

Disarmament **A Basic Guide**

Fourth Edition

by **Melissa Gillis**



Office for Disarmament Affairs
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United Nations

Note

THE UNITED NATIONS OFFICE FOR DISARMAMENT AFFAIRS publishes the Basic Guide pursuant to the purposes of the United Nations Disarmament Information Programme. The mandate of the Programme is to inform, educate and generate public understanding of the importance of multilateral action, as well as support for it, in the field of arms limitation and disarmament. The Guide is intended for the general reader, but may also be useful for the disarmament educator or trainer.

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Preface

CONCEIVED AS A COMPREHENSIVE INTRODUCTION to a field that has been central to the work of the United Nations since its founding, *Disarmament: A Basic Guide* aims to provide a useful overview of the nuanced challenges of building a more peaceful world in the twenty-first century.

The Guide was written with the general reader in mind, and it strives to be accessible without downplaying the complexity of the issues it explores.

The first edition of the Guide was authored by Bhaskar Menon and published in 2001 through collaboration with the Non-Governmental Organization Committee on Disarmament, Peace and Security. The second edition was authored and edited by Melissa Gillis, who was then editor of the Committee's *Disarmament Times*. Ms. Gillis went on to update all subsequent editions.

The Guide is now in its fourth edition, and returning readers will find not only updated figures, tables and treaty statuses, but also new analysis of the key developments that have occurred since 2012, when the third edition was published. This latest volume incorporates discussion of two recently agreed legal instruments—the Arms Trade Treaty and the Treaty on the Prohibition of Nuclear Weapons—and a new chapter considers emerging threats from cyberweaponry, unmanned combat aerial vehicles and lethal autonomous weapons systems.

Other updates explore the implications of continued nuclear arms modernization, recent cases of chemical weapons use, demographic impacts of the illicit trade in small arms, and new directions in the evolution of terrorism and asymmetric warfare.

This new edition of the Guide also considers a number of current trends that have contributed significantly to recent multilateral disarmament efforts. An unprecedented level of civil society engagement during the negotiation of the Arms Trade Treaty and the Treaty on the Prohibition of Nuclear Weapons benefited the discussions with additional energy and technical expertise. Meanwhile, the disarmament community has placed increasing emphasis on the humanitarian implications of any use of nuclear weapons, deepening the existing international taboo against them. Recent years have also seen a growing international focus on the effects of conflict on children and non-combatants, as well as the vital role that women can play in peacemaking and post-conflict efforts.

One final word about references in this fourth edition—the information presented in this publication is based on extensive research and authoritative source material. However, to improve the general reader’s experience, citations contained within the text have been kept to a bare minimum. All sources used are listed in appendix 2. Readers who have specific questions about information presented and associated reference sources may send their queries to unoda-web@un.org.

The publication is available for free online at www.un.org/disarmament/publications/basic-guide.



In 2016, the world's
Governments spent
US\$ 1.69 trillion on military
expenditures, amounting to
US\$ 227 for each person
alive today.

Stockholm International Peace
Research Institute

01

Why Is Disarmament Important?

“We travel together, passengers on a little spaceship, dependent on its vulnerable reserves of air and soil; all committed, for our safety, to its security and peace; preserved from annihilation only by the care, the work and the love we give our fragile craft.”

ADLAI STEVENSON II

American Ambassador to the United Nations (1961-1965)

THE NATURE OF CONFLICT AND THE WEAPONRY used to fight it have changed dramatically in the past 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. Most 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, intra-State 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 trillion annually by the mid-1980s to build arsenals capable of inflicting massive destruction anywhere on the globe.

Then the fall of the Berlin Wall in 1989 brought a lessening of tensions between the two superpowers, and military budgets—and the number of conflicts—fell. Unfortunately, the shrinking of military budgets was short-lived, coming to an end in the late 1990s. Between 2001 and 2009, military spending increased by an average of 5.1 per cent annually. These expenditures generally fell or remained steady from 2010 to 2016 due to the global economic crisis, but worldwide military spending rose slightly in 2016 as a result of increases by States in Asia, Europe and North America. This recent global uptick underscores the possibility that military expenditures will resume their previous upward trend, particularly as a number of States have discussed new multi-year spending increases. (Stockholm International Peace Research Institute (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.

The past decade has seen an uptick in the number of armed conflicts, people dying in conflict and refugee flows. Global forced displacement hit a record high in 2015 with more than 65 million people displaced from their homes by conflict and persecution. Military interventions in internal conflicts of other States have also become more common in the past two decades, often making conflicts deadlier, prolonging fighting and complicating peace efforts. (Small Arms Survey; SIPRI; Office of the United Nations High Commissioner for Refugees)

The number of deaths from terrorism has increased sharply since 2000. Terrorist activity remains highly concentrated in just eight countries—Afghanistan, Egypt, Iraq, Nigeria, Pakistan, Somalia, Syria and Yemen—but in recent years it has also spread. Although the Middle East remains the region most affected, the West has experienced significant attacks but far fewer deaths overall. The global cost of terrorism is also significant: nearly \$53 billion in 2014, according to one estimate. Over the past 25 years, the overwhelming majority of terrorist attacks have occurred in countries involved in violent conflicts. (Institute for Economics and Peace)

More than 2.5 billion people globally (about one third of the world's population) live in dangerous places, in countries with a high incidence of violent death. Dangerous places account for more than 60 per cent of the world's poverty and 98 per cent of refugees come from such places.

The development of new weapons and technologies, including unmanned autonomous vehicles (also known as drones), lethal autonomous weapons (sometimes called “killer robots”) and cyberweapons, has outpaced efforts at regulation.

It is not only conflict that endangers human security. Increasingly, climate change is also a factor. It is a “threat multiplier”, compounding existing risks and increasing the likelihood of instability. People living in places affected by conflict are particularly vulnerable to climate change.

WITH THE UPWARD TREND IN CONFLICT, total world military expenditures climbed slightly from 2015 to reach \$1.686 trillion in 2016, representing 2.2 per cent of global gross domestic product or \$227 for each person in the world. (However, this is down from a peak of \$1.699 trillion in 2011.) The United States accounts for just over 36 per cent of total global military expenditures, and the top five global spenders together account for 60 per cent of military expenditures worldwide.

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 because of conflict. For many of the world's poor people, war and criminal violence are directly impeding their chances of development. The United Kingdom 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. On average, armed conflict shrinks an African nation's economy by 15 per cent (International Action Network on Small Arms, Oxfam International and Saferworld).

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

At the beginning of 2016, nuclear-weapon States possessed nearly 15,400 nuclear warheads, more than 4,100 of which were deployed and ready for use; approximately 1,800 of these were kept on high alert, ready to be launched within minutes. While the number of nuclear weapons has decreased substantially from its peak in the mid-1980s (when it reached nearly 70,000 warheads), the pace of reductions has slowed and there has been no significant decrease in the number of deployed strategic nuclear forces since 2011. The global stockpile of nuclear-bomb-making material remains enough to make tens of thousands of new weapons (about 1,370 tons of highly enriched uranium and 500 tons of separated plutonium). (SIPRI; International Panel on Fissile Materials) (See chapter 3, "Nuclear Weapons", for more information.)

Despite prohibitions against their use, chemical weapons have been used recently in Syria by the country's armed forces and by Islamic State in Iraq and the Levant (ISIL), according to the Organisation for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism. Reports have also been made about chemical weapons use in Iraq by ISIL and in Darfur by Sudanese forces.

Dozens of countries still stockpile millions of cluster munitions and, according to Human Rights Watch, cluster-munition attacks have occurred in Libya, the Sudan, Syria, Ukraine and Yemen in recent years.

Women and children continue to be targeted in armed conflict, and tens of thousands of boys and girls under the age of 18 are still used in conflicts worldwide. In recent years, thousands of women and girls have been sexually enslaved as a tactic of war and terrorism, and hundreds of thousands have been raped in conflict situations. Smaller but significant numbers of men have also been the targets of sexual violence in armed conflict.

Still, amidst this turmoil, there is also good news. There has been progress in ending the use of children in conflict; 65,000 children have been released from armed forces and armed groups in the past 10 years (United Nations Children's Fund).

Membership in the Convention on Cluster Munitions and the Mine Ban Convention, which has effectively halted the global trade in landmines, continues to grow. As of late 2016, 93 per cent of all declared stockpiles of cluster munitions globally had been destroyed (Cluster Munition Coalition). Declared stockpiles of chemical weapons in Syria and Libya were also destroyed (nevertheless, chemical-weapon attacks in Syria persist). Although the Russian Federation and the United States missed deadlines to complete destruction of their chemical-weapon stockpiles, the two countries continue to work towards this end.

IT IS A MOMENT OF CHALLENGE for many arms control regimes. 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 others. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which has proven durable and largely effective at containing proliferation, is nonetheless under stress. Notably, the Treaty's nuclear- and non-nuclear-weapon States parties continue to differ over the basic aims and goals of the NPT. Nuclear-weapon States, nearly 50 years after the NPT entered into force, have not held 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 concern. Still, there have been positive developments. After an intensive three-year process, in 2015, Iran and the so-called E3/EU+3 (China, France, Germany, the Russian Federation, the United Kingdom and the United States, as well as the European Union) reached agreement on the Joint Comprehensive Plan of Action, which led to the restoration of international confidence in the exclusively peaceful nature of Iran's nuclear programme and the lifting of economic sanctions and other restrictions.

Beginning in 2013, a group of United Nations Member States and non-governmental organizations launched a humanitarian initiative to reframe the nuclear disarmament debate by emphasizing the devastating effects of a nuclear detonation. The initiative culminated in the adoption of the Treaty on the Prohibition of Nuclear Weapons on 7 July 2017, the first multilateral, legally binding instrument for nuclear disarmament to have been negotiated in 20 years. The spokesperson for United Nations Secretary-General António Guterres asserted that the Treaty "represents an important step and contribution towards the common aspirations of a world without nuclear weapons".

There have also been steps forward in conventional arms control. The Arms Trade Treaty, the first-ever global treaty to establish standards for regulating the international trade in conventional arms, went into effect in 2014.

Global cooperation has also resulted in the Paris Agreement, which entered into force in 2016. The Agreement

is an ambitious global effort to combat climate change and strengthen the ability of countries to deal with its impacts. Climate change and security are inextricably linked in that climate change is thought to contribute to the likelihood of conflict. Those experiencing conflict are also particularly vulnerable to its effects. Despite a recent decision by the United States to pull back from the Agreement, it remains a formidable tool for encouraging norms and spurring action worldwide.

United Nations Member States have also agreed to the 2030 Agenda for Sustainable Development, a set of 17 global goals to combat global poverty and promote sustainable development. To that end, Sustainable Development Goal 16 aims to promote peaceful and inclusive societies, including by significantly reducing illicit arms flows (Target 16.4).

New Understandings of Peace and Security

“The world is over-armed and peace is underfunded.”

BAN KI-MOON

United Nations Secretary-General (2007-2016)

AS THE NATURE OF CONFLICT HAS CHANGED, so has the understanding of peace and security. For many years, peace meant the absence of violence and the renewal of governance. Ceasefires and demobilization were mainstays of peace processes. Today, however, it is widely recognized that peace is much more than the absence of war. Sustainable peace is possible only as part of an inclusive process that pays attention to human rights, justice, reconciliation and broad participation, including the inclusion of women, youth, indigenous peoples and others.

Today, security is also seen in “a far more expansive way that is not only limited to containing physical violence” (Coomaraswamy). The Global Study on the implementation of United Nations Security Council resolution [1325 \(2000\)](#) explains:

Security also has political, economic and social dimensions. It is both public and private. It means absence of fear but also absence of want. It also implies active agency, to be allowed to participate in the decisions that are made on your behalf. While security in the old paradigm was linked to ensuring the survival of individuals, in recent times it is recognized as a broader term aimed at securing the well-being of individuals and their communities.

NEW SECURITY CONCERNS arise from demographic trends, chronic poverty, economic inequality, environmental degradation, pandemic diseases, organized crime, repressive governance and other developments.

Yet, national policies and budgets have been slow to reflect the shifting understanding. As former United Nations Secretary-General Ban Ki-moon has noted, “massive military spending and new investments in modernizing nuclear weapons have left the world over-armed—and peace underfunded”.

In 2016, global military spending reached nearly \$1.7 trillion, including billions to modernize nuclear arsenals. By contrast, today’s United Nations peacekeeping budget is less than half of one per cent of global military spending, meaning too often that peace operations face a gap between their goals and the means to achieve them.

THE ECONOMIC BURDEN OF MILITARY SPENDING is especially high for the most vulnerable within our societies. When Governments choose armaments over much-needed social programmes—such as access to clean water and sanitation, and high-quality education and healthcare—the human cost is often high. One result can be that individuals and communities, and ultimately States, are less secure.

At the most basic level, arms control and disarmament are about accounting for, controlling and eliminating weapons. But more broadly, efforts at arms control and disarmament are also about rethinking 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”.

Member States of the United Nations have often fallen short of these visions and goals. The Organization has been hampered by a Cold War, by competing regional blocs, and by obstructionist nations. Yet States have come together to achieve impressive ends—treaties banning chemical, biological and nuclear weapons, landmines and cluster munitions; regulating the trade in conventional arms; and 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.

We live in a time of formidable challenges. The global world order is seeing profound and sometimes unpredictable shifts. It is a key moment that will test the durability of traditional alliances and present important tests for international organizations such as the United Nations. In an evermore globalizing world, the efforts of such organizations to foster cooperation are vital to meet global crises and promote the common good.

Within these challenges are dangers, but also opportunities—not only to 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.

02

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
President of the United States (1953-1961)

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 and the levels of weapons production and stockpiles were all reduced. According to the Stockholm International Peace Research Institute (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

Top Military Spenders, 2016

| Country | Amount | Rank | % Change* |
|--------------------|--------|------|----------------|
| United States | \$611 | 1 | +1.7 per cent |
| China | \$215 | 2 | +5.4 per cent |
| Russian Federation | \$69 | 3 | +5.9 per cent |
| Saudi Arabia | \$64 | 4 | -30.0 per cent |
| India | \$56 | 5 | +8.5 per cent |

SOURCE: SIPRI, 2016b. The spending figures are in billions of current United States dollars.

* Per cent change in military expenditures, 2015-2016.

only one fifth of what the former Soviet Union had spent 10 years earlier.

After 1998, however, military spending began to rise once again, reaching nearly Cold War levels in some countries, including the United States. World military expenditures peaked in 2011, at \$1.699 trillion, representing 2.6 per cent of global gross domestic product (GDP).

Beginning in 2012, largely because of the global economic crisis, this trend was reversed (although the period 2015-2016 saw a slight uptick in spending). According to SIPRI, Global military expenditures for 2016 were \$1.686 trillion, representing 2.2 per cent of global GDP, or nearly \$227 per person worldwide.

While military spending overall increased only slightly during the period 2015-2016, spending in some regions increased more dramatically, including in Asia and Oceania, Europe and North Africa. Spending fell in Central and South America and the Caribbean, mostly due to cuts in oil-exporting countries, particularly Venezuela. Military spending in African oil-exporting countries, such as Angola and South Sudan, also decreased.

Military Spending by Region, 2016

| | |
|--------------|---------|
| Africa | \$37.9* |
| Americas | \$693 |
| Asia/Oceania | \$450 |
| Europe | \$334 |
| Middle East | \$187** |

SOURCE: SIPRI, 2016b. Amounts are in billions of 2016 United States dollars.

- * More than 10 per cent of this figure consists of estimates for countries for which data is missing.
- ** The Middle East figure is for 2014, the last year for which reliable data is available. All other figures are for 2016.

Military spending is highly concentrated; five countries worldwide account for 60 per cent of the total. The United States, which is first in military spending, alone accounts for nearly 36 per cent of total global military spending (this even though United States military spending is down 20 per cent since 2010). It is followed by China, which accounts for approximately 13 per cent of the global total, and the Russian Federation, which accounts for approximately 4 per cent.

Arms Production and Transfers

GLOBAL ARMS PRODUCTION, like global military spending, has decreased slightly in recent years. According to SIPRI, arms sales by the 100 largest arms-production and military-service companies globally totaled \$370.7 billion in 2015, a decrease of 0.6 per cent from the previous year. Arms sales have fallen for five consecutive years.

Arms sales, like arms expenditures, are highly concentrated. In 2015, United States companies dominated the top 100 arms-producing companies with total arms sales of \$209.7 billion. By

Global Arms Exports, 2016

| | |
|--------------------|---------|
| United States | \$9.894 |
| Russian Federation | \$6.432 |
| Germany | \$2.813 |
| France | \$2.226 |
| China | \$2.123 |
| United Kingdom | \$1.393 |

SOURCE: SIPRI, 2016b. Amounts are in billions of United States dollars.

comparison, in the same year, Western European companies had \$95.7 billion in arms sales and Russian companies had \$30.1 billion in arms sales. South Korean companies lead the rise of emerging arms producers in the top 100, with an increase in sales of almost 32 per cent in 2015.

Saudi Arabia agreed to the largest purchase of arms for the period 2011-2014, followed by India (Cordesman). In recent years, the flow of arms to the Middle East, Asia and Oceania, and Africa have increased, while arms imports to Europe have decreased (SIPRI).

The Opportunity Cost of Military Spending

WHEN THE UNITED NATIONS was founded in 1945, two of its overarching goals were maintaining international security and promoting international cooperation to solve economic, social, cultural and humanitarian problems ([Charter](#) of the United Nations, Article 1).

Article 26 of the Charter delineates efforts to promote international peace and security, “with the least diversion for armaments of the world’s human and economic resources”.

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.

At the first special session of the General Assembly devoted to disarmament (1978), Member States recognized that the “continued arms race” was a “growing threat to international peace and security” and declared that the build-up of arms “threatens to stall efforts at reaching the goals of development” (General Assembly resolution [S-10/2](#)).

Later, at the 1987 United Nations Conference on Disarmament and Development, States declared that “the world can either continue to pursue the arms race ... or move ... towards a more stable and balanced social and economic development within a more sustainable international economic and political order; it cannot do both” (United Nations).

More recent United Nations efforts to highlight the need for greater funding to meet global social needs culminated with the Millennium Development Goals (MDGs), a commitment by world leaders to “spare no effort to free our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty”. The MDGs, which concluded in 2015, helped lift more than one billion people out of extreme poverty, made inroads against hunger and enabled more girls to attend school than ever before.

Yet progress has been uneven and stubborn inequalities persist. More than 800 million people continue to live in extreme poverty, with more than half concentrated in just five countries. Women, children, the elderly, disabled people and others on the lowest rungs of the economic ladder face intractable hardships. Pronounced disparities persist between rural and urban areas. Climate change and environmental degradation threaten to undermine progress with severe consequences especially for the world’s poor. These are the persistent development problems

that the 2030 Agenda for Sustainable Development, which has succeeded the MDGs, is expected to tackle.

Today global military spending is upwards of \$1.6 trillion, 2.2 per cent of global GDP. While military spending was generally down for the period 2012-2015 in response to the global economic crisis, it ticked up again in 2016. (SIPRI)

At the same time, development aid has been rising, reaching a new peak in 2016 of \$142.6 billion. Despite this progress, however, aid to the least-developed countries has actually fallen, and official development assistance continues to lag behind the stated goal of the world's major donors to commit 0.7 per cent of GNP to development assistance. (Official assistance from the world's richest countries averaged 0.32 per cent of gross national income in 2016.) (Organisation for Economic Co-operation and Development)

NO ONE EXPECTS global military spending to be eliminated. States have legitimate security needs that must be met, as well as obligations to build and sustain regional and international security. But high levels of military spending are often cited by civil society advocates and other observers as resources that could and should be redirected towards human needs.

2030 Agenda for Sustainable Development

“ 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

New York Times columnist and Pulitzer Prize recipient

IN SEPTEMBER 2015, 193 world leaders agreed to 17 global goals for sustainable development. The overarching objectives of the goals are to end poverty, protect the planet and ensure prosperity for all. Many of the goals would require “substantial financial investment ... as well as political and social changes” (Perlo-Freeman).

How MUCH WOULD IT COST to achieve the Sustainable Development Goals (SDGs)? Precise costs are very difficult to calculate. That said, it has been estimated that the cost to achieve quality **universal primary and early secondary education for all** (SDG 4) would be just over 3 per cent of global annual military spending. **Eliminating extreme poverty and hunger** (SDG 1 and 2) would cost about 13 per cent of annual military spending. **Extending basic WASH** (water, sanitation and hygiene) (SDG 6) to unserved populations would cost less than 2 per cent of annual military spending. (Global Education Monitoring Report; Food and Agriculture Organization of the United Nations; Hutton and Varughese)

The 2030 Agenda for Sustainable Development does not directly address the negative impact of inordinate military spending. Nevertheless, it is true that reallocating about 10 per cent of world military spending could achieve major progress on key SDGs.

To achieve all the SDGs could cost an estimated \$1.4 trillion per year, or about 1.5 to 2.5 per cent of world GDP invested each year by the public and private sectors (Schmidt-Traub). It is a huge investment, only a bit less than annual military spending globally.

SPENDING ON SUSTAINABLE DEVELOPMENT will never replace military spending, nor should it. Yet, as one analyst suggests, the “SDGs are affordable globally”, but meeting them is “first, a moral challenge of re-directing resources” and “second, a practical challenge of organization ... and careful implementation”.

The 2030 Agenda for Sustainable Development is also an agenda for human security. It requires a shifting of priorities,

away from the traditional emphasis on militaries and weapons and towards a greater emphasis on ensuring opportunity and prosperity for all. These are challenging times for such an agenda, but a number of experts agree that the goal of a more just, more equal, more prosperous global community is reachable.



TO LEARN MORE about the Sustainable Development Goals, go to <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/convarms/milex/

Bonn International Center for Conversion

www.bicc.de

International Institute for Strategic Studies

www.iiss.org

Stockholm International Peace Research Institute

www.sipri.org

Transparency International

www.transparency.org

The Sustainable Development Goals

1. End poverty

1 in 5 people in developing regions live on less than US\$ 1.25 per day.

2. Zero hunger

1 in 9 people globally is undernourished.

3. Good health and well-being

More than 6 million children die before their fifth birthday each year.

4. Quality education

Less than half of all children attend secondary school.

5. Gender equality

2/3 of the illiterate people in the world are women.

6. Clean water and sanitation

663 million people are without access to clean drinking water.

7. Affordable and clean energy

Since 1990, global emissions of CO₂ have increased by more than 46 per cent.

8. Decent work and economic growth

Global unemployment increased from 170 million in 2007 to nearly 202 million in 2012.

9. Industry, innovation and infrastructure

About 2.6 billion people in the developing world face difficulties accessing electricity full time.

10. Reduced inequalities

Income inequality increased by 11 per cent in developing countries between 1990 and 2010.

11. Sustainable cities and communities

828 million people live in slums today and the number is rising.

12. Responsible consumption and production

1/3 of the 4 billion tons of food produced is lost or wasted.

13. Climate action

From 1880 to 2012, average global temperature increased by 0.85 degrees Celsius.

14. Life below water

Over 30 per cent of marine habitats have now been destroyed.

15. Life on land

By 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity.

16. Peace, justice and strong institutions

Corruption, bribery, theft and tax evasion cost some US\$ 1.26 trillion for developing countries per year.

17. Partnerships for the goals

Long-term investments are needed in critical sectors, especially in developing countries.



**There are some 15,395
nuclear warheads in the
world, enough to destroy
civilization many times over
and destroy most life on
earth.**

Stockholm International Peace
Research Institute

03

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

Scientist and Nobel laureate

NUCLEAR WEAPONS ARE THE MOST DESTRUCTIVE WEAPONS on earth. No other weapon poses an existential threat to humanity. 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, the resulting radiation and the nuclear winter that could potentially result when enormous clouds of smoke, fine dust and soot are thrown into the atmosphere. A number of recent studies have shown that even a limited regional nuclear war would cause significant climate disruption, resulting in nuclear famine that could affect over 2 billion people. Physicians and first responders would be unable to work in radioactively contaminated areas, making it impossible to reach and treat survivors.

The heat wave from a nuclear detonation would incinerate everything combustible in its path, the blast wave would collapse all but the strongest buildings and destroy infrastructure, and an electromagnetic pulse would disrupt electricity supply grids, electronics, medical equipment and satellite communications. The destruction could not be limited to military targets or combatants.

There is seemingly no way that any of the currently deployed stocks of nuclear weapons could ever be used without grave humanitarian consequences and irreparable damage to the environment and climate. Nuclear weapons have been used in war only twice—by the United States in Hiroshima and Nagasaki in 1945 during World War II. However, so long as such weapons continue to exist, the potential for their use, whether intentional or accidental, by States or by terrorists, remains.

How They Work

NUCLEAR WEAPONS RELEASE enormous amounts of energy either through 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 relatively 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 may still be in some countries) 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 most 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. Generally, however, only uranium enriched to a concentration of 90 per cent U-235 or greater is considered weapons grade. 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 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, as of 2015, global stocks of HEU totalled approximately 1,370 +/- 125 tons, and global stocks of separated plutonium totalled approximately 500 tons, enough to produce tens of thousands of new weapons.

While the amount of fissile material needed to make a nuclear weapon is not large, nuclear weapons are both technically difficult and expensive to produce. Yet former Secretary-General Ban Ki-moon warned, "Nuclear terrorism is one of the most serious threats of our time".

World Nuclear Forces

THE NUMBER OF NUCLEAR WEAPONS WORLDWIDE peaked in the mid-1980s at around 70,000 warheads (Kristensen and Norris). 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 2016, there were approximately 4,120 nuclear weapons deployed and ready for use globally. About 1,800 of these are reportedly kept on high alert, ready to be launched within minutes. In total, there are an estimated 15,395 nuclear warheads (operational, spares, active and inactive storage and intact warheads scheduled for dismantlement). (Stockholm International Peace Research Institute (SIPRI))

Nuclear-Weapon States

“ The States possessing nuclear weapons have a special responsibility to undertake concrete and irreversible steps in nuclear disarmament. There are many paths to a nuclear-weapon-free world. I appeal to all States to intensify their efforts to contribute to the shared vision in their own ways.”

ANTÓNIO GUTERRES
United Nations Secretary-General

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 United States. An additional three countries, India, Israel and Pakistan, never joined the NPT and are known or suspected to possess nuclear weapons. The Democratic People's Republic of Korea (DPRK), which withdrew from the

World Nuclear Forces, 2016

| State | Deployed Warheads | Other Warheads | Total |
|--------------------|-------------------|----------------|---------------|
| United States | 1,930 | 5,070 | 7,000 |
| Russian Federation | 1,790 | 5,500 | 7,290 |
| United Kingdom | 120 | 95 | 215 |
| France | 280 | 20 | 300 |
| China | -- | 260 | 260 |
| India | -- | 100-120 | 100-120 |
| Pakistan | -- | 110-130 | 110-130 |
| Israel | -- | 80 | 80 |
| DPRK | | | 10* |
| Total | 4,120 | 11,275 | 15,395 |

SOURCE: SIPRI, 2016b. All figures are approximate.

* The DPRK is estimated to have enough fissile material for approximately 10 nuclear warheads. However, due to the opacity of the DPRK nuclear programme, it is unclear whether the DPRK has produced or deployed operational weapons and there are differing views of how many nuclear weapons they possess. For these reasons, the total does not include figures for the DPRK.

NPT in 2003, is estimated to have enough fissile material for approximately 10 to 16 nuclear warheads as of July 2017 and has conducted five nuclear explosive tests. In addition, nuclear weapons belonging to the United States are hosted by five member States of the North Atlantic Treaty Organization: Belgium, Germany, Italy, the Netherlands and Turkey. (Arms Control Association; International Law and Policy Institute)

The United States and the Russian Federation, as well as France and the United Kingdom, have been reducing their deployed arsenals from Cold War levels, although the pace of reductions appears to be slowing. However, the United States

and the Russian Federation have extensive nuclear-weapon modernization programmes under way, and the United Kingdom and France are also committed to maintaining and modernizing their arsenals.

China appears to be gradually increasing its nuclear arsenal as it also modernizes its weapons. However, its nuclear weapons comprise less than 4 per cent of the nuclear arsenal of either the Russian Federation or the United States. In addition, none of Beijing's nuclear weapons are deployed. Unlike the Russian Federation and the United States, China has also declared it would never be the first to use nuclear weapons, no matter the circumstances.

India and Pakistan are both expanding their stockpiles of nuclear weapons and developing land-, sea- and air-based missile delivery systems. Israel is testing a long-range nuclear-capable ballistic missile. The DPRK, while subject to sanctions aimed at preventing it from expanding its nuclear programme, has conducted five nuclear test explosions beginning in 2006 and continuing into 2016.

The Russian Federation and the United States, with a combined total of more than 3,700 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.

According to the International Panel on Fissile Materials (IPFM), as of 2016, 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 is believed to have also ceased fissile-material production, though it has not announced an official moratorium.

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 conducted nuclear explosive tests (India in 1974, both in 1998) and are believed to be continuing to produce fissile materials for use in nuclear weapons, according to IPFM. India and Pakistan are also pursuing new nuclear delivery systems and Pakistan has developed tactical nuclear weapons capabilities.

North-East Asia

THE DPRK unilaterally withdrew from the NPT in January 2003. Since then it has conducted nuclear explosive tests in 2006, 2009, 2013 and twice in 2016. The DPRK is capable of enriching uranium and producing weapons-grade plutonium. The DPRK deploys short- and medium-range ballistic missiles and successfully launched long-range rockets in 2012 and 2016. In June and July 2017, the DPRK claimed to have successfully tested two intercontinental ballistic missiles. (While it is not definitively known whether the DPRK is capable of miniaturizing a nuclear device sufficiently to fit on a missile, many experts assess it is likely to have this capability based on comparisons with the progress of other nuclear weapons programmes.)

Six-Party Talks among China, the DPRK, Japan, the Republic of Korea, the Russian Federation and the United States began in 2003 with the goal of denuclearizing the Korean Peninsula. The talks, however, have been suspended since April 2009.

In response to the DPRK nuclear tests, the Security Council has adopted a series of resolutions that, among other measures, impose an arms embargo, freeze assets and ban travel for those involved with the nuclear programme, and

allow Member States to seize and destroy material headed for the DPRK that is related to weapons development.

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 (WMD)—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. That conference, however, was indefinitely postponed despite extensive efforts to reach consensus on an agenda.

At this point, there is no clear path forward for the establishment of a WMD-free zone in the Middle East.

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.

IRAN has been a non-nuclear-weapon State party to the NPT since 1970, but in 2005, the IAEA Board of Governors found Iran in non-compliance with its Comprehensive Safeguards Agreement. The following year, the United Nations Security Council adopted the first of a series of resolutions calling on Iran to suspend all uranium enrichment and heavy water-related activities and imposing sanctions.

Beginning in 2003, Iran, the IAEA and various world powers made numerous attempts to negotiate a settlement

regarding Iran's nuclear programme. After an intensive three-year process, in July 2015, Iran and the so-called E3/EU+3 (China, France, Germany, the Russian Federation, the United Kingdom and the United States, as well as the European Union) reached agreement on the Joint Comprehensive Plan of Action (JCPOA), a 25-year agreement limiting Iran's nuclear capacity in exchange for sanctions relief. Soon after, the Security Council unanimously adopted resolution [2231 \(2015\)](#), endorsing the JCPOA.

In December 2015, the IAEA issued an assessment of Iran's nuclear programme, concluding that Iran had "carried out activities relevant to the development of a nuclear explosive device" as part of a "structured programme" prior to the end of 2003 and "some activities" may have been "ongoing" until 2009, at which time they were ceased. The IAEA also concluded that there was no credible indication that nuclear material had been diverted from Iran's declared stock.

On 16 January 2016, nuclear-related sanctions on Iran were lifted after Iran met its nuclear-related commitments under the JCPOA.

Early Efforts Towards Nuclear Disarmament

IN ITS VERY FIRST RESOLUTION, adopted 24 January 1946, the United Nations General Assembly established a United Nations Atomic Energy Commission 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, underwater 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 2010 NPT Review Conference, a large number of States supported the idea of beginning work towards a comprehensive nuclear weapons convention, one 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. In the final document from the Review Conference, which was adopted by consensus, parties to the NPT expressed “deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons”.

Reframing the Nuclear Debate

BEGINNING IN 2013, a group of United Nations Member States and non-governmental organizations launched a humanitarian initiative seeking to reframe the disarmament debate by emphasizing the devastating effects of a nuclear detonation. Three intergovernmental conferences, held in 2013 and 2014, on the humanitarian impact of nuclear weapons culminated in a diplomatic pledge committing 127 Governments to cooperate “in efforts to stigmatize, prohibit and eliminate nuclear weapons” ([Humanitarian Pledge](#)).

On the heels of the intergovernmental conferences, in 2016, the United Nations convened an Open-ended Working Group (OEWG) taking forward multilateral nuclear disarmament negotiations. Subsequently, based on the recommendation of the OEWG, the General Assembly on 23 December 2016, adopted resolution [71/258](#), “Taking forward multilateral nuclear disarmament negotiations”, in which it decided to convene a United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons.

Subsequently, on 7 July 2017, the Treaty on the Prohibition of Nuclear Weapons, the first multilateral, legally binding instrument for nuclear disarmament to have been negotiated in 20 years, was adopted. High Representative for Disarmament Affairs Izumi Nakamitsu called the adoption of the Treaty “a clear message, on behalf of a large majority of nations, of the catastrophic humanitarian consequences that would result from any use of nuclear weapons”. (See pp. 37-38 for details about the Treaty.)

Clear and Present Danger

“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 laureate

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” (ElBaradei). In addition, according to the Nuclear Threat Initiative, 24 States possess weapons-usable nuclear materials.

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 Incident and 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 31 December 2015, 131 States were participating in the ITDB Programme. In some cases, non-participating States have also provided information to the ITDB. By the end of 2015, the ITDB contained a total of 2,889 confirmed reports of incidents involving nuclear and radioactive materials (including unauthorized possession, theft or loss, and other unauthorized activities).

A mistaken launch of nuclear weapons is also still a possibility, heightened by the fact that approximately 1,800 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 about \$30 billion per year just to maintain its stocks (NTI). The United States Congressional Budget Office estimates that the total cost to modernize the country's nuclear forces will be more than \$1.2 trillion over the next 30 years. (That amounts to \$4.6 million per hour for 30 years.) 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 Work Continues

THE UNITED NATIONS WAS FOUNDED "to save succeeding generations from the scourge of war" ([Charter](#) of the United Nations, Preamble). Efforts towards nuclear disarmament have been a vital part of this work. All Secretaries-General of the United Nations have supported such a goal.

In 1996, the International Court of Justice ruled that the use of nuclear weapons would "generally be contrary to the rules of international law applicable in armed conflict".

Treaties address non-proliferation, testing, nuclear-weapon-free zones and the prohibition of nuclear weapons.

More than 120 States have signed the [Humanitarian Pledge](#), promising "to follow the imperative of human security for all and to promote protection of civilians against risks stemming from nuclear weapons". The Pledge acknowledges that the possible use of nuclear weapons poses "profound moral and ethical questions". Is it moral to use nuclear weapons, which cannot be contained by national borders and potentially threaten the survival of humanity? Is it moral to use such weapons if no "response capacity exists that would

adequately respond to the human suffering and humanitarian harm that would result”?

Prominent international commissions, including the Canberra Commission, the Weapons of Mass Destruction Commission and the International Commission on Nuclear Non-Proliferation and Disarmament, 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 they will be used again, by accident or by design.

Prominent stateswomen and statesmen, researchers and civil society activists have argued that the development and possession of nuclear weapons cannot address contemporary security challenges (see, for example, the documentary film *Nuclear Tipping Point* and the book *5 Myths about Nuclear Weapons*). Some have gone so far as to call such weapons “useless” or a danger in and of themselves (Goddard).

Yet nuclear weapons continue to exist. Nuclear disarmament commitments remain unfulfilled. The non-proliferation regime is in a fragile state. To meet these challenges will take the efforts of many—States, civil society and the United Nations, among others—to once and for all “stigmatize, prohibit and eliminate nuclear weapons” ([Humanitarian Pledge](#)).

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 191 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.)

Treaty on the Prohibition of Nuclear Weapons

THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS, adopted on 7 July 2017, prohibits a range of nuclear weapon-related activities, such as undertaking to develop, test, produce, manufacture, acquire, possess or stockpile nuclear weapons or other nuclear explosive devices, as well as the use or threat of use of these weapons. States are also prohibited from allowing the stationing, installation or deployment of nuclear weapons or other nuclear explosive devices in their territory.

The Treaty obliges States to provide assistance to victims of nuclear weapons use and testing and to address the environmental damage caused by nuclear weapons.

Following the Treaty's adoption, the spokesperson for Secretary-General António Guterres said that the Treaty "represents an important step and contribution towards the common aspirations of a world without nuclear weapons".

The Treaty was adopted by a vote of 122 in favour to 1 against (Netherlands), with 1 abstention (Singapore). However, a number of countries stayed out of the negotiations, including the United States, the Russian Federation and other nuclear-weapon States and their allies. The DPRK also did not join the talks.

States that possess nuclear weapons can join the Treaty, so long as they agree to remove such weapons from operational

status immediately and destroy them in accordance with a legally binding, time-bound plan.

The Treaty acknowledges the “catastrophic humanitarian consequences that would result from any use of nuclear weapons” and the “unacceptable suffering” of victims of nuclear weapons use. It also recognizes the “disproportionate impact of nuclear-weapon activities on indigenous peoples”.

It is grounded in the notion that any use of nuclear weapons would be contrary to international humanitarian law and reaffirms the importance of the NPT “as the cornerstone of the nuclear disarmament and non-proliferation regime”. It also recognizes the importance of the “equal, full and effective participation of both women and men” in achieving sustainable peace and security.

The Treaty opens for signature on 20 September 2017. It will enter into force after the fiftieth State has signed and ratified it. Once the Treaty has entered into force, States parties will meet biennially, and conferences to review the operation and progress of the Treaty will take place every six years.

Comprehensive Nuclear-Test-Ban Treaty (CTBT)

THE CTBT, which bans all nuclear-related test explosions, opened for signature in September 1996 but has not yet entered into force. The Treaty was intended to further nuclear disarmament 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. The CTBT has been ratified by 166 countries as of August 2017, but it cannot take effect until nine additional countries listed in annex 2 of the Treaty ratify it: China, DPRK, Egypt, India, Indonesia, Iran, Israel, Pakistan and the United States. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) maintains a monitoring network of 286 certified facilities globally to verify that States parties to the Treaty are fulfilling their obligations.



TO LEARN MORE, see the website of the CTBTO at www.ctbto.org.

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 1998 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 2016. Once negotiations get under way, 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.



TO LEARN MORE, see the website of the International Panel on Fissile Materials at www.fissilematerials.org.

Nuclear-Weapon-Free Zones (NWFZ)

THE ESTABLISHMENT OF NWFZS is a regional approach to strengthening 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), Central Asia (Treaty on a Nuclear-Weapon-Free

Zone in Central Asia), Latin America and the Caribbean (Treaty of Tlatelolco), South-East Asia (Treaty of Bangkok) and the South Pacific (Treaty of Rarotonga). International treaties also prohibit the stationing of nuclear weapons in Antarctica, on the seabed, and on the moon or other celestial bodies. Each NWFZ treaty includes a protocol concerning security guarantees from nuclear-weapon States not to use or threaten to use nuclear weapons against States parties. (As of August 2017, 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 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 Member States, intergovernmental and non-governmental organizations, academic institutions and the media to promote the cessation of nuclear tests as a step towards a safer world. 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”.

International Day for the Total Elimination of Nuclear Weapons

ON 5 DECEMBER 2013, the General Assembly adopted resolution [68/32](#), declaring 26 September as the International Day for the Total Elimination of Nuclear Weapons. This day is devoted to “enhancing public awareness and education about the threat posed to humanity by nuclear weapons and the necessity for

their total elimination, in order to mobilize international efforts towards achieving the common goal of a nuclear-weapon-free world". To this end, the resolution welcomes relevant education and outreach activities by non-governmental organizations, academia, parliamentarians, the mass media and individuals. The observance provides an opportunity for Member States, the United Nations system and civil society to reaffirm their commitment to nuclear disarmament.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/wmd/nuclear

Federation of American Scientists

<https://fas.org>

International Campaign to Abolish Nuclear Weapons

www.icanw.org

International Physicians for the Prevention of Nuclear War

www.ippnw.org

Nuclear Age Peace Foundation

www.wagingpeace.org

Nuclear Threat Initiative

www.nti.org

Stockholm International Peace Research Institute

<https://www.sipri.org>

04

Treaty on the Non-Proliferation of Nuclear Weapons

“All countries must show greater commitment to the universal goal of a world without nuclear weapons. The nuclear-weapon States have a special responsibility to lead. Today, proliferation is creating unimaginable danger, and disarmament is paralyzed. There is an urgent need to prevent proliferation, to promote disarmament and to preserve gains made in these directions. These goals are linked. Progress on one will generate progress on the other.”

ANTÓNIO GUTERRES
United Nations Secretary-General

THE TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS (NPT), the cornerstone agreement in efforts to constrain the spread of nuclear weapons globally and to achieve nuclear disarmament, entered into force in 1970. One hundred and ninety-one States have joined the NPT, 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 and are believed to have acquired nuclear weapons after the NPT entered into force. To strengthen and expand IAEA safeguards against the diversion of nuclear material by

non-nuclear-weapon States, the voluntary Additional Protocol was adopted in 1997.

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 implementing this obligation has been incremental. 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 (Kristensen and Norris). Today the total number of warheads has been reduced to approximately 15,395, with about 4,120 of those actively deployed (Stockholm International Peace Research Institute (SIPRI)). 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.

About 1,800 nuclear weapons are kept on high alert, ready to be launched within minutes.

Former United Nations Secretary-General Ban Ki-moon, at the conclusion of the 2015 NPT Review Conference, expressed hope “that the growing awareness of the devastating humanitarian consequences of any use of nuclear weapons continues to compel urgent actions for effective measures leading to the prohibition and elimination of nuclear weapons”.

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 in Fukushima, 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 (2007-2016)

THE NPT 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 on whether non-proliferation or disarmament should take precedence.

Review Process

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 the conclusion of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) 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 CTBT just one year prior to the conference (in 1999). The 1998 nuclear-weapon test explosions by India and Pakistan, although not NPT members, also had repercussions for 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 ended without agreement on a substantive outcome document, amid deep divisions among States parties regarding the status of previously agreed commitments.

THE 2010 NPT REVIEW CONFERENCE succeeded in adopting a substantive final document. It included a review of the operation of the Treaty, as well as an 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 weapons of mass destruction. It also established benchmarks to be achieved by the 2015 Review Conference.

THE 2015 NPT REVIEW CONFERENCE faced considerable challenges, including disagreement over how to move forward on two key issues: a Middle East weapons of mass destruction-free zone and a legally binding prohibition on nuclear weapons. The conference was unable to adopt a final document.

DESPITE ONGOING CHALLENGES, the NPT remains vital and its accomplishments should not be overlooked. The Treaty is nearly universal. It alone legally binds nuclear-weapon States to work towards the elimination of their nuclear arsenals. It has been effective at halting the spread of nuclear weapons. There will, no doubt, be additional challenges, but the Treaty has proved durable and is likely to remain so.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/wmd/nuclear/npt/>

Nuclear Threat Initiative

<http://www.nti.org/learn/treaties-and-regimes/treaty-on-the-non-proliferation-of-nuclear-weapons/>

05

Chemical Weapons

THE USE OF CHEMICAL WEAPONS dates to antiquity but the modern use of such weapons begins with World War I, when both sides to the conflict used poisonous gas to inflict agonizing suffering and to cause significant battlefield casualties. Since then, 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 consisted of toxic chemicals put into standard munitions such as grenades and artillery shells. Chlorine, phosgene (a choking agent) and sulfur mustard (a blister agent) were among the chemicals used. The results were indiscriminate and often devastating. Nearly 100,000 deaths resulted.

As a result of public outrage, the Geneva Protocol, which prohibited the use of asphyxiating, poisonous or other gases (as well as biological weapons) in warfare, was signed in 1925. While a welcome step, the Protocol had 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 interwar period, 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 1980s, an estimated 25 States were developing chemical weapons capabilities. But since the end of World War II, chemical weapons have been used during the Iran-Iraq War in the 1980s and recently in Iraq and in Syria. The Organisation for the Prohibition of Chemical Weapons–United Nations Joint Investigative Mechanism concluded that the Syrian Arab Armed Forces and Islamic State in Iraq and the Levant (ISIL) were responsible for the use of these weapons. In addition, a September 2016 report by Amnesty International stated that chemical weapons had been used in Darfur. Malaysian police also report that the nerve agent VX, which is banned under the Chemical Weapons Convention, was used in 2017 to kill Kim Jong Nam, the half brother of Kim Jong Un, the leader of the Democratic People’s Republic of Korea.

Main Types of Chemical Weapons

Nerve agent

Blistering agent

Choking agent

Incapacitating agent

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction

THE DANGER REPRESENTED by chemical weapons led Governments to negotiate the Chemical Weapons Convention, which was opened for signature in 1993 and entered into force in 1997. The Convention 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. To ensure compliance with the Convention, the Organisation for the Prohibition of Chemical Weapons (OPCW) was established to carry out verification activities.

The prohibition of the acquisition, production and use of chemical weapons set in place by the Convention has largely been a success. As of August 2017, 192 States had ratified the Convention, representing 98 per cent of the global chemical industry. Eight countries have declared that they possess chemical weapons and 90 per cent of the world's declared stockpiles have been destroyed (OPCW). However, challenges remain, including the recent use of chemical weapons in Syria, Iraq and Darfur, as well as the slow rate of destruction of vast chemical arsenals by the Russian Federation and the United States.

The Work of the OPCW in Syria

CHEMICAL WEAPONS IN SYRIA are thought to have killed and injured several thousand people, many of them children (as of July 2017). In response to reports brought to his attention by Member States, in March 2013, the Secretary-General established the United Nations Mission to Investigate Allegations of the Use of Chemical Weapons in the Syrian Arab Republic, under the authority given to the Secretary-

General by the United Nations General Assembly (resolution [42/37](#) (C)) and supported by the OPCW and the World Health Organization. The Mission concluded that chemical weapons had been used on multiple occasions. Subsequently, on 14 September 2013, the Russian Federation and the United States agreed to a Framework for the Elimination of Syrian Chemical Weapons. Simultaneously, Syria acceded to the Chemical Weapons Convention.

In October 2013, the OPCW–United Nations Joint Mission for the Elimination of the Chemical Weapons Programme of the Syrian Arab Republic was established to oversee the dismantling and destruction of the Syrian chemical weapons programme. It completed its work in September 2014, having confirmed that more than 99 per cent of Syria’s declared stockpile of chemicals had been removed and destroyed.

Yet reports of chemical attacks persisted. In response, the Security Council adopted resolution [2235](#) (2015) condemning the use of toxic chemicals as weapons in Syria and establishing the OPCW–United Nations Joint Investigative Mechanism, which was charged with identifying those responsible for the attacks. It concluded that both the Syrian Arab Armed Forces and ISIL were responsible for chemical weapons use in Syria in 2014 and 2015. The situation is ongoing as reports of attacks persist in 2017.

Eliminating Libya’s Chemical Weapons

IN JULY 2016, LIBYA REQUESTED assistance to complete the destruction of its former chemical weapons programme. The Security Council (resolution [2298](#) (2016)) authorized urgent action and the OPCW facilitated and coordinated the efforts of contributing countries to remove, transport and destroy the remnants of Libya’s chemical weapons programme. The entirety of the remaining chemical weapons have been removed from Libya and, as of July 2017, are awaiting disposal in Germany.

Ongoing Efforts in the Russian Federation and the United States

ALTHOUGH BOTH THE RUSSIAN FEDERATION AND THE UNITED STATES missed deadlines for destroying their declared stockpiles of chemical weapons, work is ongoing. By May 2017, the United States had destroyed over 90 per cent of its declared Category 1 chemical weapons. Destruction is expected to be completed by 2023. Also by May 2017, the Russian Federation had destroyed 98 per cent of its declared Category 1 stockpile. Destruction is expected to be completed in 2018.

Chemical Terrorism

ALTHOUGH STATES have been the major users of chemical weapons, current concerns also focus on the possible use of these weapons by non-State actors.

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.

ISIL has also been found to have used chemical weapons in Syria and in Iraq.

The targeting of chemical plants or transport vehicles by non-State actors as acts of terrorism, the effects of which could be devastating, are of particular concern.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/wmd/chemical/>

Organisation for the Prohibition of Chemical Weapons

www.opcw.org

06

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, and in other conflicts thereafter. 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 and chemical 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 or chemical weapons.

Despite the weaknesses of the Geneva Protocol, the use of biological weapons during World War II was limited. Imperial Japan, which used biological weapons in attacks and experiments in occupied China, 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 programmes, the largest of which were conducted by the then Soviet Union and the United States. Anthrax, smallpox, plague and tularaemia 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 bioweapons programme. As a result of prolonged efforts by the international community to establish a new instrument that would supplement the 1925 Geneva Protocol, the Biological Weapons Convention was negotiated in Geneva and 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, defectors who had worked in the programme claimed 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, which signed the Convention in 1972 but only ratified it in 1991, was later found to have had, in the 1980s, a considerable and long-standing undeclared biological-warfare programme, which relied largely on imported strains and materials supplied by other countries.

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

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 August 2017, the Convention had 178 States parties.

In contrast to the Chemical Weapons Convention, the BWC has no implementing body and no means of monitoring implementation or verifying compliance. Any State party to the BWC that finds another State party in violation of the Convention may lodge a complaint with the Security Council, which may initiate an investigation. A modest system of annual exchanges of information, known as the confidence-building measures, has been in operation since 1987, but the level of participation has been low.

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, expanded this approach by establishing the Implementation Support Unit to assist States parties with the implementation of the Convention, facilitate communication with relevant organizations, and coordinate requests for and offers of assistance. The Eighth Review Conference of the Convention (2016) extended the mandate of the Unit until 2021.

While the BWC provides no formal mechanism to investigate uses of biological weapons, alleged use of such weapons can be investigated through the Secretary-General's Mechanism for Investigation of Alleged Use of Chemical, Biological and Toxin Weapons, which was established at the request of the General Assembly in 1987. Under the Mechanism, the Secretary-General, in response to a request by any Member State, may review the evidence and dispatch a fact-finding team to the location of the alleged attack. The team collects evidence and submits its findings to the Secretary-General to be reported to all United Nations Member States.

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 the use of the following: 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 aircraft, 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”. Such agents are also relatively easy to acquire as they 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. Some believe that the technological barriers to acquiring and using biological weapons have been significantly eroded over the course of the last years. 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 several 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 US\$ 1 billion. However, past failures by terrorists do not necessarily mean 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 of 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 and that those working in the life sciences are made aware of the risks, as well as the benefits, posed by advances in science and technology.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/wmd/bio/>

BWC Implementation Support Unit

www.unog.ch/bwc

07

Missiles and Missile Defence

ROCKETS AND MISSILES encompass an extremely diverse class of weapons. There is no technical distinction between rockets and missiles and the terms are often used interchangeably.

The term **rocket** typically refers to small-calibre (usually less than 600 mm), self-propelled, guided or unguided projectiles used by infantry and artillery forces in tactical, battlefield roles against ground-based targets. They normally carry conventional, high-explosive warheads. They can be launched from a variety of platforms, including human-portable launchers, multiple-launch systems, helicopters, aircraft and remotely piloted vehicles.

The term **ballistic missile** typically refers to larger-calibre (usually measured in metres), self-propelled, partially guided or unguided projectiles, which follow a ballistic trajectory for most of their flight path (i.e., determined by gravity), carry large weapons or other payloads and are regarded as strategic weapons. Their range varies from a few hundred kilometres (short range) to more than 5,500 kilometres (intercontinental). Payloads of existing ballistic missiles include conventional explosives to kiloton-yielding nuclear warheads. They are normally surface-launched (including from silos, fixed launch pads, mobile transporters or submarines).

Cruise missiles are self-propelled, guided projectiles, which sustain powered flight through the use of aerodynamic lift over most of their flight path, integrate an explosive charge directly into their airframe, can carry conventional or nuclear and other payloads, and can be launched from many types of platforms, including from aircraft, surface ships, submarines or ground-based launchers.

MISSILES ARE GENERALLY CATEGORIZED using the following means:

- › **Type of weapon** they carry (conventional, nuclear, chemical or biological);
- › **Method of propulsion** (jet or rocket engine);
- › **Launch platform** (ground, ship, air or underwater);
- › **Target** (land-based, sea-based, aircraft, missiles, satellites); and
- › **Range** (see the box below), although there is no universally accepted standard for the classification of missiles according to their ranges.

Categorizing Ballistic Missiles

Missiles are often subcategorized by range:

Short-range ballistic missiles

Less than 1,000 kilometres

Medium-range ballistic missiles

1,000 to 3,000 kilometres

Intermediate-range ballistic missiles

3,000 to 5,500 kilometres

Intercontinental ballistic missiles

More than 5,500 kilometres

Missiles pose a number of concerns for the international 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 armed forces and non-State actors for use against Government forces and civilian populations. Meanwhile, technically advanced armed forces are developing ever more sophisticated intercontinental ballistic missiles capable of delivering nuclear weapons over long distances with increasing accuracy and little warning.

The continued existence and proliferation of missiles 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.

Ballistic Missiles

THE FIRST BALLISTIC MISSILE to be used operationally was the German V2 in World War II. Within two decades after the end of the war, missile technology had spread to the five nuclear-weapon States (China, France, Russian Federation, United Kingdom and United States), all of whom have since developed the capability to deliver nuclear weapons with ballistic missiles anywhere on the globe. According to Arms Control Association, an estimated 31 States possessed ballistic missiles as of July 2014.

However, fewer than a dozen States (China, Democratic People's Republic of Korea (DPRK), France, India, Iran, Israel, Pakistan, Russian Federation, Saudi Arabia, United Kingdom

and United States) possess medium- or longer-range ballistic missiles, and only the five nuclear-weapon States are believed to deploy intercontinental ballistic missiles (ICBMs). The DPRK and India are currently testing ICBMs.

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 to operate and perform with higher accuracy. These factors have contributed to the proliferation of cruise missiles.

Other Types of Missiles

ANTI-MISSILE SYSTEMS, also known as missile defence, have been actively developed and acquired by a growing number of States in recent years, especially as missile threats have continued to increase. In some situations, the development and deployment of missile defence systems have been controversial and have risked spurring arms races.

The United States is the clear leader in missile defence globally, having spent roughly US\$ 190 billion between 1985 and 2017 to develop its capability (the figure represents Congressional appropriations reported by the Missile Defense Agency). At present, only the Russian Federation and the United States deploy missile defence systems designed to intercept ICBMs. A growing number of countries deploy missile defence systems capable of intercepting short- and medium-range missiles, cruise missiles and artillery rockets. Only the United States has deployed national missile defence infrastructure on the territory of other States.

For decades, the bilateral Anti-Ballistic Missile Treaty served as a cornerstone for strategic stability between the Russian Federation and the United States. Since the United States withdrew from the Treaty in 2002 to pursue a national missile defence system, the two countries have disputed the relationship between strategically offensive and defensive weapons.

The current plans by the United States for its national missile defense system include the deployment of ground-based interceptors and radars in Eastern Europe, as well as the sea-based Aegis Missile Defense System. The Russian Federation has 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 against possible missile threats. The Russian Federation believed such threats to be minimal.

The deployment by the United States of the Terminal High Altitude Area Defense system to Guam and the Republic of Korea, in response to the missile activities of the DPRK, has also been publicly opposed by China and the Russian Federation.

ANTI-SATELLITE WEAPONS have also become a matter of international concern following high-profile events in recent years. In 2007, China shot down a defunct weather satellite at an altitude that generated a substantial amount of long-lived debris. In 2008, the United States intercepted a failed satellite, which was falling out of orbit. The United States used an anti-ballistic missile system for the intercept, demonstrating the close link between missile defense capabilities and anti-satellite capabilities. The only other State believed to have actively developed a dedicated anti-satellite capability was the Soviet Union during the Cold War.

SURFACE-TO-AIR MISSILES are designed to intercept aircraft rather than other missiles or satellites. Such missiles can be ground- or ship-based.

A subset of this category, man-portable air defence systems (MANPADS) or shoulder-fired missiles, are of particular concern. MANPADS are attractive to 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 characterizes MANPADS as an “imminent and acute threat” to military aircraft and civilian airliners. Since their development in the 1960s, millions of MANPADS have been manufactured worldwide. According to the Small Arms Survey, there are an estimated 500,000 to 750,000 MANPADS globally, many thousands of which are thought to be on the black market. MANPADS are produced by about 25 countries.

Missile Arms Control Regimes

THE PROLIFERATION OF MISSILE TECHNOLOGY remains a critically important issue, linked to the proliferation of nuclear weapons. Modern missiles can be exceptionally accurate and efficient in delivering nuclear weapons over long distances. Without such missiles, which are extremely difficult to defend against, nuclear weapons arguably have significantly less credible deterrence potential.

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 or control. The measures that do exist are voluntary and informal and have significant shortcomings. The two existing 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 35 participating States, including many of the world’s key missile manufacturers. Its aim is to limit the spread of ballistic missiles and other unmanned delivery systems that could be used to carry out attacks with weapons of mass destruction. The regime’s 35 members are urged to restrict their exports of missiles and related technologies capable of carrying a

500-kilogram payload at least 300 kilometres or delivering any type of weapon of mass destruction. The MTCR has been credited with slowing or stopping several missile programmes, but it faces serious challenges, including advancing missile programmes in Iran, India, the DPRK and Pakistan (of these, only India is an MTCR member). Some non-participating States have also engaged in transferring missile technologies on the global arms market.

The Hague Code of Conduct, which has 134 subscribing States, was established in 2002 and calls on all countries to restrain their own development of ballistic missiles capable of delivering weapons of mass destruction and to reduce their existing missile arsenals, if possible. Participating countries exchange information annually on their ballistic-missile and space-launch-vehicle programmes and provide advance notice of any launch of ballistic missiles or space-launch vehicles. 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 www.hcoc.at.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/wmd/missiles/>

Arms Control Association

<https://www.armscontrol.org/factsheets/MissileIssues>

08

Conventional Arms and the Arms Trade

“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 laureate

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 throughout the world. They also remain widely available and are hardly regulated.

Conventional Arms Sales

THE VALUE OF CONVENTIONAL ARMS TRANSFER AGREEMENTS (Government-to-Government orders for future delivery of arms) worldwide was \$79.9 billion in 2015, a decrease of about 10 per cent from 2014, according to the United States Congressional Research Service (Theohary). Conventional arms sales were down globally, it notes, at least in part due to the global economic crisis that began in 2008. Concerns over domestic budget problems have led many purchasing nations (more than three quarters of which are developing countries) to defer or limit the purchase of new major weapon systems.

Since the end of the Cold War, the United States has dominated the conventional arms sales market. In 2015, the United States led in arms transfer *agreements*, making agreements valued at \$40.2 billion (50.29 per cent of the global total). France ranked second at \$15.3 billion in agreements (19.16 per cent of the global total). In 2015, the United States also ranked first in the value of all arms *delivered* globally. The Russian Federation and France ranked second and third, respectively. Collectively, in 2015, these three suppliers delivered more than two thirds of all arms delivered globally. The value of international arms deliveries in 2015 was nearly \$46.2 billion, a decrease from the previous year, which saw \$54.1 billion in arms deliveries.

Despite volatility in the global economy in recent years, some States have resumed or continued large weapons purchases, particularly in the Near East and Asia. Saudi Arabia,

the United Arab Emirates and India have all made large arms purchases recently.

The value of arms transfer agreements with developing nations in 2015 was \$65.2 billion, a substantial decrease from 2014. The value of all arms deliveries to developing nations (\$33.6 billion) also decreased slightly from 2014 deliveries. Traditionally, the United States and the Russian Federation have dominated the arms market in the developing world, but in 2015, France moved up the ranking to second place. For the period 2012 to 2015, however, the United States ranked first with \$85.6 billion in arms transfer agreements to the developing world, while the Russian Federation ranked second with \$48.6 billion in arms transfer agreements to developing countries. Together, the United States and the Russian Federation made just over half of all arms transfer agreements with developing States during this time.

Despite increasing competition, it seems likely that the United States will retain its position as the principal supplier of arms to the developing world for the foreseeable future.

The leading markets for arms in the developing world have been predominately in the Near East (especially Saudi Arabia) and Asia (especially India and China). Latin American and African States have not been major purchasers of weapons, with rare exceptions.

Problems Posed by the Unregulated Trade in Arms

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, until recently, there was no global set of rules governing the trade in conventional weapons. While a variety of national and regional control measures on arms transfers existed, they were too often lax or unenforced.

The unregulated flow of arms poses numerous challenges for the United Nations. Weapons can be diverted to the illicit market for use in armed conflict, criminal activities and violence, including by organized crime groups. They can also fuel corruption and impede efforts in peacekeeping, 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, all States must assume particular responsibility for the arms trade.

The Arms Trade Treaty

“The opportunity denied to millions of people because of armed insecurity and massive misuse of weapons, should compel all of us to promote the Arms Trade Treaty.”

JAN ELIASSON

United Nations Deputy Secretary-General (2012-2016)

IN APRIL 2013, AFTER MORE THAN A DECADE of vigorous advocacy by civil society and discussion at the United Nations, the General Assembly approved the Arms Trade Treaty (ATT), the first-ever global treaty to establish common international standards to guide Governments in deciding whether or not to authorize arms transfers. The ATT promotes cooperation, transparency and responsible action by States in the international trade in conventional arms. The Treaty, which entered into force on 24 December 2014, regulates the international trade in almost all categories of conventional

weapons—from small arms to battle tanks, combat aircraft and warships. Ammunition, as well as parts and components, are also covered. As of August 2017, the ATT had 92 States parties. (Among major arms exporters, the countries of Western Europe have ratified the Treaty, the United States has signed but not ratified it, and the Russian Federation and China have neither signed nor acceded to it.)

The ATT establishes circumstances under which arms can never be transferred—namely if such a transfer could violate Security Council arms embargoes or be used to commit acts of genocide, crimes against humanity or war crimes. States must deny an export if there is an “overriding risk” that weapons may be used to negatively impact peace and security, undermine international humanitarian and human rights law, or facilitate terrorism, organized crime or gender-based violence.

States parties to the ATT also commit to developing export and import controls for conventional weapons and are encouraged to regulate the transit of weapons through their territories. A primary goal of the Treaty is to promote transparency in global arms transfers. To this end, States parties must report on their regulatory systems and their actual imports and exports of weapons. States are also encouraged to take measures to prevent the diversion of arms to the illicit market.

The ATT is the first legally binding regime to recognize the link between gender-based violence and the global arms trade.

States that have joined the Treaty meet annually at the Conference of States Parties (CSP) to report on progress in implementing the Treaty. The first two Conferences (held in 2015 and 2016) dealt primarily with administrative matters, including an agreement at CSP2 to recommend the use of reporting templates developed by an appointed working group. After CSP2, some civil society groups expressed concern that there had been no substantive discussion of actual arms transfers that might violate or undermine the Treaty.

The United Nations Trust Facility Supporting Cooperation in Arms Regulation provides funding to assist States in implementing the ATT.



TO LEARN MORE, an ATT Implementation Toolkit and additional information are available from the website of the United Nations Office for Disarmament Affairs (<https://www.un.org/disarmament/convarms/att/>).

Additional 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 (General Assembly resolution [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 missile 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.



TO READ the reports, go to <http://www.un-register.org/HeavyWeapons/Index.aspx>.

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. Since its inception, more than 100 countries have reported at least once to the Register, though rates of reporting have appeared to be in decline since 2010. Nevertheless, the Register continues to capture data on the bulk of international arms transfers, as all large arms-exporting States report regularly to the Register.

Convention on Certain Conventional Weapons

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 (more commonly called the Convention on Certain Conventional Weapons (CCW) and also known as the Inhumane Weapons Convention) entered into force in 1983. The CCW 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 125 States parties (as of August 2017).

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 on Non-Detectable Fragments (Protocol I)** (118 States parties) prohibits the use of any weapon designed to injure by fragments that are undetectable in the human body by X-ray.

- › **Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices as amended (Amended Protocol II)** (104 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. (See also pp. 97-98.)
- › **Protocol on Prohibitions or Restrictions on the Use of Incendiary Weapons (Protocol III)** (115 States parties) bans the use of incendiary weapons against civilians and air delivery of such weapons against military installations located within civilian concentrations.
- › **Protocol on Blinding Laser Weapons (Protocol IV)** (108 States parties) prohibits the use of laser weapons specifically designed to cause permanent blindness to the naked eye.
- › **Protocol on Explosive Remnants of War (Protocol V)** (93 States parties) is the first multilaterally negotiated instrument to deal with the problem of unexploded and abandoned ordnance. (See also p. 102.)

In 2001, at the Second Review Conference, States parties decided to amend the Convention so that it applies not only to inter-State conflicts (its original scope) but also to internal armed conflict. Eighty-five States parties have notified the Secretary-General of their consent to be bound by this amendment.

A unique characteristic of the CCW is its ability to address emerging issues and the possibility for negotiating new protocols. A Group of Governmental Experts will convene two sessions in 2017 to address emerging technologies in the area of lethal autonomous weapons systems (LAWS)—weapons systems that can select and engage targets without intervention by a human operator. Weapons systems with full lethal autonomy have not yet been deployed but are being developed. (For more information on LAWS, see chapter 12.)



TO LEARN MORE and find the latest updates on the CCW, go to <https://www.un.org/disarmament/geneva/ccw/> and <https://www.unog.ch/ccw>.

For More Information

United Nations Office for Disarmament Affairs

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

Institute for Security Studies

<https://issafrica.org/>

International Committee of the Red Cross

www.icrc.org

Red de Seguridad y Defensa de America Latina

www.resdal.org

09

Small Arms and Light Weapons

“Lived with an AK-47 by my side
Slept with one eye open wide
Run, duck, play dead and hide
I’ve seen my people die like flies”

EMMANUEL JAL

Artist and 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 for civil wars, terrorism, organized crime and gang warfare. Small arms are cheap and light, as well as easy to handle, transport and conceal. A build-up alone of small arms, and of the ammunition that makes them lethal, does not create conflict, but their excessive accumulation and wide availability may 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 around the world: mobs terrorizing a neighbourhood, rebels attacking civilians or peacekeepers, drug lords killing law enforcement officials, bandits hijacking humanitarian aid convoys. In many countries, uncontrolled small arms and light weapons create serious security concerns.

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. The Small Arms Survey estimated that between 700,000 and 900,000 small arms are 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 has not been well regulated and is the least transparent of all weapons systems. Indeed, the Small Arms Survey 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”. 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 often 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. In addition, the Internet and dark Web pose a range of new challenges, including the risk of terrorist and criminal access to weapons.

Ammunition

AMMUNITION IS A KEY PART of any discussion on small arms control, yet very little 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 resupply in situations conflicting with the rule of law should be a matter of prime concern.

Also concerning is the fact that diverted conventional ammunition is increasingly used to make improvised explosive devices. Much of the ammunition circulating among non-State actors seems to have been diverted from government security forces, demonstrating the urgent need for more secure ammunition management.

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.

Both the danger of unplanned explosions of ammunition depots and diversion to the illicit market are matters of considerable concern for the international community, hence the critical importance of efforts to assist States in establishing measures for safe and secure management of ammunition.

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 immediate destruction of surplus and collected weapons and ammunition removes possible fuel for new instability and builds confidence among communities that they are on the path towards peace and development.

Improvised Explosive Devices (IEDs)

IEDS ARE AMONG THE OLDEST TYPES OF WEAPONS, but are difficult to define because of their “improvised” nature. This also makes their control challenging for the international community. Not only can IEDs be used in conflict, but also in circumstances of internal strife and terrorist acts.

IEDs are increasingly used by illegal armed groups, terrorist groups and others, resulting in thousands of civilian and military casualties. IED attacks have also caused serious harm to United Nations staff and peacekeepers and to humanitarian workers, threatening their lives, increasing the cost of their activities, limiting their freedom of movement and affecting their ability to carry out their mandates. Children are often among the victims of IEDs. Annually, IED attacks kill and injure more people than do attacks with any other type of weapon except firearms. IEDs also negatively impact socioeconomic development, infrastructure, and the security and stability of States.

There are a number of challenges to countering IEDs. They can be simple to design, with components that are cheap and easily accessible through criminal networks and porous borders. Materials for IEDs may also be available as a result of corruption and poor ammunition stockpile management. In some cases, terrorist groups have created sophisticated IED production facilities in territories under their control. Groups share instructional videos about IED construction and attacks online. In countries where strict weapons controls are in place, IEDs seem to be an increasingly attractive alternative or addition to illicit small arms as they can be made using dual-use and readily accessible explosive materials.

In response, the United Nations General Assembly passed a resolution (71/72) in 2016 urging, among other things, that States develop national policies to counter IEDs and take appropriate measures to strengthen the management of national ammunition stockpiles to prevent the diversion of materials for making IEDs to illicit markets and illegal and unauthorized groups. The resolution also encourages States to share information, on a voluntary basis, on the diversion to the illicit trade of certain explosives and detonators that could be used to construct IEDs.

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. 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; and (3) provisions on the marking and tracing of firearms.



TO LEARN MORE about the Convention and the Firearms Protocol, go to www.unodc.org/unodc/en/treaties/CTOC/index.html.

On the broader 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. This politically binding instrument encourages all United Nations Member States to adopt measures at the national, regional and global levels to prevent, combat and eradicate the illicit trade in these weapons. It contains concrete suggestions for improved national legislation and controls, and international assistance and cooperation.



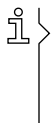
TO LEARN MORE about the Programme of Action, go to www.poa-iss.org.

In 2005, with a view to meeting relevant obligations in 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 tracing such weapons

and responding to tracing requests in accordance with the requirements of the Instrument.

Participation in the Programme of Action's biennial reporting process has been substantial, according to the Small Arms Survey. More than 80 per cent of States have submitted at least one national report. Europe has the highest reporting rate (98 per cent) and Oceania the lowest (43 per cent). However, the rate of reporting has decreased since 2008.

In 2010, the Security Council recommended that stockpile security and the management of arms and ammunition be promoted "as an urgent priority" (resolution [1952 \(2010\)](#)). The General Assembly requested the United Nations to develop guidelines for safely and securely managing conventional ammunition. In response, the United Nations SaferGuard Programme was established to oversee the dissemination of the International Ammunition Technical Guidelines (IATG)—detailed standards for voluntary use by countries that wish to improve the safety and security of their ammunition storage sites. The IATG are being used to support ammunition stockpile management efforts in more than 90 countries. They offer practical, technical advice to assist national authorities (including armed forces, police officers and border control officials), as well as industry, private security companies and others, to enhance the safety and security of ammunition stockpiles.



TO LEARN MORE about the United Nations SaferGuard Programme and the IATG, go to <https://www.un.org/disarmament/un-safeguard/>.

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



TO READ the Basic Principles, go to <http://www.ohchr.org/EN/ProfessionalInterest/Pages/UseOfForceAndFirearms.aspx>.

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 INTERNATIONAL SMALL ARMS CONTROL STANDARDS (ISACS) aim to reduce the risk of small arms and light weapons falling into the hands of those who would misuse them—such as criminals, armed groups and terrorists—by providing guidance to States on establishing effective national controls over such weapons.

ISACS comprises 24 standards that provide guidance on operational issues (stockpile management, marking, tracing, collection and destruction), legislative and regulatory controls, programme management (e.g., design and implementation of national and community action plans), and special considerations relating to women, gender, children, adolescents and youth.

In addition, the United Nations Institute for Disarmament Research has developed software that allows States to conduct self-assessments of their national small arms and light weapons controls based on ISACS. The United Nations and partners are using ISACS in more than 100 countries.



TO LEARN MORE, go to <http://www.smallarmsstandards.org/tools/>.

Armed Violence

EVERY YEAR, ARMED VIOLENCE KILLS about 535,000 people. More than three quarters of them die in non-conflict settings (Small Arms Survey). Illicit flows of small arms and light weapons undermine security and the rule of law. They are often a factor in the forced displacement of civilians and human rights violations.

Armed violence aggravates poverty, inhibits access to social services and diverts energy and resources away from the bedrock elements of sustainable development, such as infrastructure, education, health, clean water and sanitation. It contributes to the displacement of communities and the loss of livelihoods. It can also exacerbate inequalities and impede women's empowerment.

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.

Use of Small Arms in Human Rights Abuses

MORE HUMAN RIGHTS ABUSES are committed with small arms than with any other weapons. High levels of arms and ammunition in circulation, exacerbated by poor management and controls, contribute to violations of international humanitarian and human rights law. Small arms facilitate a spectrum of human rights violations, including killing, maiming, rape and other forms of sexual and gender-based 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, particularly in their own homes. The illicit transfer, misuse and accumulation of small arms and light weapons can have a disproportionate effect on women and girls.

Studies in a number of countries have shown that the majority of female murder victims are killed by an intimate partner; in countries where guns are easily available, they are often the weapon used. In contrast, most male victims of gun violence are killed outside the home by people who are not their intimate partners. Armed violence can also leave women as surviving partners and heads of households, and impede their participation in their communities, including post-conflict as part of disarmament, demobilization and reintegration processes and community security initiatives.

For young men, violence—particularly small arms violence—can be a means to achieve a social and economic status they feel entitled to. Small arms are sometimes seen as symbols of power, especially for marginalized young men.

There is an urgent need for continued study about armed violence that takes into account gender, age, victim-offender relationships, the type of weapon used and the status of gun laws (among other factors) to identify patterns and guide effective responses addressed towards survivors and perpetrators, as well as community leaders, peace negotiators and peacekeepers. Therefore, sex- and age-disaggregated data collection is vital.

It is also 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. Experts have noted the relationship between easy access to firearms and the denial of children’s rights and acknowledged that access to firearms facilitates the recruitment of children to engage in organized crime.

Armed-gang activity 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 some recent progress in this area because of concerted international efforts, 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

<https://s3.amazonaws.com/unoda-web/wp-content/uploads/2017/04/SALW-Fact-Sheet-Apr2017.pdf>

GunPolicy.org

www.gunpolicy.org

International Action Network on Small Arms

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



10

Landmines

“Peace without mine action is incomplete peace.”

ANTÓNIO GUTERRES
United Nations Secretary-General

ANTI-PERSONNEL MINES (or landmines) have been widely used in international and non-international armed conflicts, including the two World Wars, the war in South-East Asia, the Korean War and the 1991 Gulf War. During the Cold War, many States laid landmines along their borders. Landmines, including victim-activated improvised explosive devices, are still being used in a handful of conflicts. In recent years, explosive remnants of war have also become a global problem, killing and injuring thousands of civilians annually.

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. Most of the victims then 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 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 armed non-State actors. As a result, their number increased considerably and tens of millions of landmines were placed and are still buried in over 60 countries and areas around the world, many of them unmarked, unmapped and often left unrecorded (International Campaign to Ban Landmines (ICBL)).

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 every year. The ICBL Landmine Monitor has recorded more than 100,000 mine and explosive-remnants-of-war casualties since 1999. The vast majority of recorded casualties are civilians.

Explosive remnants of war also represent a serious post-conflict humanitarian problem. They are explosive conventional munitions that have been abandoned, or have been used but have failed to explode upon impact and—like landmines—may lie dormant for years after the end of active hostilities and directly impact many aspects of civilian life.

Thanks in large part to the Anti-Personnel Mine Ban Convention, the work of the United Nations, and the awareness that has been raised by civil society groups, great progress has been made (more information on the Convention below). The United Nations has cleared vast areas once contaminated by landmines and explosive remnants of war. Land that was once dangerous has been made productive again. Once-mined roads and airstrips now provide access to people in need. The United Nations, working with States and other partners, has also provided medical assistance to victims, educated millions about landmines and trained thousands of women and men in mine action jobs. Increasingly, the United Nations also

provides help in managing ammunition stockpiles to avoid accidental detonations.

The numbers of those maimed and killed by landmines has decreased considerably over the past two decades and the global trade in anti-personnel landmines has nearly halted. The year 2015, however, saw a sharp rise in the number of people killed and injured by mines, including victim-activated improvised explosive devices, cluster munition remnants and other explosive remnants of war. The increase was due to casualties in armed conflicts in Libya, Syria, Ukraine and Yemen (and may also be due to better collecting of casualty data).

THERE IS STILL much work to be done. Sixty-four countries and areas in every region of the world are still affected to some degree by landmines. Some of the most contaminated places include Afghanistan, Angola, Azerbaijan, Bosnia and Herzegovina, Cambodia, Chad, Croatia, Iraq, Thailand, Turkey and the area of the Western Sahara. The use of anti-personnel mines by States remains relatively rare. There were no confirmed use of these weapons by States parties to the Treaty during the last few years. However, Government forces of Myanmar, the Democratic People's Republic of Korea and Syria (none of which are party to the Anti-Personnel Mine Ban Convention) reportedly used anti-personnel landmines in 2015 and 2016. During the same period, non-State armed groups reportedly used anti-personnel landmines in 10 countries—Afghanistan, Colombia, Iraq, Libya, Myanmar, Nigeria, Pakistan, Syria, Ukraine and Yemen.

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 ANTI-PERSONNEL MINE BAN CONVENTION or the Ottawa Convention, the treaty bans the use, production, stockpiling and transfer of anti-personnel landmines. 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 laid in the ground within 10 years. The Convention also calls upon States to aid with the social and economic reintegration, as well as the care and the rehabilitation, of mine victims.

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 that time. It entered into force in March 1999.

The Anti-Personnel Mine Ban Convention entered into force more quickly than any other treaty of its kind and, as of August 2017, had 162 States parties. A number of key States remain outside the Convention, however, 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 universalization, discuss its status and operation and review its implementation.

Review Conferences are convened every five years to review the operation and status of the Convention. In Cartagena, Colombia, in 2009, 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. At the Third Review Conference (2014), held in Maputo, Mozambique, 79 States parties signed the Maputo Declaration, stating that they aspired to meet the goals of the Convention to the fullest extent possible by 2025.

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



TO LEARN MORE about the Convention, go to www.apminebanconvention.org and www.unog.ch/aplc.

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

AMENDED PROTOCOL II to the Convention on Certain Conventional Weapons (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 mines and other mines (anti-vehicle landmines) but does not provide for their total ban. As part of international humanitarian law, Amended Protocol II (an amended protocol is added to strengthen provisions not included in the original text) prohibits in all circumstances using 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.

Amended Protocol II is the sole legally binding instrument that explicitly covers improvised explosive devices (IEDs). As such, it is an essential tool for the international community to address the increasing threat of IEDs, which have become a primary weapon for non-State armed groups and pose an acute challenge in many current conflicts.

One hundred and four States are party to Amended Protocol II as of August 2017.

For More Information

United Nations Office for Disarmament Affairs

www.un.org/disarmament/convarms/landmines/
www.unog.ch/disarmament/

Convention on Certain Conventional Weapons

<http://www.unog.ch/ccw>

United Nations Mine Action Service

www.mineaction.org

Handicap International

www.handicap-international.org

International Campaign to Ban Landmines

www.icbl.org

Landmine and Cluster Munition Monitor

<http://www.the-monitor.org/en-gb/home.aspx>

11

Cluster Munitions

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

THOMAS NASH

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 35 countries and territories have been affected by their use and more than 20 countries have used them (Cluster Munition Coalition). Cambodia, the Lao People’s Democratic Republic and Viet Nam, which were bombed 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, as well as Afghanistan, Albania, Chechnya and the former Yugoslav Republics. The Cluster Munition Coalition and Human Rights Watch report

the use of cluster munitions in a number of countries since the year 2000, including in Afghanistan, Cambodia, Georgia, Iraq, Israel, Lebanon, Libya, South Sudan, the Sudan, Syria, Ukraine and Yemen.

There is no reliable data on the exact number of people maimed or killed by cluster munitions globally. The Cluster Munition Monitor refers to 20,300 documented cluster munition casualties globally from the 1960s to 2016, but notes that many casualties go unrecorded or lack sufficient documentation. The Monitor estimates that the actual number of all-time casualties is more than 55,000. 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 (Human Rights Watch).

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

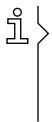
THE CONVENTION ON CLUSTER MUNITIONS, which outlaws the use, development, stockpiling, production, acquisition, retention and transfer, of nearly all cluster munitions is the result of what has become known as the Oslo Process, the collaboration among Governments, the United Nations, the International 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 August 2017, 108 States had signed the Convention, of which 102 are States parties.

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 (article 3.2); to clear and destroy cluster munition remnants within 10 years (article 4); and to provide assistance to countries affected by cluster munitions (article 6). Article 5 of the Convention contains important victim-assistance obligations for the States parties.

There have been no confirmed reports or allegations of new use of cluster munitions by any State party since the Convention was adopted. Forty States parties have stockpiled cluster munitions at some point; 29 of those have completely destroyed their stockpiles, representing the destruction of 93 per cent of the total stockpiles of cluster munitions and 97 per cent of the total number of submunitions declared by States parties. (Cluster Munition Coalition)

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 that stockpile the overwhelming majority of cluster munitions, in particular China, India, Israel, Pakistan, the Russian Federation and the United States, are not parties to the Convention. There have been annual meetings of States parties to review the implementation of the Convention. The First Review Conference of the Convention took place in 2015 in Croatia, where States parties adopted the [Dubrovnik Declaration](#) committing “to end harm caused by cluster munitions”.



TO LEARN MORE about the Convention and its Implementation Support Unit, go to www.unog.ch/ccm or <http://www.clusterconvention.org/isu/>.

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 to the Convention on Certain Conventional Weapons (or the Protocol on Explosive Remnants of War (ERW)) was concluded in 2003, the last Protocol to be concluded under the Convention. It seeks to both prevent and alleviate the harm caused by the effects of abandoned or unexploded ordnance. While the harm caused by anti-personnel mines and cluster munitions may eventually cease, explosive remnants of war will be an ongoing reality of future conflicts. The Protocol broke new ground by requiring for the first time that a party that participates in a conflict must contribute to the clearance of ERW. Another key obligation of the Protocol is that it requires armed forces to record the use or abandonment of explosive ordnance during a conflict and, subject to the parties' legitimate security interests, the information is to be transferred either bilaterally or via a third party to the party in control of the contaminated territory. Such information can facilitate costly and time-consuming clearance operations and protect civilians. The Protocol also includes provisions on risk education, victim assistance, cooperation and support, and the management of munitions.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/convarms/clustermunitions/>

Cluster Munition Coalition

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

Cluster Munition Monitor

<http://www.the-monitor.org/en-gb/our-research/cluster-munition-monitor.aspx>

12

New and Emerging Weapons Technologies

“Ensuring human dignity and human security must be the guiding principle in our dialogue in the space where international security and technologies intersect.”

IZUMI NAKAMITSU
United Nations Under-Secretary-General
and High Representative for Disarmament Affairs

RAPID ADVANCES in the cybersphere and in cyberweaponry and developments in the fields of artificial intelligence and automation in weaponry (for example, drones and fully autonomous weapons) present challenges to international security and the existing disarmament machinery. The United Nations is engaged in work at multiple levels to address the implications of these new technologies.

Cyberspace and Cybersecurity

INFORMATION AND COMMUNICATIONS TECHNOLOGIES (ICTs) have become part of daily life. Governments, academic institutions, civil society groups, businesses and individuals are increasingly dependent on the Internet to provide vital services, communicate and conduct business, as well as for entertainment and countless other activities.

The Internet has facilitated globalization and can drive innovation and efficiency. It provides immense opportunities for social and economic development, and can facilitate trade and the exchange of information.

But as our societies become increasingly dependent on the Internet, we also become increasingly vulnerable to malicious attacks in cyberspace.

According to Lewis and Neuneck, cyberattacks—“unauthorized penetration of computers or digital networks”—are becoming more frequent and more complex. Added to this, new vulnerabilities are created by the many devices that are now connected to the Internet, from smartphones to cars to refrigerators.

As a result, ICT-enabled infrastructure can be compromised and services, like the provision of electricity or mobile communications, can be disrupted on a massive scale.

Attacks on electrical and mobile communications grids in Estonia in 2007 and in the Ukraine in 2015 showed the potential of cyberattacks as “disruptive tools in future warfare”.

Personal data and business and State secrets are vulnerable to theft. Recently, cyberattacks and the spread of misinformation have been used with political consequences.

In addition, the use of cyberspace for terrorist purposes, including for terrorist attacks, is an increasing possibility, according to a United Nations Group of Governmental Experts (GGE) ([A/70/174](#)).

Many States are developing ICT capabilities for military purposes, and the use of such technology in future conflicts

between States is becoming more likely. Experts also warn of increasing numbers of State-sponsored cyberattacks targeting Governments and industry.

One such example was the Stuxnet worm, which was engineered primarily to attack Iranian uranium enrichment facilities. Stuxnet, which was discovered in 2010, “demonstrated for the first time that states can manipulate the industrial infrastructure of other states via malicious cyber tools”.

The dramatic increase in incidents involving the malicious use of ICTs poses risks for international peace and security.

The Future of Cybersecurity

CYBERSECURITY HAS BEEN ON THE UNITED NATIONS AGENDA since 1998 when the Russian Federation first proposed a draft resolution on the topic in the First Committee of the United Nations General Assembly. It was adopted without a vote as resolution [53/70](#). At the time, only a few States had national cybersecurity programmes. In contrast, today more than half of all United Nations Member States have national efforts to secure networks and respond to cyberthreats (Lewis and Neuneck).

The General Assembly has since taken up the issue in annual resolutions and has established five GGEs—in 2004 (did not agree on a substantive report), 2009/2010 ([A/65/201](#)), 2012/2013 ([A/68/98](#)), 2014/2015 ([A/70/174](#)) and 2016/2017 (did not agree on a substantive report)—to examine developments in ICTs and their implications for international security.

The 2012/2013 Group agreed that international law was applicable and was essential to maintaining peace and stability and promoting an open, secure, peaceful and accessible ICT environment, and that State sovereignty and international norms and principles that flowed from sovereignty applied to State conduct of ICT-related activities and to their jurisdiction over ICT infrastructure within their territory.

The report also stated that security of ICTs must go hand-in-hand with respect for human rights and fundamental freedoms set forth in the Universal Declaration of Human Rights and other international instruments.

The 2014/2015 GGE reiterated many earlier recommendations and that international law, in particular the Charter of the United Nations, was applicable to the use of ICTs by States.

It also asserted:

In their use of ICTs, States must observe, among other principles of international law, State sovereignty, sovereign equality, the settlement of disputes by peaceful means and non-intervention in the internal affairs of other States. Existing obligations under international law are applicable to State use of ICTs. States must comply with their obligations under international law to respect human rights and fundamental freedoms. (A/70/174, para. 28b)

Resolution 70/237 adopted by the General Assembly in 2015 called upon United Nations Member States to be guided in their use of ICTs by the 2015 report of the Group of Governmental Experts.

Unmanned Aerial Vehicles

UNMANNED AERIAL VEHICLES, or drones, are aircraft intended to operate with no pilot on board, whether remotely piloted (as is now the case) or without pilot intervention. All armed drones currently in existence are remotely piloted (see next section for autonomous weapons systems). According to the New America Foundation, at least nine countries have used armed drones in combat (Azerbaijan, Iran, Iraq, Israel, Nigeria, Pakistan, Turkey, the United Kingdom and the United States); dozens more operate drones for other military, civil or commercial use (United Nations Human Rights Council (UNHRC)).

According to non-governmental sources, several non-State actors have acquired armed drones, including Hamas,

Hezbollah, Islamic State in Iraq and the Levant and Houthi rebels in Yemen. Other non-State actors have used unarmed drones for surveillance.

Drones can be used to conduct surveillance over potential targets for long periods of time and to carry out attacks with a high degree of precision, all while the operators are hundreds or even thousands of miles away.

Unmanned aerial vehicles are not a new technology. The United States began trying to develop such vehicles during World War I and again during World War II. It was not until the 1990s that the United States Air Force began working to arm drones.

Because of the secrecy surrounding many uses of armed drones, it is impossible to know with any certainty both the number of drone strikes that have happened and the number of casualties that have resulted, although civil society organizations (using publicly available sources) estimate there have been tens of thousands of strikes and thousands of civilian casualties in the past decade (Airwars; Purkiss and Serle).

The use of armed drones poses a number of challenges. Drones, by lowering the risk to one's own armed forces, may encourage the use of force and enable new forms of low-intensity conflict. They may also facilitate an increased number of attacks in civilian areas. They are also often used in situations where it is difficult to determine whether or not the user is complying with applicable humanitarian and human rights law. Drones can cause not only physical harm, but also psychological trauma to those who are under constant surveillance and threat of attack.

Reports from the RAND Corporation, the Cato Institute and scholars at Stanford and New York University raise the possibility that not only do drone strikes cause "considerable and under-accounted-for harm", there are also serious concerns about the broader consequences of their use, which may have fuelled resentment and facilitated recruitment to violent non-State groups. (Jones and Libicki; Cortright; International Human Rights and Conflict Resolution Clinic and Global Justice Clinic)

In addition, drone technology is spreading rapidly and could become increasingly available to non-State actors, providing an inexpensive way to attack with precision and lower risk to the belligerent party.

Various international regimes apply to the trade in armed drones. The Arms Trade Treaty requires exporters to refrain from transfers that could be used to violate international humanitarian or human rights law. The Missile Technology Control Regime aims to restrict the proliferation of drones capable of delivering weapons of mass destruction. Security Council resolution [1540 \(2014\)](#) requires all States (among other things) to prevent non-State actors from acquiring armed drones specifically designed to carry weapons of mass destruction.

ANY USE OF FORCE, INCLUDING THE USE OF DRONES, is governed by international humanitarian law (applicable in the context of armed conflict) and by international human rights law.

International humanitarian law protects civilians from the effects of armed conflict. For example, it prohibits the use of weapons and tactics that are incapable of distinguishing between combatants and non-combatants, or that cause superfluous injury or unnecessary suffering. Under what is known as the rule of proportionality, the incidental loss of civilian life and property must not be excessive in relation to the military advantage anticipated from an attack.

Under stricter international human rights law, any use of lethal force must be proportionate (that is, strictly required to protect an imminent loss of life) and necessary (there must be no other means of preventing a threat to life). Under international law, States are also prohibited from using force in the territory of another State without the consent of the second State, or unless the first State is acting in self-defence in response to an armed attack. International human rights law also requires an investigation when death, serious injury or other grave consequences result from the use of force.

The use of armed drones to conduct targeted strikes has raised particular concerns relating to the application of

international humanitarian law and international human rights law. When used in remote areas and far from the front lines of a conflict, there is not always sufficient clarity to determine whether or not the individuals targeted should be considered combatants or civilians at the time of the attack. Such use is especially problematic in situations where there is no recognized armed conflict. In this context, as Christof Heyns (the Special Rapporteur on extrajudicial, summary or arbitrary executions) further explains, under human rights law, “a targeted killing in the sense of an intentional, premeditated and deliberate killing by law enforcement officials cannot be legal because, unlike in armed conflict, it is never permissible for killing to be the *sole objective* of an operation” (UNHRC).

Due to these concerns, there have been increasing calls in recent years for international measures to increase transparency, oversight and accountability over armed drones. Such measures could help respond to various challenges. Is the loss of civilian life proportionate or is it excessive in relation to the military advantage gained? On a more basic level, there is the question of which legal framework is applicable in any given situation, given the lack of transparency of many States regarding who their targets are and how they are chosen. Investigations, when they have been conducted, have also been hampered by a lack of transparency. In addition, there is the question of whether targeted killings outside one’s own territory are being conducted legally.

Lethal Autonomous Weapons Systems

MANY OF THE NEWEST ADVANCES IN WEAPONRY involve artificial intelligence, robotics and automation. A number of countries with advanced military capabilities are planning and building semi-autonomous and autonomous weapons that utilize artificial intelligence to make decisions. Some of these weapons are already changing the face of warfare.

A number of States are exploring technologies that could give great or total combat autonomy to machines. Lethal autonomous weapons systems (LAWS), sometimes called

“killer robots”, would choose and fire on targets without human intervention. Systems with varying degrees of autonomy are already deployed in limited environments by a small number of States.

There are currently no multilateral standards or regulations specifically covering LAWS or any other possible military applications of artificial intelligence.

Fully autonomous weapons may offer a number of military advantages, including keeping one’s own soldiers out of harm’s way, multiplying the power of troops and doing dangerous and/or repetitive work in conditions humans cannot withstand. They could also be used for humanitarian purposes and could make combat less lethal because of their precision and ability to immobilize or disarm targets.

But such weapons pose distinct challenges. They would arguably strain existing legal frameworks, particularly with regard to attribution. As with drones, LAWS may lower the threshold for the use of force. High Representative for Disarmament Affairs Izumi Nakamitsu has also asserted that LAWS pose a “distinct proliferation challenge” and could be sought by “unscrupulous actors with malicious intent”. They may also have the ability to inflict massive casualties at only a fraction of the cost of current military arsenals.

Such technology also has limitations. Can such weapon systems make decisions and value judgements? Can they distinguish between legal and illegal orders? In the chaos of conflict, machines may not have the capacity to consider the context or employ common sense. Networked machines are also vulnerable to hacking and malfunction.

Fully autonomous weapons raise “far-reaching concerns about the protection of life during war and peace”, according to Heyns (UNHRC). Can such weapons comply with international humanitarian law and international human rights law? Heyns posits that fully autonomous weapons may be “unacceptable because no adequate system of legal accountability can be devised and because robots should not have the power of life and death over human beings”. Who can be held responsible for the actions of machines? Commanders? Programmers?

The State? Heyns asserts, "If the nature of a weapon renders responsibility for its consequences impossible, its use should be considered unethical and unlawful."

The next steps of the global community regarding fully autonomous weapons will be crucial. Transparency and cooperation will be vital if effective regulatory policies and procedures are to be developed.

To this end, a multilateral Group of Governmental Experts is scheduled to meet in November 2017 to discuss the issue of autonomous weapons under the auspices of the Convention on Certain Conventional Weapons (which bans or restricts the use of weapons that cause unnecessary or unjustifiable suffering to combatants or affect civilians indiscriminately). The Group is expected to take up ethical, humanitarian, security and legal considerations.

For More Information

United Nations Office for Disarmament Affairs

<https://www.un.org/disarmament/topics/informationsecurity/>

<https://www.un.org/disarmament/publications/more/drones-study/> (*Study on Armed Unmanned Aerial Vehicles*)

<https://www.un.org/disarmament/geneva/ccw/background-on-lethal-autonomous-weapons-systems/> (Background on Lethal Autonomous Weapons Systems)

United Nations Institute for Disarmament Research

<http://www.unidir.org/est-cyber>

<http://www.unidir.org/programmes/emerging-security-issues/the-weaponization-of-increasingly-autonomous-technologies-phase-iii> (The Weaponization of Increasingly Autonomous Technologies)

Campaign to Stop Killer Robots

<https://www.stopkillerrobots.org/>

EastWest Institute

<https://www.eastwest.ngo/pillars/global-cooperation-cyberspace>

ICT4Peace

<http://ict4peace.org/>

New America

<https://www.newamerica.org/cybersecurity-initiative/>

PAX

<https://www.paxforpeace.nl/our-work/programmes/drones>

Reaching Critical Will

<http://www.reachingcriticalwill.org/resources/fact-sheets/critical-issues/7972-fully-autonomous-weapons>

Stimson Center

<https://www.stimson.org/programs/drones>

13

Children and Armed Conflict

“Never have we had stronger tools to protect children from the scourge of war. The time has come to put these tools to use so that children may replace guns with pens, battlefields with schools and experience the childhood they deserve.”

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

WHILE IMPORTANT ADVANCES HAVE BEEN MADE to better protect children affected by armed conflict over the past two decades, boys and girls continue to suffer disproportionately from the effects of war. Millions of children have been killed and maimed, including in targeted attacks. Children have been recruited and used, subjected to rape and other forms of sexual violence or abducted by warring parties. Countless more have been made orphans, deprived of education and healthcare, and left with deep emotional scars.

Children caught in armed conflict often carry the brunt of violence engulfing them. Mental and physical trauma suffered by the thousands of children who are victims and perpetrators of violence in conflict situations represent a grave threat to

lasting peace and sustainable development, as cultures and cycles of violence are perpetuated.

Contemporary conflicts present a number of challenges for the protection of children, and the year 2015 saw a concerning increase in grave violations against children in a number of protracted conflict situations, including in Syria, where thousands of children have been killed; Afghanistan, which has experienced the highest number of child casualties ever recorded; Yemen, which saw a five-fold increase in child recruitment as soldiers; Somalia, which saw an upswing of over 100 incidents of killing and maiming compared to 2014; and South Sudan, where there was almost a doubling of child casualties in 2015 compared to 2014 (United Nations General Assembly and Security Council).

A recent trend in protracted conflict situations has been an increasing disrespect for international law. The humanitarian principles of distinction and proportionality require fighters to distinguish between combatants and civilians, and they prohibit civilian damage beyond the scope of military advantage. However, in today's battlefields, often little distinction is made between combatants and civilians, and children are frequently killed and injured in the course of military operations, including in crossfire attacks carried out by air and shelling.

Thousands of girls and boys continue to be recruited and used in armed conflicts every year across the globe (Office of the Special Representative of the Secretary-General for Children and Armed Conflict). Armed forces or groups may use them as soldiers or in support functions, including as cooks, porters, fighters, mine sweepers, spies or suicide bombers. The rise in suicide attacks, and the use of children to carry them out, has also endangered countless children.

There are numerous reasons why children end up fighting for parties to conflict. On the one hand, children are often abducted from their homes and schools and forced to join parties to conflict. On the other hand, poverty, illiteracy and discrimination, as well as a lack of formal education and livelihood opportunities, are some of the drivers of so-called

“voluntary” recruitment. Protection, survival, the desire for revenge or a sense of belonging due to the loss of home and family members also sometimes compel children to join armed forces or 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, the Democratic Republic of the Congo, Myanmar, Somalia, South Sudan, the Sudan and Yemen. State-allied armed groups and militias have also increasingly been used to fight in support of government forces, some of which have been recruiting children.

In times of conflict, both girls and boys are often sexually violated and girls are sometimes forced into sexual slavery. Girls suffer unique consequences as a result of sexual violence in armed conflict, including pregnancy-related complications and stigmatization and rejection by their families and communities. Girls and young women who give birth as a result of sexual violence may stay with armed groups because of family ties and dependency. In such situations, young mothers are particularly vulnerable to forced prostitution and trafficking and need special protections. When fighting is over, these girls may be stigmatized and overlooked in programmes

designed to reintegrate former combatants back into their communities.

Attacks on schools during armed conflict have become more prevalent, linked especially to increased attacks carried out by air in densely populated areas and to the use of explosive weapons. Armed groups have particularly targeted girls' access to education.

A further trend affecting children is the enormous number of people globally who have been displaced from their homes, including through conflict, which has reached the highest level ever recorded. Over half of those displaced are under the age of 18 (Office of the United Nations High Commissioner for Refugees) and many of them are unaccompanied, which increases their vulnerability for exploitation.

Protecting Children in War

WHILE MUCH WORK REMAINS, there have been significant developments in protecting children caught in conflict situations. In the past two decades, more than 115,000 child soldiers have been released.

The Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict is close to universal ratification with more than 160 State signatories. 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.

The issue of children and armed conflict has been placed firmly on the agenda of the Security Council. 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: recruitment and use of children as soldiers; killing and maiming of children; rape and other forms of 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 conflict, leading to action plans including on the release and reintegration of child soldiers. The Council can also take direct action against perpetrators, such as by imposing travel bans, freezing assets and banning export or supply of small arms and light weapons.

IN 2014, THE “CHILDREN, NOT SOLDIERS” CAMPAIGN was launched to build a global consensus to end and prevent the recruitment and use of children by national security forces in conflict. At its launch, the campaign focused on eight countries of concern: Afghanistan, Chad, the Democratic Republic of the Congo, Myanmar, Somalia, South Sudan, the Sudan and Yemen. Since the launch of the campaign, significant progress has been made with all eight countries having signed Action Plans with the United Nations. Chad fully implemented the requirements of its Action Plan and was delisted from the annexes of the Secretary-General’s annual report in July 2014. The campaign has advanced child protection in conflict, including through the criminalization of recruitment and use of children, the release and reintegration of child soldiers, and the adoption of age assessment guidelines for military recruitment centres.

Important precedents are also being set in the fight to end the impunity of perpetrators. One prominent example is the conviction by the International Criminal Court of Thomas Lubanga Dyilo, founder and leader of the Union of Congolese Patriots, active in the Democratic Republic of the Congo. Lubanga was found guilty of the war crimes of enlisting and conscripting children under the age of 15 years and using them to participate actively in hostilities. He was sentenced to 14 years of imprisonment.

Increasingly, States, 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

Child Soldiers International
www.child-soldiers.org

Human Rights Watch
<https://www.hrw.org/topic/childrens-rights/child-soldiers>

14

Women, Peace and Security

“Equality between women and men is inextricably linked to peace and security.”

ANWARUL CHOWDHURY
High-Level Advisory Group for the Global Study
on the Implementation of United Nations
Security Council resolution 1325 (2000)

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 with regard to 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. In recognition of this fact, a number of United Nations bodies have taken steps to promote women's participation and to mainstream gender perspectives into their work.

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.

The resolution, 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 the Secretary-General to expand the role of women in United Nations peacekeeping operations.

The resolution calls on those involved in armed conflicts to respect the rights of women and girls and emphasizes the responsibility of States to prosecute those responsible for war crimes, including those relating to sexual and other violence against women and girls. Finally, it calls on all parties to consider the needs and rights of women when negotiating and implementing peace agreements and when planning for disarmament, demobilization and reintegration of ex-combatants into society.

A SERIES OF SECURITY COUNCIL RESOLUTIONS complement and strengthen resolution [1325 \(2000\)](#). Resolution [1889 \(2009\)](#) addresses obstacles to women’s participation in all stages of peace processes and calls for the United Nations Secretary-General to submit to the Security Council a set of indicators to track implementation of resolution [1325 \(2000\)](#).

Resolution [2122 \(2013\)](#) puts in place stronger measures for women to participate and lead in all phases of conflict prevention, resolution and recovery. It also encourages Member States to increase the percentage of women in United Nations peacekeeping operations and particularly calls on Member States to ensure women’s participation in efforts to combat the illicit transfer and misuse of small arms and light weapons.

Resolution [2242 \(2015\)](#) urges the Secretary-General and United Nations entities to better integrate gender perspectives

into their work. The resolution calls on the Secretary-General to double the number of women in peacekeeping operations over the next five years, and urges Member States and United Nations entities to ensure the participation and leadership of women's organizations in developing strategies to counter terrorism and violent extremism. It also encourages empowering women to participate in the design and implementation of efforts to prevent, combat and eradicate the illicit transfer and misuse of small arms and light weapons.

OTHER SECURITY COUNCIL RESOLUTIONS that follow up on resolution [1325 \(2000\)](#) specifically address sexual violence. Resolution [1820 \(2008\)](#) 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. Resolution [2106 \(2013\)](#) calls on all Member States and United Nations entities to do more to implement previous mandates, and affirms the centrality of gender equality and women's political, social and economic empowerment to prevent sexual violence in armed conflict and post-conflict situations.

THE SECURITY COUNCIL HAS ALSO ADOPTED TWO THEMATIC RESOLUTIONS ON SMALL ARMS AND LIGHT WEAPONS, resolutions [2117 \(2013\)](#) and [2220 \(2015\)](#), which, among other measures, urge Member States, United Nations entities and other organizations to facilitate women's full and meaningful participation in efforts to eradicate the illicit transfer, destabilizing accumulation and misuse of small arms and light

weapons. Resolution [2220 \(2015\)](#) also encourages Member States to strengthen the collection of sex-disaggregated data to better understand the impact of small arms and light weapons on women.



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

IN OCTOBER 2015, THE SECURITY COUNCIL HELD A HIGH-LEVEL REVIEW ON WOMEN, PEACE AND SECURITY in honour of the fifteenth anniversary of resolution [1325 \(2000\)](#). As part of the Review, a Global Study was launched on 14 October 2015. In the foreword, Phumzile Mlambo-Ngcuka, Executive Director of UN-Women, notes that the resolution was “one of the crowning achievements of the global women’s movement and one of the most inspired decisions of the United Nations Security Council”.

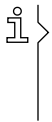
The Study highlights successes, including the adoption of a comprehensive framework regarding sexual violence in conflict. It also notes that international courts and tribunals are dealing with sexual violence in more sophisticated ways. A Special Representative on Sexual Violence in Conflict has been appointed by the Secretary-General to report to the Security Council, and monitoring and reporting on sexual violence now regularly occur for conflict situations on the Council’s agenda.

Additionally, peace agreements are now more likely to reference women and the number of senior female leaders within the United Nations, including the first female commander of a peacekeeping mission, is on the rise. Aid on gender equality to fragile States has quadrupled over the decade.

However, challenges remain. Many of the steps taken continue to be “firsts” and are not yet standard practice. In addition, there have been few prosecutions for sexual violence in conflict situations and, although women’s participation in peace processes is inching up, women still constitute less than 10 per cent of negotiators in such processes. Only 54 countries

have formulated action plans on women, peace and security, and many are without accountability measures or budgets. The rise of violent extremism also poses a severe challenge to women's lives in many parts of the world. Ultimately, notes the study, "for advocates of sustainable peace and security interlinked with development and human rights, the value of the women, peace and security agenda is its potential for transformation, rather than greater representation of women in existing paradigms of militarized response".

The Global Study makes a number of recommendations, including the following: prevention must be a priority, not the use of force; women's participation is the key to sustainable peace; perpetrators of violence against women must be held accountable; the failure to finance the women, peace and security agenda must be addressed; and the United Nations must bring a gendered perspective to all its work.



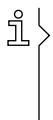
TO READ the Global Study, go to [http://www.peacewomen.org/sites/default/files/UNW-GLOBAL-STUDY-1325-2015%20\(1\).pdf](http://www.peacewomen.org/sites/default/files/UNW-GLOBAL-STUDY-1325-2015%20(1).pdf).

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. The resolution recognizes the "valuable contribution of women to practical disarmament measures ... 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, the United Nations and others "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 was the

first time that a resolution of the General Assembly's First Committee addressed the role and participation of women in disarmament.

The resolution has subsequently been updated and adopted, including at the General Assembly's seventy-first session (71/56) in 2016.



TO READ General Assembly resolutions, go to <http://www.un.org/en/sections/documents/general-assembly-resolutions/>.

Arms Trade Treaty

THE ARMS TRADE TREATY, which establishes standards to guide Governments in deciding whether or not to authorize arms transfers, is the first legally binding regime to recognize the link between gender-based violence and the global arms trade. Under the Treaty, State parties must, in the assessment that precedes its authorization of any export of conventional weapons covered by the Treaty, take into account the risk of those weapons being used to commit or facilitate serious acts of gender-based violence.

Treaty on the Prohibition of Nuclear Weapons

THE TREATY ON THE PROHIBITION OF NUCLEAR WEAPONS, the first legally binding international agreement to comprehensively prohibit nuclear weapons, acknowledges that the consequences of nuclear weapons have a disproportionate impact on women and girls. The Treaty recognizes the importance of the “equal, full and effective participation of both women and men” in achieving sustainable peace and security and states its members’ commitment to “supporting

and strengthening the effective participation of women in nuclear disarmament”.

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 enables the United Nations to better address all issues of gender equality and the empowerment of women.

United Nations Programme of Action

AT THE SIXTH BIENNIAL MEETING OF STATES to consider implementation of the Programme of Action on small arms and light weapons, held in 2016, States undertook to promote the participation of women in Programme of Action processes; encourage the collection of disaggregated data on gender and illicit small arms and light weapons; and seriously consider increasing funding for policies and programmes that take account of the differing impacts of illicit small arms and light weapons on women, men, boys and girls.

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.

For More Information

United Nations Office for Disarmament Affairs

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

UN-Women

www.unwomen.org

www.womenwarpeace.org/

Arias Foundation for Peace and Human Progress

www.arias.or.cr

Centro de Educacion e Investigacion para la Paz

www.ceipaz.org

NGO Working Group on Women, Peace and Security

www.womenpeacesecurity.org

Reaching Critical Will

<http://reachingcriticalwill.org/resources/fact-sheets/critical-issues/4741-gender-and-disarmament>

15

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 some of the 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).
- › **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.** The 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.** The General Assembly first identifies the goal of “general and complete disarmament under effective international control”.
- › **1978.** The General Assembly holds the first special session devoted to disarmament, declaring “enduring international peace and security cannot be built on the accumulation of weaponry by military alliances nor be sustained by a precarious balance of deterrence or doctrines of strategic superiority” (resolution [S-10/2](#)).
- › **1982.** The General Assembly holds the second special session devoted to disarmament.
- › **1988.** The General Assembly holds the third special session devoted to disarmament.
- › **1995.** The General Assembly calls for a fourth special session on disarmament (and subsequently established working groups in 2003, 2007 and 2016 to discuss a possible agenda).



To READ the United Nations Charter, go to <http://www.un.org/en/charter-united-nations/>.

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.

Below are some dates when disarmament and related treaties were addressed by the General Assembly:

- › **2 June 1968.** The General Assembly adopts resolution [2373 \(XXII\)](#), by which it commends the Treaty on the Non-Proliferation of Nuclear Weapons.
- › **16 December 1971.** The General Assembly adopts resolution [2826 \(XXVI\)](#), by which it commends the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons on Their Destruction (Biological Weapons Convention).
- › **10 October 1980.** A negotiating conference mandated by General Assembly resolutions [32/152](#) and [33/70](#) adopts 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.
- › **30 November 1992.** The General Assembly adopts resolution [47/39](#), by which it commends the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Chemical Weapons Convention).
- › **10 September 1996.** The General Assembly adopts the Comprehensive Nuclear-Test-Ban Treaty through resolution [50/245](#).
- › **9 December 1997.** The General Assembly adopts resolution [52/38](#), by which it welcomes the conclusion of the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (Anti-Personnel Mine Ban Convention).

- › **2 April 2013.** The General Assembly adopts the Arms Trade Treaty through resolution [67/234 B](#).
- › **7 December 2015.** The General Assembly adopts resolution [70/54](#), by which it urges all States outside the Convention on Cluster Munitions to join as soon as possible.
- › **7 July 2017.** A negotiating conference mandated by General Assembly resolution [71/258](#) adopts the Treaty on the Prohibition of Nuclear Weapons.

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 2017, 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 Committee (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 (<https://www.un.org/disarmament/general-assembly/>).

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/en/sc) or visit Security Council Report (www.securitycouncilreport.org).

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 April). It considers a few chosen topics in three-year cycles and reports annually to the General Assembly.



TO LEARN MORE, go to the websites of the Disarmament Commission (www.un.org/depts/ddar/discomm/undc.html) or the United Nations Office for Disarmament Affairs (<https://www.un.org/disarmament/institutions/disarmament-commission/>).

Conference on Disarmament

THE CONFERENCE ON DISARMAMENT is the sole multilateral body for negotiating disarmament treaties. It has 65 permanent members which meet in Geneva in three sessions

each year (generally, January to March, May to June and August to September). It operates on the basis of consensus to ensure full support for agreements that are concluded. Its past accomplishments include the Biological 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/cd).

Special Sessions of the General Assembly Devoted to Disarmament (SSOD)

THERE HAVE BEEN THREE SPECIAL SESSIONS of the General Assembly devoted to disarmament (SSOD) convened since the United Nations' establishment. SSOD-I was held in 1978 and established the current United Nations disarmament machinery, including the Conference on Disarmament and the United Nations Disarmament Commission. The special session has been traditionally hailed as a landmark success as it was able to adopt a consensus outcome document that addressed the full range of disarmament and international security matters. A second and third SSOD were held in 1983 and 1988, respectively, although neither was able to reach a comprehensive, substantive outcome. SSOD-II did, however, launch the World Disarmament Campaign, which enhanced the role of the United Nations in providing public information on disarmament and in disarmament education. SSOD-III adopted an outcome document that addressed only procedural matters.

Despite the mixed success of SSOD-II and SSOD-III, the special session formulation offers a unique chance to consider not just specific weapon categories, but broad themes of relevance to disarmament, including trends, developments and new challenges. It allows the international community to assess disarmament in the context of the United Nations'

long-standing objective of general and complete disarmament under effective international control.

In this regard, the convening of a fourth special session of the General Assembly devoted to disarmament (SSOD-IV) has been on the agenda of the Assembly since 1994 and the subject of many resolutions and decisions.

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; encourages regional disarmament efforts; and provides information, outreach and education on United Nations disarmament efforts.



TO LEARN MORE, go to the UNODA 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**

<http://unrcpd.org>

**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 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 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.

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 the Treaty's signatory States.



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

16

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

United Nations Secretary-General (2007-2016)

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, such as nuclear disarmament, regulation of the global arms trade and banning fissile materials.

Think you can't make a difference? Think again. Ordinary, dedicated people make a difference every day. In fact, the treaties banning landmines, cluster munitions and nuclear weapons 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.



TO LEARN MORE about how to get involved, see *Action for Disarmament: 10 Things You Can Do!* (www.un.org/disarmament/publications/more/action-for-disarmament)

Action on Armed Violence

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

The website offers information on armed violence and development, with a specific focus on the impact of explosive weapons in populated areas.

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 weapons and weapons of mass destruction, 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 nuclear weapons, the North Atlantic Treaty Organization, arms control treaties and more. In 2015, BASIC launched the Next Generation project to inspire the next generation to think differently about nuclear weapons.

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.

Center for Arms Control and Non-Proliferation

www.armscontrolcenter.org

The website offers information on biological, chemical and nuclear weapons, missile defence, Iran, North Korea and the Russian Federation. Comprehensive policy analysis is also available.

Center for Strategic and International Studies

www.csis.org

CSIS is a think tank focusing on international security with programmes on missile defence, nuclear issues, defence budget analysis, regional issues and more.

Child Soldiers International

www.child-soldiers.org

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

Cluster Munition Coalition

www.stopclustermunitions.org

Read about the international campaign to ban cluster munitions, working in support of the Convention on Cluster Munitions and access the Cluster Munition Monitor.

Control Arms Campaign

www.controlarms.org

The campaign works to support and ensure the efficacy of the Arms Trade Treaty (ATT). Join the campaign, read the ATT Monitor, follow them on Facebook and Twitter, read their blog and more.

Federation of American Scientists

www.fas.org

The website contains in-depth, science-based information and analysis on biological, chemical and nuclear weapons, energy, the environment and more.

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 conventional weapons and weapons of mass destruction, space security, environmental security, food security and regional security in Asia and the Middle East and more.

International Action Network on Small Arms

www.iansa.org

Read about armed violence and development, children and armed violence, national gun laws, women, gender and guns, the United Nations and more. Join the Global Week of Action.

International Campaign to Abolish Nuclear Weapons

www.icanw.org

ICAN, a coalition of non-governmental organizations, was instrumental in the Humanitarian Initiative that

resulted in the passage of the Treaty on the Prohibition of Nuclear Weapons and works to promote adherence and implementation of the Treaty. The website has resources on the effects of nuclear weapons on health and the environment.

International Campaign to Ban Landmines

www.icbl.org

ICBL is a global network active in some 100 countries working for a world free of antipersonnel landmines. It was instrumental in the development and passage of the Anti-Personnel Mine Ban Convention.

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 material cut-off treaty (FMCT), the proposed text of an FMCT and the annual Global Fissile Material Report.

International Physicians for the Prevention of Nuclear War

www.ippnw.org

IPPNW describes and documents the medical and humanitarian consequences of nuclear-weapon explosions and runs the Aiming for Prevention campaign to address armed violence from a public health perspective.

James Martin Center for Nonproliferation Studies, Middlebury Institute of International Studies at Monterey

<http://cns.miis.edu>

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

Nuclear Threat Initiative

www.nti.org

Find information about global nuclear policy, nuclear terrorism, cybersecurity, biosecurity and radiological weapons.

Reaching Critical Will

Project of Women's International League for Peace and Freedom

www.reachingcriticalwill.org

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 sessions of the preparatory committees and review conferences of the Treaty on the Non-Proliferation of Nuclear Weapons), *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-portable air defence systems, 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, and databases on arms transfers, military expenditures and more. 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 Institute for Disarmament Research

www.unidir.org

In-depth information about weapons of mass destruction, emerging security issues, conventional weapons, disarmament machinery and security and society are available.

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.

Verification Research, Training and Information Centre

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.

DISARMAMENT: A BASIC GUIDE can be found online at <https://www.un.org/disarmament/publications/basic-guide/>.

Appendix 1



Arms Control and Disarmament Treaties and Related Instruments

| | Dates of entry into force |
|--|--|
| African Nuclear-Weapons-Free Zone Treaty (Pelindaba Treaty) | 2009 |
| Agreed Framework (United States and Democratic People's Republic of Korea) | 1994 |
| Agreement Governing the Activities of States on the Moon and Other Celestial Bodies | 1984 |
| Antarctic Treaty | 1961 |
| Anti-Ballistic Missile Treaty (United States and former Soviet Union) | 1972 (United States withdrew in 2001) |
| Anti-Personnel Mine Ban Convention | 1999 |
| Arms Trade Treaty | 2014 |
| Biological Weapons Convention | 1975 |

| | Dates of entry into force |
|---|----------------------------|
| Central African Convention for the Control of Small Arms and Light Weapons, Their Ammunition and All Parts and Components That Can Be Used for Their Manufacture, Repair and Assembly (Kinshasa Convention) | 2017 |
| Chemical Weapons Convention | 1997 |
| Comprehensive Nuclear-Test-Ban Treaty | Not yet entered into force |
| Convention on Cluster Munitions | 2010 |
| 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 |
| Convention on the Physical Protection of Nuclear Material | 1987 |
| Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques | 1978 |
| Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials | 1998 |
| Inter-American Convention on Transparency in Conventional Weapons Acquisitions | 2002 |
| 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 |
| International Convention for the Suppression of Acts of Nuclear Terrorism | 2007 |

| | Dates of entry into force |
|--|---------------------------------|
| Joint Comprehensive Plan of Action (China, France, Germany, Iran, Russian Federation, United Kingdom and United States, as well as the European Union) | 2015 |
| Missile Technology Control Regime | 1993 |
| Outer Space Treaty | 1967 |
| Partial Test Ban Treaty | 1963 |
| Peaceful Nuclear Explosions Treaty (United States and former Soviet Union) | 1976 |
| Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare | 1928 |
| 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) | 1969-1972 |
| Strategic Arms Limitation Treaty (SALT II) (United States and former Soviet Union) | Did not enter into force |
| 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 |
| Strategic Offensive Reductions Treaty (SORT) (United States and former Soviet Union) | 2002 |

| | Dates of entry into force |
|--|----------------------------|
| Threshold Test Ban Treaty (United States and former Soviet Union) | 1990 |
| Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco) | 1969 |
| Treaty on a Central Asian Nuclear-Weapon-Free Zone | 2009 |
| Treaty on Conventional Armed Forces in Europe | 1992 |
| Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START) (Russian Federation and United States) | 2011 |
| Treaty on Open Skies | 2002 |
| Treaty on the Non-Proliferation of Nuclear Weapons | 1970 |
| Treaty on the Prohibition of Nuclear Weapons | Not yet entered into force |

NOTE: All information is current as of August 2017. Treaties are multilateral unless indicated.



TO LEARN MORE and to find the adherence status and full texts of the treaties, including relevant amendments and protocols, go to <http://disarmament.un.org/treaties/>, <https://treaties.un.org> and <https://www.armscontrol.org/treaties>.

Appendix 2



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