships
- Category VII Missiles and missiles launchers

Additionally, countries can report on the import and export of small arms and light weapons, as well as military holdings, procurement through national production, and relevant policies and national legislation. (Reports are available on <http://www.un.org/disarmament/convarms/Register/>.)

The transparency that the Register promotes is meant to discourage excessive and destabilizing accumulations of arms and could contribute to confidence-building by reducing the risk of misperceptions and miscalculations regarding military build-ups. Such an environment could also help to encourage restraint in the transfer and production of arms.

The Register's ability to achieve its declared aim depends both on how well it covers all relevant weapons categories, and also on the extent of participation by Governments. On average, more than 100 countries have reported annually to the Register over the past 10 years, though rates of reporting appear to be in decline. These include all large arms exporting States.

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 (CCW)** 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 114 States parties (as of October 2011).

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 (there are currently five protocols).

- **PROTOCOL I ON NON-DETECTABLE FRAGMENTS** (114 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** (97 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** (114 States parties) bans the use of incendiary weapons against civilians and air delivery of such weapons against military installations located within civilian concentrations.
- **PROTOCOL IV ON BLINDING LASER WEAPONS** (100 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** (76 States parties) 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 inter-State conflicts (its original scope)

but also to internal armed conflict. Seventy-five States parties have notified the Secretary-General of their consent to be bound by this amendment.

For More Information

United Nations Office for Disarmament Affairs

<http://www.un.org/disarmament/convarms>

Desarme.org

www.desarme.org

Group for Information and Research on Peace and Security

www.grip-publications.eu

Institute for Security Studies

www.iss.co.za

International Committee of the Red Cross

www.icrc.org

Red de Seguridad y Defensa de America Latina

www.resdal.org

The majority of conflict deaths
are caused by the use of small
arms, and civilian populations bear
the brunt of armed conflict more
than ever.

Small Arms and Light Weapons

“ I lived with an AK-47 / By my side
Slept with one eye open wide
Run / Duck / Play dead / Hide
I’ve seen my people die like flies ”

EMMANUEL JAL, artist, former child soldier

MOST PRESENT-DAY CONFLICTS are fought mainly with small arms. They are broadly used in inter-State conflict and they are the weapons of choice in civil wars and for terrorism, organized crime and gang warfare. Small arms are cheap, light, and easy to handle, transport and conceal. A build-up of small arms alone does not create conflict, but their excessive accumulation and wide availability often aggravate political tension, often leading to more lethal and longer lasting violence. People’s sense of insecurity grows, which can in turn lead to a greater demand for weapons.

Trade

THE ILLICIT TRADE OF SMALL ARMS AND LIGHT WEAPONS and their ammunition wreaks havoc everywhere: mobs terrorizing a neighbourhood, rebels attacking civilians or peacekeepers, drug lords randomly killing law enforcement officials, bandits hijacking humanitarian aid convoys. On all continents uncontrolled small arms create enormous security problems.

Defining Small Arms and Light Weapons

SMALL ARMS ARE WEAPONS designed for individual use, such as revolvers, pistols, rifles and machine guns. Light weapons are designed for use by two or three persons serving as a crew. More than 1,000 companies in about 100 countries are involved in some aspect of small arms production. Conservative estimates are that 7.5 million to 8 million small arms are being produced each year.

It is difficult to assess how many small arms are in circulation globally. Authoritative sources estimate the total to be at least 875 million. Counting such weapons is difficult, as the majority are owned by civilians.

The trade in small arms is not well regulated and is the least transparent of all weapons systems. Indeed, the Small Arms Survey (2007) has noted that “more is known about the number of nuclear warheads, stocks of chemical weapons and transfers of major conventional weapons than about small arms”. Due to the lack of regulation and controls, in many countries it is too easy for small arms to slip from the legal into the illicit market—through theft, leakage, corruption or pilferage.

Brokering

THE MAJORITY OF SMALL ARMS are sold and transferred legally. However, changing patterns in the small arms trade have complicated controls. In the past, arms markets were relatively easy to survey, with far fewer supply outlets and less intermediate activity. Typically, orders were conducted and consignments were delivered by Government agents. As outlets have multiplied and commercial markets for small arms have become fragmented, the use of private intermediaries—operating in a particularly globalized environment and often from multiple locations—has increased.

Contemporary traders, agents, brokers, shippers and financiers may well combine their activities, making it difficult to clearly distinguish the bilateral small arms trade from brokering. Governments must assure that the shipments handled through these of-

ten complex networks are regulated according to the rule of law. Many countries appear not to have enacted specific laws or regulations covering arms brokering within their systems of arms export control, and it is often unclear if those activities are covered under other laws.¹

Ammunition

AMMUNITION SHOULD BE A KEY PART of any discussion on small arms control, yet almost nothing is known about global ammunition flows. More than 80 per cent of the ammunition trade seems to remain outside of reliable export data. As experts have pointed out, maintaining a regular supply of ammunition is what sustains conflict and armed criminal activity. Ammunition stockpiles are quickly depleted in situations of sustained use, such as violent conflict, and preventing their re-supply in situations conflicting with the rule of law should be a matter of prime concern.

Much of the ammunition circulating among non-State actors seems to have been diverted from Government security forces, demonstrating the urgent need to better 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 in a number of countries, causing thousands of casualties.

Stockpiles

NOT ONLY AMMUNITION STOCKPILES, but also depots of small arms themselves form an acute problem in many parts of the world. “Leaking” Government stockpiles are prominent sources of illegal small arms in circulation. Evidence shows that generally it is better—and cheaper—to destroy surplus and obsolete weapons than to store and guard them. In post-conflict settings, the imme-

¹ United Nations Institute for Disarmament Research (UNIDIR), *Developing a Mechanism to Prevent Illicit Brokering in Small Arms and Light Weapons*, 2007.

diate destruction of surplus weapons and ammunition removes possible fuel for new instability.

International Responses

IN 2001, TWO UNITED NATIONS INSTRUMENTS on small arms control were agreed upon. Under the Convention against Transnational Organized Crime, countries adopted a **Firearms Protocol**.² By ratifying this document, Governments make a commitment to adopt a series of crime-control measures and implement three sets of provisions on firearms: (1) a licensing system relating to manufacture and trade; (2) the establishment of criminal offences on illegal manufacture and trade; (3) provisions on the marking and tracing of firearms.

On the wider topic of small arms and light weapons, countries agreed that same year on a **Programme of Action** focusing on preventing the illicit trade in such weaponry.³ This politically but not legally binding instrument encourages all United Nations Member States to adopt measures at the national, regional and global levels. It contains concrete suggestions for improved national legislation and controls, and international assistance and cooperation.

In 2005, within the framework of the Programme of Action the so-called **International Tracing Instrument** was agreed upon, committing all countries 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.

² Protocol against the Illicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition (www.unodc.org/unodc/en/treaties/CTOC/index.html).

³ Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects (www.poa-iss.org).

Earlier, in 1990, countries had adopted a set of Basic Principles on the Use of Force and Firearms by Law Enforcement Officials.⁴

In addition to actions at the global level, regional organizations around the world have developed regional treaties, strategies and agreements on small arms control.

Standard-Setting

THE UNITED NATIONS STRIVES to improve its own ability in delivering effective policy, programming and advice to Member States on curbing the uncontrolled proliferation and misuse of small arms and light weapons. It is now developing a set of **international small arms control standards** (ISACS) along the lines of the standards the United Nations has already developed in the areas of mine action and disarmament, demobilization and reintegration of ex-combatants.

The purpose of ISACS is to enhance the effectiveness of policymaking and programming across the United Nations system by providing clear and comprehensive guidance to practitioners and policymakers on a wide range of small arms and light weapons control issues.

Armed Violence

MANY VICTIMS OF SMALL ARMS MISUSE fall outside of immediate conflict zones. The rate of firearms-related homicides in post-conflict societies often outnumbers battlefield deaths. And in numerous societies where armed conflict has not occurred for decades, hundreds of thousands of people die each year from endemic crime and armed violence perpetrated with illegal guns. According to the World Bank, nothing so undermines investment climates as armed insecurity. Moreover, countries affected by armed violence experience particular difficulties in achieving the Millennium Development Goals.

⁴ Available from www2.ohchr.org/english/law/firearms.htm.

In 2006, a large group of countries committed themselves to the Geneva Declaration on Armed Violence and Development, a diplomatic initiative aimed at addressing the interrelations between armed violence and development. The Declaration is now endorsed by over 100 States. Stemming from this initiative, the United Nations was asked to provide more guidance on this relationship, which it did in a ground-breaking report in 2009 (A/64/228).

Use of Small Arms in Human Rights Abuses

MORE HUMAN RIGHTS ABUSES are committed with small arms than with any other weapons. Small arms facilitate a spectrum of human rights violations, including killing and maiming, rape and other forms of sexual violence, enforced disappearance, torture and forced recruitment of children by armed groups. In situations where the use of small arms becomes the predominant way of settling individual and collective complaints and conflicts, legal and peaceful dispute resolution mechanisms are eclipsed and the rule of law cannot be upheld.

Gender

THE ISSUE OF SMALL ARMS is a highly gendered topic. Overwhelmingly, small arms are used by and against young males, but women and girls are often gravely affected by small arms violence, through armed sexual violence, intimidation and coercion, or as surviving partners and heads of households. Armed violence also impacts the ability of women to be agents for change, for instance as part of disarmament, demobilization and reintegration processes or community security initiatives.

Therefore, gendered approaches are particularly relevant for targeted policy interventions in the field of small arms regulation and control. The same holds true for prevention and response activities to address survivors and perpetrators, as well as community leaders, peace negotiators and peacekeepers. Importantly,

more research on the impact of small arms should include the key variables of age and sex. It is crucial to further understand the interplay between armed personal protection and armed power projection, and to focus on developing sustainable, alternative livelihoods for those coping with disempowerment and despair.

Children

ARMED GANGS REMAIN a persistent problem in large parts of the world, attracting boys and young men—often attempting to fulfil their roles as providers—with misleading suggestions of dominant masculinity and easy earnings. Their predatory behaviour is abetted by the availability of illicit small arms and ammunition. Moreover, all too often small arms are given to children in conflict zones as a prelude to turning them into child soldiers. Not only are children robbed of their future by the instability and insecurity surrounding them, they are also sometimes actively engaged in battle, both as combatants and by rendering services to armed groups. Despite recent concerted international efforts to address this issue, the situation remains worrisome.

Improving these situations requires a mix of policy instruments with a strong development and education component, but two measures in the field of arms regulation should always be part of the equation: securing the weapons stockpiles of armed and police forces, and ensuring that small arms in private ownership do not enter illicit circulation, including to armed groups that children may be drawn into.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/convarms/SALW/Html/SALW-PoA-ISS_intro.shtml

Gunpolicy.org

www.gunpolicy.org

Geneva Declaration on Armed Violence and Development

www.genevadeclaration.org

Institute for Security Studies/ArmsNetAfrica

www.armsnetafrica.org

International Action Network on Small Arms (IANSA)

www.iansa.org

Regional Centre on Small Arms

www.recsasec.org

Small Arms Survey

www.smallarmssurvey.org

Viva Rio

www.vivario.org.br

West Africa Action Network on Small Arms

www.waansa.org

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

ANTI-PERSONNEL MINES (or landmines) were widely used in a number of international and intrastate armed conflicts, including the two World Wars, the war in South-East Asia, the Korean War and the 1991 Gulf War.

Anti-personnel landmines, which are victim-activated, are inherently indiscriminate weapons designed to maim rather than kill. They often lie dormant for months or even years after conflicts have ended. They can burn, blind, destroy limbs and kill. Most of the victims are civilians, including children.

The original purpose of anti-personnel landmines was to protect anti-tank and anti-vehicle mines from being removed by enemy forces. Today, anti-personnel mines are generally used as a defensive weapon to protect borders, camps and other strategic locations as well as to restrict or channel the movement of enemy troops.

Over the years anti-personnel landmines became a cheap, easily accessible and widely available weapon commonly used both

by regular armed forces and non-State actors. As a result their number increased considerably and tens of millions of landmines were placed and are still buried in over 70 countries around the world, many of them unmarked, unmapped, and often left unrecorded.

Landmines directly impact many aspects of civilian life: they kill, maim and terrorize; deny access to farmland, restrict the movement of civilian population; prevent the return of refugees; and impede economic reconstruction and development. The result of their proliferation has been many thousands of mine-related deaths and injuries. By the end of the 1990s, there were an estimated 15,000 to 20,000 casualties caused by landmines and unexploded ordnance each year.

Thanks in large part to the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction and the awareness that has been raised by civil society groups that were integral to the Convention's development, entry into force and implementation, the numbers of those maimed and killed by landmines has decreased considerably and the global trade in anti-personnel landmines has nearly halted. (More information on the Convention below.)

BUT THERE IS STILL much work to be done. Seventy-six countries and territories in every region of the world are still affected to some degree by landmines. 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. Landmines are still being used in a handful of internal conflicts. Landmines disproportionately affect the world's poorest countries. Their clearance is dangerous and expensive work; at times the cost to clear a mine can be much higher than the cost to produce it.

Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction

ALSO KNOWN AS THE MINE BAN CONVENTION or the Ottawa Convention, the treaty bans the use, production, stockpiling and transfer of anti-personnel landmines. The States parties to the Convention undertake to destroy existing stockpiles of anti-personnel landmines as soon as possible, but no later than four years after the Convention becomes binding for them, and to destroy all anti-personnel mines in mined areas within 10 years. States parties also agree to work to solve existing landmine problems through mine clearance, education and survivor assistance.

The Convention was developed through what has become known as the Ottawa Process, a partnership between civil society, Governments and the United Nations. It was adopted in Oslo, Norway, on 18 September 1997, and opened for signature in Ottawa, Canada, on 3 December 1997, with 122 Governments signing the Convention at this time. It entered into force in March 1999.

The Mine Ban Convention entered into force more quickly than any other treaty of its kind and as of October 2011 has 157 States parties. A number of key States remain outside the Convention, including China, Egypt, India, Israel, Pakistan, the Russian Federation and the United States. Each year since the Convention entered into force, there has been an annual meeting of States parties to promote the Convention's implementation and universalization, and to review progress.

The Convention requires that a Review Conference be convened by the Secretary-General of the United Nations five years after its entry into force. Its purpose is to review the operation and status of the Convention. The most recent Review Conference was held in Cartagena, Colombia, in 2009 where 100 States parties reaffirmed their commitment to end the suffering and casualties

caused by anti-personnel landmines and to achieve a world free of such weapons.

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

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 (CCW)

THE AMENDED PROTOCOL II¹ to the CCW (or the Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices as amended on 3 May 1996), which entered into force in 1998, contains prohibitions and restrictions on the use of anti-personnel and anti-vehicle landmines but does not provide for their total ban. As part of international humanitarian law, Amended Protocol II prohibits in all circumstances using of mines, booby-traps and other explosive devices if they are of a nature to cause superfluous injury or unnecessary suffering; using these weapons if they are designed to explode when detected by mine-detection equipment; directing these weapons against civilians or civilian objects; or using these weapons indiscriminately. States parties to the Protocol undertake to clear, remove and destroy all mines, booby-traps and other devices following the end of active hostilities; to take all feasible precautions to protect civilians from their effects; to give effective advance warning of any emplacement of these weapons that may affect the civilian population; to maintain records on the locations of such weapons; and to take measures to protect missions of the United Nations, the International Committee of the Red Cross and other humanitarian organizations against the effects of these weapons. Ninety-seven States are party to Amended Protocol II as of July 2011.

¹ An amended protocol to the Convention is added to strengthen provisions not included in the original text.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/convarms/Landmines/html/Landmines_index.shtml

Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction

<http://www.apminebanconvention.org/>

Electronic Mine Information Network (E-Mine), United Nations Mine Action Service

www.mineaction.org

Handicap International

www.handicap-international.org

International Campaign to Ban Landmines

www.icbl.org

People against Landmines

www.landmine.org/e/index.htm

Cluster bombs have killed
and injured thousands of
civilians during the last 40 years and
continue to do so today. They cause
widespread harm on impact and
yet remain dangerous, killing and
injuring civilians long after a conflict
has ended.

CLUSTER MUNITIONS COALITION

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, Coordinator, Cluster Munition Coalition

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 over half a century ago, more than two dozen countries have been affected by the use of cluster munitions and at least 15 countries have used them. Viet Nam, Cambodia and the Lao People’s Democratic Republic, which were bombed by the United States between 1964 and 1973, together have the tragic distinction of being the world’s most heavily cluster-bombed region. Other areas affected by cluster munitions include Chad, Eritrea, Sierra Leone and the Sudan in Africa, the former Yugoslav Republics, as well as Albania, Chechnya and Afghanistan. More recently, the United States and its allies used cluster bombs in Iraq, first in 1991 and again in 2003; cluster munitions were used both by Israel and Hizbullah in 2006, as well as by Georgia and the Russian Federation during fighting over the separatist region of South Ossetia in August 2008. The Libyan Government is reported to have used cluster munitions against rebel forces in that country in 2011.

There is no reliable data on the exact number of people maimed or killed by cluster munitions globally. The 2010 Cluster Munition Monitor refers to 16,816 confirmed cluster munitions

casualties worldwide by the end of 2009, but estimates that the number may be much higher, between 58,000 and 85,000. Nearly all confirmed casualties, 98 per cent, are civilian. Young males are the most frequent victims.

Thirty-four countries are known to have produced 210 different kinds of cluster munitions and some 85 countries have stockpiled billions of submunitions, according to the Cluster Munition Coalition.

Cluster munitions are particularly dangerous to civilians for a number of reasons. They are imprecise; a single strike can spread submunitions across a wide area. They are unreliable and indiscriminate; large numbers of unexploded submunitions often remain on the ground, liable to explode even years after active hostilities have ended. They are deadly; cluster submunitions are usually designed to penetrate armour and thus contain even more explosive power and metal fragmentation than landmines.

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, the collaboration among Governments, the United Nations, the International Committee of the Red Cross and other civil society groups to address the problem of cluster munitions. The Convention was negotiated and adopted at the Dublin Diplomatic Conference on 30 May 2008, and was opened for signature in December 2008, when it was signed by 108 States. It entered into force on 1 August 2010, six months after ratification and deposit by the thirtieth State party. As of July 2011, 108 States had signed the Convention and 59 had ratified it. (To check the status of ratifications, go to <http://treaties.un.org>.)

The States parties to the Convention undertake, among other things, to destroy all existing cluster munitions stockpiles as soon as possible, but no later than eight years after the entry into force

of the Convention for them; to clear and destroy cluster munition remnants within 10 years; and to provide assistance to countries affected by cluster munitions.

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 that remain, perhaps the most serious being the fact that several major military powers which stockpile the overwhelming majority of cluster munitions, in particular, China, India, Israel, Pakistan, the Russian Federation, and the United States, did not participate in the development of the Convention and have not signed it. There have been annual conferences of States parties to review the implementation of the Convention. The most recent took place in Beirut, Lebanon, in September 2011.

To address this challenge, negotiations on cluster munitions have also been under way in the context of the Convention on Certain Conventional Weapons (CCW), with discussions in Geneva from 2008 to 2011 focusing on developing a new protocol to the Convention that would prohibit and/or restrict the use and transfer of cluster munitions. The Group of Governmental Experts, mandated by the CCW States parties to continue negotiations in 2011, is seeking to strike a balance between humanitarian concerns regarding cluster munitions and military considerations. The group is expected to report on its work to the CCW Fourth Review Conference in November 2011.

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

PROTOCOL V ON EXPLOSIVE REMNANTS OF WAR (ERW) annexed to the CCW provides for generic measures aimed at minimizing the effects of abandoned or unexploded ordnance. The Protocol establishes obligations for ERW clearance, exchange of informa-

tion, risk education, victim assistance, cooperation and support. The Protocol, however, does not contain weapon-specific provisions, in particular with regards to cluster munitions.

For More Information

United Nations Office for Disarmament Affairs, Geneva

www.unog.ch/ccm

Cluster Munition Coalition

www.stopclustermunitions.org

Children and Armed Conflict

“LET US ALL STAND TOGETHER and make a world where guns have been replaced by good grades, uniforms by united families, fighting by friendship and a childhood free of checkpoints and chaos.”

RADHIKA COOMARASWAMY, Special Representative of the Secretary-General for Children and Armed Conflict

OVER THE LAST SEVERAL DECADES, the face of war has changed dramatically as civilians are increasingly targeted. Children are the primary victims of armed conflict and their suffering wears many faces. More than two million children have been killed in war zones over the past two decades, according to www.securitycouncilreport.org. Another six million have been maimed or permanently disabled. Countless more children have been made orphans, abducted, deprived of education and healthcare, and left with deep emotional scars.

Children are uniquely vulnerable to military recruitment. As a result, more than a quarter of a million youths have been exploited as child soldiers in at least 30 countries in parts of Africa, Asia, Latin America and the Middle East over the past 20 years.

In April 2010, 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 22 countries where children are forced to take part in hostilities. The ninth report of the Secretary-General on Children and Armed Conflict (2010) chronicled 51 parties to conflict that continue to recruit children.

Children caught in armed conflict are often brutalized and isolated. The Special Representative 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”.

Increasingly, girls are being recruited into fighting forces, where, like boys, they often serve multiple roles as cooks, porters, fighters, mine sweepers, spies or suicide bombers. Both girls and boys are often sexually violated and girls are sometimes forced to serve as “wives”. When fighting is over, these girls may be stigmatized and overlooked in programmes designed to reintegrate former combatants back into their communities.

Children are often abducted from home and schools and forced into association with armed groups, but sometimes they appear to join willingly. Poverty, illiteracy and discrimination, as well as a lack of formal education and livelihood opportunities, are some of the drivers of “voluntary” recruitment. Protection, survival, desire for revenge or a sense of belonging due to loss of home and family members also sometimes compel children to join armed groups. For some, the lack of legitimate avenues for political dissent and participation, or ideologies of nationalism and ethnic identity become powerful motivating factors.

Children are considered by some as an economically efficient alternative to adult combatants. They may be easily indoctrinated, manipulated and influenced by heroic notions of masculinity and power. The length of a conflict, the proximity of refugee camps or internally displaced persons’ settlements to conflict zones, the failed reintegration of children, and the impunity of those who recruit and use children are additional contributing factors. There is also compelling evidence of the direct correlation between the increased use of children in conflict and the ready availability of small arms, which are relatively easy even for the youngest children to manipulate and master.

The majority of the world's child soldiers are involved in non-State armed groups, including paramilitaries, militias and self-defence units operating in conflict zones. But children are also used in armed conflict by Government forces notably in Afghanistan, Chad, the Democratic Republic of the Congo, Myanmar, Somalia and the Sudan.

Protecting Children in War

WHILE MUCH WORK REMAINS, there have been significant developments in protecting children caught in conflict situations. More than 140 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, with parental consent, into the armed forces above the age of 15. To strengthen the moral consensus that children should not be recruited, the Office of the Special Representative of the Secretary-General for Children and Armed Conflict has launched the Zero under 18 campaign aimed at universal ratification of the Optional Protocol by 2012 (<http://zerounder18.org>).

Over the past decade, the issue of children and armed conflict has been placed on the Security Council's agenda. In 2005, following the adoption of Security Council resolution 1612 (2005), the Security Council Working Group on Children and Armed Conflict was created and an unprecedented monitoring and reporting mechanism on the situation of children in armed conflict was established. Its purpose is to gather timely and reliable information on the six "grave violations" committed against children, which are the following: recruitment and use of children as soldiers; killing and maiming of children; rape and other sexual violence committed against children; attacks on schools or hospitals; abduction of children; and denial of humanitarian access for children.

On the basis of this information, the Security Council can call for dialogue with parties to the conflict, leading to action plans for the release and reintegration of child soldiers. The Council can also take direct action against perpetrators such as travel bans, freezing of assets and banning of export or supply of small arms and light weapons.

Progress has also been made by the signing of action plans with parties to conflict that have been recruiting children. Most recently, this led to the release of children associated with the Moro Islamic Liberation Front (Philippines), the Sudan People's Liberation Army and the Unified Communist Party of Nepal-Maoist.

Important precedents are being set in the fight to end the impunity of perpetrators. Two prominent examples are the arrests by the International Criminal Court of Germain Katanga, former leader of the Patriotic Resistance Force in Ituri, and Thomas Lubanga Dyilo, founder and leader of the Union of Congolese Patriots. Both were active in the Democratic Republic of the Congo. They have been indicted on several charges, including the conscription and enlistment of children under the age of 15 and the use of children for active participation in hostilities. Increasingly, special regional courts and truth commissions are addressing the issue of child soldiers.

For More Information

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

www.un.org/children/conflict

Amnesty International

www.amnesty.org/children

Zero under 18 Campaign

<http://zerounder18.org/>

Coalition to Stop the Use of Child Soldiers

www.child-soldiers.org

Human Rights Watch

www.hrw.org

United Nations Cyberschoolbus

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



Women, Peace and Security

“SUSTAINABLE PEACE is possible only with women’s full participation—their perspectives, their leadership, their daily, equal presence wherever we seek to make and keep the peace.”

BAN KI-MOON, Secretary-General of the United Nations

WOMEN PLAY MANY ROLES in peace, security, conflict and disarmament. 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 breadwinners, they sometimes engage in the illicit trade of arms. As soldiers, they serve many functions, from combatants to cooks. As parliamentarians, they enact laws on security and arms-control policy. As civil society activists, they lobby Governments to increase security and build peace.

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, including questions about their own security, conflict prevention, arms control policy, 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, which can, in the long run, facilitate and legitimize violations of women’s rights and violence against women and can undermine sustainable development, peace and security. However, 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 peacebuilding efforts are more likely to be successful and long-lasting.

Actions by the United Nations Security Council

SECURITY COUNCIL RESOLUTION 1325 (2000), adopted unanimously on 31 October 2000, was a milestone resolution for women and disarmament as it marked the first time the 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 of 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 (2000), broadly speaking, is about four issues: **prevention** of violence and abuse of rights, **protection** in conflict, **participation** in peace and security decisions, and women's needs in **relief and recovery** in conflict and post-conflict situations. Of these four, participation is perhaps the most important—recognizing 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 in conflict prevention and peace processes, early recovery after conflict, governance and peace operations. It encourages the United Nations Secretary-General to appoint more women as special representatives and envoys to conflict situations, and urges him 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 emphasizes the responsibility of States to prosecute those responsible for war crimes, including those relating to sexual and other violence against wom-

en 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, demobilization and reintegration (DDR) of ex-combatants into society.

SECURITY COUNCIL RESOLUTION 1889 (2009), adopted on 5 October 2009, addresses obstacles to women's participation in all stages of peace processes and the need to improve women's engagement in political and economic decision-making in peacebuilding processes, strengthening and complementing the "participation" pillar of resolution 1325 (2000). It also calls for the United Nations Secretary-General to submit to the Security Council a set of indicators to track implementation of resolution 1325 (2000).

In response to this request, the Secretary-General presented a comprehensive set of indicators to the Council on 6 April 2010 (S/2010/173). The United Nations system is now collecting data related to these indicators.

The latest report of the Secretary-General to the Security Council on the implementation of the Council's resolution 1325 (2000) (S/2011/589 dated 29 September 2011) provides an overview of progress made in responding to priority concerns,¹ with a focus on actions taken by various actors since October 2010. One of the most significant institutional developments with regard to women and peace and security has been the creation of UN-Women. Part of its role is to leverage the entire United Nations system to ensure accelerated implementation of all women and peace and security resolutions.

¹ The priority concerns are: (a) the need to strengthen women's participation and leadership in conflict prevention, resolution and long-term peacebuilding; (b) the need for a more effective justice and security environment for women and girls during and after conflict; and (c) the need to increase resources for all aspects of the women and peace and security agenda.

SECURITY COUNCIL RESOLUTIONS 1820 (2009), 1888 (2009) and 1960 (2010), which follow up on resolution 1325 (2000), address sexual violence. Resolution 1820 (2009) calls for an end to widespread conflict-related sexual violence and for accountability to end impunity. Resolution 1888 (2009) focuses on strengthening leadership, expertise and other institutional capacities within the United Nations and in Member States to help put an end to conflict-related sexual violence. In response to resolution 1888 (2009), the Secretary-General appointed a Special Representative on Sexual Violence in Conflict. Resolution 1960 (2010) mandates the Secretary-General to list those parties credibly suspected of committing or being responsible for patterns of sexual violence in situations on the Security Council's agenda. Resolution 1960 (2010) also calls for the establishment of monitoring, analysis and reporting arrangements specific to conflict-related sexual violence.

Actions by the United Nations General Assembly

RESOLUTION 65/69, adopted by the United Nations General Assembly on 8 December 2010, is another milestone resolution for women and disarmament. Initiated and introduced by the Prime Minister of Trinidad and Tobago, Kamla Persad-Bissessar, at the United Nations. The resolution recognizes the “valuable contribution of women to practical disarmament measures carried out at the local, national, regional and subregional levels in the prevention and reduction of armed violence and armed conflict, and in promoting disarmament, non-proliferation and arms control”. The resolution “encourages Member States, regional and subregional organizations, the United Nations and specialized agencies to promote the equitable representation of women in all decision-making processes with regard to matters related to disarmament, non-proliferation and arms control”, and “invites all States to support and strengthen the effective participation of women in organizations in the field of disarmament”. It is the first time that a resolu-

tion of the General Assembly's First Committee has addressed the role and participation of women in disarmament.

Actions by the United Nations System and the International Community

IN THE YEARS since the adoption of Security Council resolutions 1325 (2000) and 1820 (2009), the United Nations has undertaken concerted efforts to implement these resolutions. Progress has been made, for instance, in the number of women in United Nations leadership positions in conflict-affected countries, as heads of peacekeeping missions and special political missions. In 2009, only one recent peacekeeping mission, Liberia, had been headed by a woman. As of 2011, 21 per cent of United Nations peacekeeping and special political missions are headed by women (five out of 17 peacekeeping missions and two out of 11 special political missions). In addition, four women serve as deputy heads of such missions. Women currently account for approximately 10 per cent of senior positions and 30 per cent of civilian personnel in peacekeeping operations. In police missions, 9 per cent of all personnel are women and, in military missions, women make up approximately 3 per cent of peacekeepers.

United Nations Open Days on Women, Peace and Security

TEN YEARS AFTER THE PASSAGE OF RESOLUTION 1325 (2000), from June to August 2010, the United Nations organized Open Days on Women, Peace and Security in conflict-affected areas. These extraordinary meetings gathered women's views on improving the implementation of Security Council resolution 1325 (2000) through dialogue between women's peacebuilding organizations and women community leaders, and senior United Nations representatives. The priorities identified included: increased political empowerment for women and engagement at all levels of decision-making; a more effective and credible justice and security environment for women during and after conflict; and allocation

of greater and more sustainable financial resources to support women in recovery processes.

UN-Women

IN JULY 2010, the United Nations General Assembly created UN-Women, the United Nations Entity for Gender Equality and the Empowerment of Women. In doing so, United Nations Member States took a historic step in accelerating the Organization's goals on gender equality and the empowerment of women. UN-Women's priority areas include participation and leadership, and peace and security. The creation of UN-Women will enable the United Nations to better address all issues of gender equality and the empowerment of women.

Civil Society and Women's Organizations

CIVIL SOCIETY and women's organizations have been invaluable in bringing attention to the importance of women's disarmament decision-making; in training women to be active participants in arms control, peace and security; and in directly campaigning for disarmament and non-proliferation. In many countries, because of traditional barriers to political participation, women's leadership has expressed itself most strongly through civil society organizations. Thus, involving these organizations is often the only way to ensure that women and their perspectives and priorities in disarmament are included in decision-making, policy formulation and programming.

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

TO READ General Assembly resolution A/RES/65/69, go to <http://www.un.org/en/ga/65/resolutions.shtml>.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/HomePage/gender/gender

Arias Foundation for Peace and Human Progress

www.arias.or.cr

Centro de Educacion e Investigacion para la Paz

www.ceipaz.org

IANSA Women's Network

www.iansa-women.org/

NGO Working Group on Women, Peace and Security

www.womenpeacesecurity.org

UN-Women

www.unwomen.org and www.womenwarpeace.org/

Weeramantry Centre for Peace Education and Research

www.wicper.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. The 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. The 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. The General Assembly adopts a 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, the Biological Weapons Convention, the Treaty on the Non-Proliferation of Nuclear Weapons, the 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 2011, 193 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 Committee), Second Committee (Economic and Financial Committee), Third Committee (Social, Humanitarian and Cultural Committee), Fourth Committee (Special Political and Decolonization Committee), Fifth Committee (Administrative and Budgetary Committee), and Sixth (Legal Committee).

TO LEARN MORE, go to the General Assembly website (www.un.org/en/ga/) or visit the following: Arms Control Association (www.armscontrol.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://disarm.igc.org>). Find the voting chart in annual winter issues of the *Disarmament Times*.

First Committee of the United Nations General Assembly

Disarmament and International Security

THE FIRST COMMITTEE of the General Assembly deals with issues of disarmament and international security. (See the General Assembly section above.)

TO LEARN MORE, go to the First Committee's website (www.un.org/en/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, Russian Federation, United Kingdom and 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 9 affirmative votes out of 15 votes. Decisions on substantive matters require 9 affirmative votes out of 15 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).

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 early 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).

Conference on Disarmament

THE CONFERENCE ON DISARMAMENT (CD) is the sole multilateral body for negotiating disarmament treaties. It has 65 permanent members which meet in Geneva in three sessions each year (gen-

erally, 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 Weapons Convention, the Chemical Weapons Convention and the Comprehensive Nuclear-Test-Ban Treaty (which has not yet entered into force).

TO LEARN MORE, go to the website of the United Nations Office at Geneva (www.unog.ch, click on “Disarmament”).

United Nations Office for Disarmament Affairs (UNODA)

ORIGINALLY ESTABLISHED in 1982 (although variously named as a “department”, “office” and “centre”), 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 organizational 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)

United Nations Regional Centres for Peace and Disarmament

THE THREE REGIONAL CENTRES located in Lomé (Togo), Kathmandu (Nepal) and Lima (Peru) provide practical assistance to States in substantive and technical areas including firearms legislation, support in stockpile management and weapons destruction, and registers on conventional arms. The Centres organize and support

conferences, seminars and workshops to promote regional and subregional arms control and disarmament efforts.

TO LEARN MORE, go to the Centres' websites:

United Nations Centre for Peace and Disarmament in Africa (www.unrec.org)

United Nations Centre for Peace and Disarmament in Asia and the Pacific (www.unrcpd.org.np)

United Nations Centre for Peace, Disarmament and Development in Latin America and the Caribbean (www.unlirec.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 organization 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 Organization (CTBTO)

THE PREPARATORY COMMISSION FOR THE CTBTO, established in 1996, is an interim organization 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 ban on nuclear testing (which includes building 321 monitoring stations and 16 radionuclide laboratories throughout the world). The Preparatory Commission is an independent international organization related to the United Nations. It is financed by CTBT States signatories.

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

Stay Informed and Get Involved

“BE BOLD. Think big—for it yields big results. And that is why, again, we need people like you. People who understand that the world is over-armed and that peace is underfunded. People who understand that the time for change is now.”

BAN KI-MOON, Secretary-General of the United Nations

THERE ARE MANY HUNDREDS of civil society organizations 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 organizations 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 organizations and campaigns that make a difference. It's important now more than ever, so join the cause.

Action on Armed Violence

<http://aoav.org.uk/>

The website offers information on armed violence and development, advocacy tool kit and reports on armed violence. Join the call on Governments to address armed violence.

Arab Institute for Security Studies

www.acsis.org

The Institute addresses conditions necessary to promote peace and stability regionally and internationally in accordance with the principles of the United Nations. The Institute seeks to provide accurate and efficient diagnosis of the security situation and provide recommendations on some of the pressing issues.

Arms Control Association

www.armscontrol.org

The comprehensive website provides 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

The website offers information on NATO, arms control treaties, the Getting to Zero Campaign (nuclear weapons) and more. Subscribe to email updates on the Getting to Zero campaign at <http://www.basicint.org/updates/subscribe>.

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, Afghanistan, the Islamic Republic of Iran, Iraq and the Democratic People's Republic of Korea. Comprehensive policy analysis is also available.

Center for Defense Information

www.cdi.org

Research and policy information on United States defence spending and policy, the arms trade, children and armed conflict, missile defence, nuclear proliferation, small arms, space security and terrorism is available on the website.

Cluster Munition Coalition

www.stopclustermunitions.org

Read about the international campaign to ban cluster munitions, working in support of the Cluster Munitions Convention. Join the campaign and learn about global and local actions in support of the Cluster Munitions Convention.

Coalition to Stop the Use of Child Soldiers

www.child-soldiers.org

The Coalition works 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

The campaign works to achieve a global, legally binding arms trade treaty. Join the campaign, sign up for their newsletter, follow them on Facebook and Twitter, read their blog and more.

Federation of American Scientists

www.fas.org

The website contains in-depth information on biological, chemical and nuclear weapons, the arms trade, energy, the environment and emerging technology.

Global Security Newswire

<http://gsn.nti.org/gsn/>

Read daily news on nuclear, biological and chemical weapons, terrorism, missiles and missile defence, and related issues. Subscribe to the daily email. Searchable news archives are available.

Gunpolicy.org

www.gunpolicy.org

The website contains comprehensive information about global gun policy, as well as Armed violence and gun laws listed country by country.

Henry L. Stimson Center

www.stimson.org

The website offers information on space security, environmental security and regional security in Asia and more.

International Action Network on Small Arms

www.iansa.org

Read about this global campaign working to end the illicit trade in small arms and supporting the development of an arms trade

treaty. Information on women, children, development, and much more related to small arms is available.

International Campaign to Ban Landmines

www.icbl.org

This global campaign was instrumental in the development and passage of the Mine Ban Convention. It also supports implementation of the Cluster Munitions Convention. Join a national group or become a volunteer. See 10 things you can do for a world free of landmines and cluster bombs.

International Panel on Fissile Materials

www.fissilematerials.org

In-depth information on fissile materials and nuclear weapons is found in this website. Read about the work for the passage of a fissile materials cut-off treaty (FMCT), 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.mii.edu>

This comprehensive website contains information on weapons of mass destruction and non-proliferation.

NGO Committee on Disarmament, Peace and Security

<http://disarm.igc.org>

Visit this website for comprehensive research, with background information and website links to a variety of disarmament related issues and treaties. Subscribe to the *Disarmament Times*, a 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 are available in this website. 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

Visit this very comprehensive site provides 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, MAN-PADS, country surveys and more.

Stockholm International Peace Research Institute

www.sipri.org

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

Union of Concerned Scientists

www.ucsusa.org

Resources on global warming, clean vehicles and energy, nuclear power and weapons are available in this site. Sign up for action alerts, news and resources.

United Nations Cyberschoolbus

<http://cyberschoolbus.un.org>

Find 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 are available. Subscribe to the *Disarmament Forum* at www.unidir.org/html/en/disarmament_forum.php.

United Nations Office for Disarmament Affairs

www.un.org/disarmament

The website contains 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.

The Verification Research, Training and Information Centre (VERTIC)

www.vertic.org

VERTIC supports the development, implementation and effectiveness of international agreements and related regional and national initiatives. Focus on agreements and initiatives in the areas of arms control, disarmament and the environment, with particular attention to issues of monitoring, review, implementation and verification.

Weapons of Mass Destruction Commission

www.wmdcommission.org

Comprehensive information about nuclear, biological and chemical weapons is available in this website. Read *Weapons of Terror* (2006).

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

APPENDIX

Arms Control and
Disarmament Treaties
and Related Instruments

	<i>Dates of entry into force</i>
Antarctic Treaty	1961
African Nuclear-Weapons-Free Zone Treaty (Pelindaba Treaty)	2009
Agreed Framework (United States and Demo- cratic People’s Republic of Korea)	1994
Anti-Ballistic Missile Treaty (United States and former Soviet Union)	1972 <small>(United States withdrew in 2001)</small>
Biological Weapons Convention	1975
Treaty on a Central Asian Nuclear-Weapon- Free Zone	2009
Central African Convention for the Control of Small Arms and Light Weapons, Their Am- munition and All Parts and Components That Can Be Used for Their Manufacture, Repair and Assembly (Kinshasa Convention)	Not yet entered into force
Chemical Weapons Convention	1997
Comprehensive Nuclear-Test-Ban Treaty	Not yet entered into force
Convention on Cluster Munitions	2010
Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques	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 and former Soviet Union)	1988
International Code of Conduct against Ballistic Missile Proliferation (The Hague Code of Conduct)	2002
Mine Ban Convention	1999
Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)	1969
Missile Technology Control Regime	1993
Agreement Governing the Activities of States on the Moon and Other Celestial Bodies	1984
Treaty on the Non-Proliferation of Nuclear Weapons	1970
Treaty on Open Skies	2002
Outer Space Treaty	1967
Partial Test Ban Treaty	1963
Peaceful Nuclear Explosions Treaty (United States and former Soviet Union)	1976
Sea-bed Arms Control Treaty	1972
South Pacific Nuclear Free Zone Treaty (Rarotonga Treaty)	1986
Southeast Asia Nuclear-Weapon-Free Zone Treaty (Bangkok Treaty)	1997
Strategic Arms Limitation Treaty (SALT I) (United States and former Soviet Union)	1969-72
Strategic Arms Limitation Treaty (SALT II) (United States and former Soviet Union)	Did not enter into force
Strategic Offensive Reductions Treaty (SORT) (United States and former Soviet Union)	2002

Strategic Arms Reduction Treaty (START I) (United States and former Soviet Union)	1994 (expired December 2009)
Strategic Arms Reduction Treaty (START II) (United States and former Soviet Union)	Did not enter into force
Threshold Test Ban Treaty (United States and former Soviet Union)	1990
Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) (Russian Federation and United States)	2011

NOTE: All information is current as of July, 2011. Treaties are multilateral unless indicated. Further information and the full texts of the treaties are available at <http://treaties.un.org>, <http://www.un.org/disarmament/HomePage/treaty/treaties.shtml> and www.armscontrol.org.