

CATASTROPHIC  
HUMANITARIAN  
**HARM**





**WARNING**  
Some images may disturb.

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International Campaign to Abolish  
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Prevention of Nuclear War



**PEACE  
BOAT**

# Reframing the nuclear weapons debate

**The catastrophic effects of nuclear weapons on our health, societies and the environment must be at the centre of all discussions about nuclear disarmament and non-proliferation.**

**A**bolishing nuclear weapons is a paramount challenge for people and governments the world over – a pre-condition for survival, sustainability and the health of our planet and future generations. Both in the scale of the indiscriminate devastation they cause, and in their uniquely persistent, spreading, genetically damaging radioactive fallout, nuclear weapons are unlike any other weapons. A single nuclear bomb detonated over a large city could kill millions of people in an instant. The use of tens or hundreds of nuclear bombs would disrupt the global climate, causing widespread famine.

## **A HUMANITARIAN APPROACH**

Although the number of nuclear weapons in global stockpiles is declining, the risk of their use, by accident or design, appears to be growing. Any such use would have catastrophic humanitarian consequences. Despite new rhetoric in favour of achieving a world without nuclear weapons, governments have not yet begun negotiations on a global nuclear disarmament treaty. The International Campaign to Abolish Nuclear Weapons (ICAN), a movement of non-government organizations in 60 countries advocating such a treaty, believes that discussions



about nuclear weapons must focus not on narrow concepts of national security, but on the effects of these weapons on human beings – our health, our societies, and the environment on which we all depend. The processes that led to treaties banning landmines in 1997 and cluster munitions in 2008 demonstrated the importance of adopting a humanitarian-based discourse: new political coalitions were formed, longstanding deadlocks were broken, and two whole classes of weapons were outlawed. Today we must adopt a similar approach for nuclear weapons.

## A unique existential threat to humanity

The effects of nuclear weapons cannot be controlled in space or time. Their existence anywhere is a threat to people everywhere.

Nuclear weapons are the most destructive, inhumane and indiscriminate instruments of mass murder ever created. The term “catastrophic humanitarian consequences” – now commonly used by governments – describes their unique and horrifying effects on people, including lethal harm to those who are not part of the conflicts in which they are used. Physicians and scientists have long studied and documented the medical consequences of nuclear war, concluding that human security and survival depend upon ridding the Earth of these indefensible weapons.

### NUCLEAR WEAPONS USE

Nuclear weapons have been used twice in warfare – on the Japanese cities of Hiroshima and Nagasaki in 1945. More than 200,000 innocent civilians died, while many more suffered acute injuries. Even if a nuclear weapon were never again exploded over a city, there are effects from the production, testing and deployment of nuclear arsenals that are experienced as an ongoing personal and community catastrophe by many people around the globe. This must inform and motivate efforts to eliminate these weapons.

### NUCLEAR ARSENALS

The dangers of nuclear weapons arise from their very existence. Nine countries today possess an estimated 19,000 nuclear weapons, around 2,000 of which are kept on hair-trigger alert – ready for use within minutes. Most of today’s nuclear weapons are dozens of times more powerful than the Hiroshima bomb. The failure of the nuclear powers to disarm has heightened the risk that other countries, or terrorists, will one day acquire nuclear weapons. The only guarantee against their spread and use is to eliminate them without delay.



### NUCLEAR FORCES IN 2012

Country	Warheads
United States	8,000
Russia	10,000
United Kingdom	225
France	300
China	240
India	80–100
Pakistan	90–110
Israel	80
North Korea	<10
<b>Total</b>	<b>~19,000</b>

Source: FAS

“The conference expresses its deep concern at the catastrophic humanitarian consequences of any use of nuclear weapons.”

Final Document, **Non-Proliferation Treaty Review Conference**, 2010



**Mushroom cloud:** A 37-kiloton nuclear device is exploded in Nevada. Credit: US Government



**Obliteration:** The Japanese city of Hiroshima was instantly reduced to ashes when a single US 15-kiloton nuclear bomb was detonated over it. Credit: US Government



**Burns:** Nagasaki bomb victim Sumiteru Taniguchi looks at a photo of himself taken in 1945. His horrific burns have required 17 operations. *Credit: Yuriko Nakao*

### SUMITERU TANIGUCHI'S STORY

“As a 16-year-old boy, I was riding my bicycle down the street when the atomic bomb exploded 1.8 km away, **scorching** my back and leaving the skin on my right arm hanging down from the shoulder to the **fingertips**. Most of the people around me had no one to look after them, and **passed away** while begging for water. I spent two nights up in the mountainside before a rescue squad found me on the morning of the third day and took me to a **first-aid** station some 28 km away. I went from one aid station to another until I was finally released from Omura Naval Hospital in March 1949. I

suffered such awful pain during that time that I often called out ‘Please kill me!’ as I was being treated. Among the survivors of the atomic bombing, there are those who **committed suicide** and those who died after saying they couldn’t stand yet another operation. As someone who knows about this, I feel that I have a responsibility to live my life to the very end. Sometimes it’s a struggle. I’ll keep on fighting until all nuclear weapons are banished from this Earth. To everyone who is reading this, I beg you to think of yourselves as parents building a bright future for your **descendants**.”

# Hiroshima and Nagasaki bombings

The two atomic bombs dropped on Japan in 1945 killed and maimed hundreds of thousands of people, and their effects are still being felt today.

The highly enriched uranium bomb detonated over Hiroshima on 6 August 1945 had an explosive yield equal to 15,000 tonnes of TNT. It razed and burnt around 70 per cent of all buildings and caused an estimated 140,000 deaths by the end of 1945, along with increased rates of cancer and chronic disease among the survivors. A slightly larger plutonium bomb exploded over Nagasaki three days later levelled 6.7 km<sup>2</sup> of the city and killed 74,000 people by the end of 1945. Ground temperatures reached 7,000°C and black radioactive rain poured down.

## MEDICAL RESPONSE

In Hiroshima 90 per cent of physicians and nurses were killed or injured; 42 of 45 hospitals were rendered non-functional; and 70 per cent of victims had combined injuries including, in most cases, severe burns. All the dedicated burn beds around the world would be insufficient to care for the survivors of a single nuclear bomb on any city. In Hiroshima and Nagasaki most victims died without any care to ease their suffering. Some of the people who entered the cities after the bombings to provide assistance also died from radiation-related illnesses.

## LONG-TERM EFFECTS

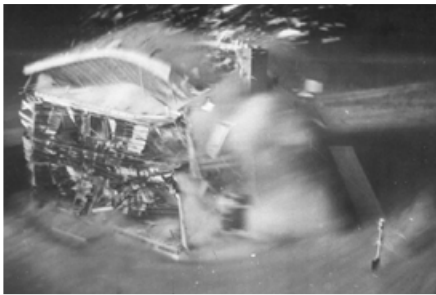
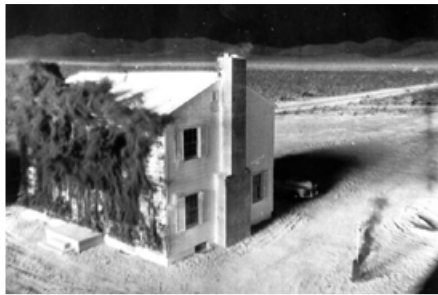
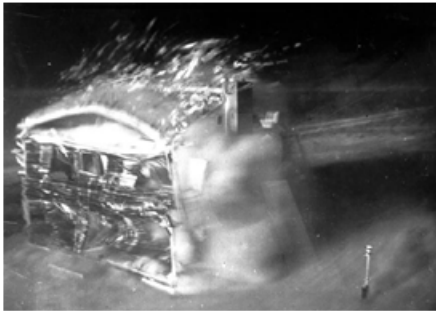
The incidence of leukaemia among survivors increased noticeably five to six years after the bombings, and about a decade later survivors began suffering from thyroid, breast, lung and other cancers at higher than normal rates. For solid cancers, the added risks related to radiation exposure continue to increase throughout the lifespan of survivors even to this day, almost seven decades after the bombings. Women exposed to the bombings while they were pregnant experienced higher rates of miscarriage and deaths among their infants. Children



### DEATHS BY END OF 1945

Hiroshima	~140,000
Nagasaki	~74,000

exposed to radiation in their mother's womb were more likely to be mentally retarded, and have smaller brains and impaired growth, as well as increased risk of developing cancer.



**Heat and blast:** House No. 1, located 1 km from **ground zero**, is completely destroyed during a nuclear test in Nevada in 1953. The elapsed time from the first picture to the last is two seconds. *Credit: US Government*

### EFFECTS OF A 100-KT NUCLEAR BOMB

**3 km radius** A radioactive fireball hotter than the Sun and with the force of 100,000 tonnes of TNT kills everyone.

**5 km radius** The **vast majority** of people die quickly from blast injuries, **asphyxiation** or (over weeks) radiation sickness.

**10 km radius** About half die from **trauma** and burns. Many **succumb** soon after **to** fires and radiation sickness.

**80 km radius** Radioactive **fallout** spreads. Over time, many thousands will die from **radiation sickness** and cancers.



## Blast, heat and radiation

It takes around 10 seconds for the fireball from a nuclear explosion to reach its maximum size, but the effects **last for** decades.

**N**uclear weapons are unique in their destructive power and the threat they pose to the environment and human survival. They release vast amounts of energy in the form of blast, heat and radiation.

### BLAST

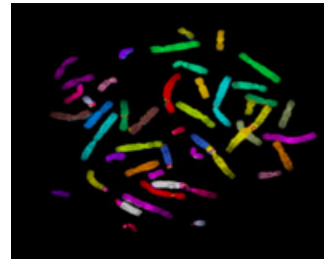
A nuclear explosion creates an **enormous shockwave** that reaches speeds of many hundreds of kilometres an hour. The blast kills people close to ground zero, and causes lung injuries, ear damage and **internal bleeding** further away. People **sustain** injuries from collapsing buildings and flying objects.

### HEAT

**Thermal radiation** from the explosion is so **intense** that almost everything close to ground zero is **vaporized**. The extreme heat causes severe burns and **ignites** fires over a large area, which **coalesce** into a giant firestorm. Even people in underground shelters face likely death due to a lack of oxygen and **carbon monoxide poisoning**.

### RADIATION

Unlike **conventional weapons**, nuclear weapons release **ionizing radiation**; particles and rays given off by radioactive materials. At high **doses**, radiation kills cells,



**Genes:** Chromosomal damage in a nuclear test veteran. *Credit: R. Rowland*

damages **organs** and causes rapid death. At low doses, it can damage cells and lead to cancer, **genetic** damage and **mutations**. In human beings, it causes most types of leukaemia, or blood cancer, as well as solid

cancers such as thyroid, lung and breast cancers. Increased rates of leukaemia and thyroid cancer among exposed children begin to appear after five years, while the incidence of most solid cancers rises after about 10 years, with the increased risk persisting throughout one's life. Radiation exposure can also heighten the risk of **hereditary** effects in future generations. **Radiation exposure** can occur **externally** (from particles in the air, water and soil) or **internally** (from breathing, eating and drinking). Many **radioisotopes** are **concentrated** in plants and animals, and thus **the food chain**.

## Climate disruption and nuclear famine

A regional nuclear war involving as few as 100 Hiroshima-sized weapons would disrupt the global climate and put a billion people at risk of famine.

Nuclear weapons are the only devices ever created with the capacity to destroy all complex life forms on Earth within a relatively short period. A war fought using 1,000 nuclear weapons – around 5 per cent of the total global stockpile – would render the planet uninhabitable.

### REGIONAL NUCLEAR WAR

In addition to causing tens of millions of immediate deaths, a regional nuclear war involving around 100 Hiroshima-sized weapons would disrupt the global climate and agricultural production so severely that more than a billion people

would be at risk of famine, according to recent research by the International Physicians for the Prevention of Nuclear War. Although it would not result in the extinction of the human race, it would bring about an end to modern civilization as we know it. Even the relatively small nuclear arsenals of countries such as India and Pakistan could cause long-lasting global damage to the Earth's ecosystems.

### AGRICULTURAL COLLAPSE

The smoke and dust from a limited nuclear war would cause an abrupt drop in global temperatures and rainfall by

blocking up to 10 per cent of sunlight from reaching the Earth's surface. Sudden global cooling would shorten growing seasons, threatening agriculture worldwide. Increases in food prices would make food inaccessible to hundreds of millions of the poorest people in the world. For those who are already chronically malnourished, just a 10 per cent decline in food consumption would result in starvation. Infectious disease epidemics and conflict over scarce resources would be rife. If the entire global nuclear arsenal were used, 150 million tonnes of smoke would

be emitted into the stratosphere, resulting in a 45 per cent global reduction in rainfall and average surface cooling of  $-7$  to  $-8^{\circ}\text{C}$ . By comparison, the global average cooling at the depth of the last ice age more than 18,000 years ago was  $-5^{\circ}\text{C}$ .

### OZONE DEPLETION

A nuclear war would cause prolonged and severe depletion of the ozone layer and have a devastating impact on human and animal health. Substantial increases in ultraviolet radiation would cause increases in skin cancer rates, crop damage and the destruction of marine life.

“Climate change may be the global policy issue that has captured most attention in the last decade, but the problem of nuclear weapons is at least its equal in terms of gravity – and much more immediate in its potential impact.”

International Commission on Nuclear Non-Proliferation and Disarmament, 2009



**Famine:** Somali men carry a severely malnourished child to hospital. The use of 100 nuclear weapons would put a billion people at risk of famine. Credit: UN Photo/Stuart Price



**Crop failure:** A regional nuclear war would result in agricultural collapse over a wide area. Credit: UN Photo/Martine Perret



“We witnessed a sight totally unlike anything we had ever seen before. The centre of the city was sort of a white patch, flattened and smooth like the palm of a hand. Nothing remained. Every living thing was petrified in an attitude of acute pain.”

**Dr Marcel Junod, International Committee of the Red Cross, Hiroshima, September 1945**

**Total devastation:** A mother and her son in Hiroshima four months after the atomic bombing. *Credit: Alfred Eisenstaedt*

## The radioactive incineration of cities

The death toll from a nuclear attack against a large city today could be measured in the millions rather than the tens or hundreds of thousands.

Scientists have modelled the catastrophic humanitarian consequences of nuclear strikes against various urban centres. In a city like Mumbai, India, with population densities in some areas of 100,000 people per square kilometre, a Hiroshima-sized bomb is estimated to cause up to 870,000 deaths in the first weeks. A 1-megaton bomb could promptly kill several million.

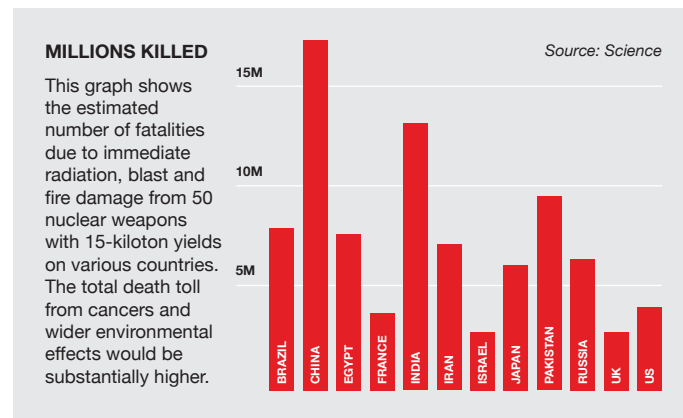
### TERRORIST SCENARIO

A 12.5-kiloton nuclear explosion in a New York shipping yard would produce casualties more than one order of magnitude greater than those inflicted in the

September 11 terrorist attacks. Blast and thermal effects would kill 52,000 people immediately. Another 238,000 would be exposed to direct radiation from the blast. Fallout would expose a further million and a half people. In total, more than 200,000 would die.

### FULL-SCALE NUCLEAR WAR

The effects of a war involving many nuclear explosions would be on a scale larger than anything previously experienced in human history. If 500 warheads were to hit major US and Russian cities, 100 million people would die in the first half



an hour and tens of millions would be fatally injured. Huge swaths of both countries would be blanketed by radioactive

fallout. Most Americans and Russians would die in the following months from radiation sickness and disease epidemics.



**Nevada:** Judith Vollmer, poet and teacher, has come to Sedan Crater on the Nevada Test Site to better understand the loss of her father to radiation-related illnesses. *Credit: Lynn Johnson*



**Utah:** Dave Timothy, a “down winder”, believes his multiple thyroid cancers were caused by the radiation from atomic tests that rained down on his boyhood home in Utah. *Credit: Lynn Johnson*



**Semipalatinsk:** A Kazakh nuclear test victim receives treatment. Between 1949 and 1991, 456 Soviet nuclear tests were conducted at Semipalatinsk.  
*Credit: Jonathan Silvers/Saybrook Productions Ltd*

**Refugees:** Libyan refugees line up for food near the border with Tunisia. A nuclear attack would potentially displace millions of people. *Credit: OCHA/David Ohana*

## WORLD HEALTH ORGANIZATION

“Nuclear weapons constitute the greatest immediate threat to the health and welfare of mankind .... It is obvious that no health service in any area of the world would be capable of dealing adequately with the hundreds of thousands of people seriously injured by blast, heat or radiation from even a single one-megaton bomb .... Whatever remained of the medical services in the world could not alleviate the disaster in any significant way .... To the immediate catastrophe must be added the long-term effects on the environment. Famine and diseases would be widespread, and social and economic systems would be totally disrupted .... Therefore the only approach to the treatment of the health effects of nuclear explosions is primary prevention of such explosions.”





## No adequate response capacity

**A nuclear attack anywhere in the world would overwhelm the health infrastructure, making an effective humanitarian response impossible.**

**N**uclear bombings eradicate the social infrastructure required for recovery from conflict. Communications and transportation systems, fire-fighting equipment, and hospitals and pharmacies would all lie in rubble throughout a zone of complete destruction extending for kilometres. Those attempting to provide relief to the sick or wounded would be exposed to high levels of radioactivity, risking their own lives. Nowhere in the world would it be possible to render an effective humanitarian response, underscoring the absolute imperative of nuclear abolition.

### THE RED CROSS

Consistent with the humanitarian vision of its founder Henry Dunant, the International Committee of the Red Cross first called for nuclear weapons to be banned in September 1945, just weeks after the atomic bombings of Hiroshima and Nagasaki. Since then, it has repeatedly warned that nuclear weapons will not spare hospitals, prisoner-of-war camps and civilians, and “their inevitable consequence is extermination”. In 2010 the Committee adopted the prohibition and complete elimination of nuclear weapons as one of its top priorities.

### UN AGENCIES

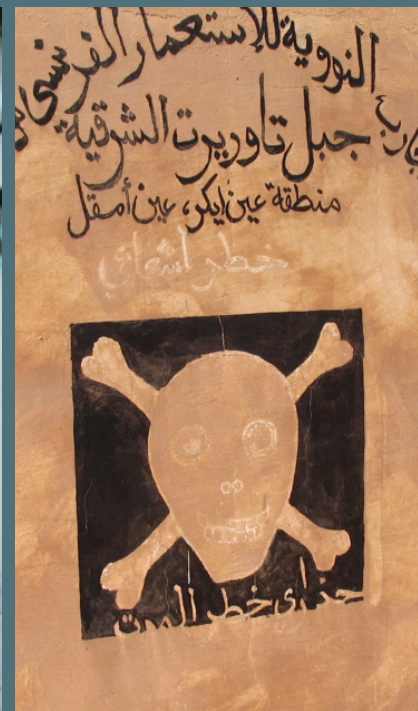
In 1984, at the height of the cold war, the World Health Organization published a definitive study on the global health repercussions of nuclear war. Its report, updated in 1987, concluded that the immediate and delayed loss of human and animal life would be enormous, and “the plight of survivors would be physically and psychologically appalling”. Nuclear disarmament is directly relevant to the work of many UN agencies, including those responsible for refugees, human rights, development, food security and the environment.



**Australia:** As a 10-year-old boy, Yami Lester was covered by a cloud of radioactive fallout from a British nuclear test conducted at Emu Junction in 1953 with the support of the Australian government. *Credit: Jessie Boylan*



**Marshall Islands:** Iroji KEBENLI, a Marshallese boy, suffered radiation burns to his skin after contact with "Bikini snow" – radioactive ash and coral fragments dispersed over the islands from US nuclear tests. *Credit: US Government*



**Algeria:** A danger sign warns of the toxic legacy of French nuclear testing in Algeria in the 1960s. *Credit: Nic Maclellan*

## The legacy of nuclear testing

Physicians project that some 2.4 million people worldwide will eventually die from cancers due to atmospheric nuclear tests conducted between 1945 and 1980.

Since the dawn of the atomic age in July 1945, nuclear weapons have been tested on more than 2,000 occasions – in the atmosphere, underground and underwater. The toll on human health and the environment has been staggering. Today we each carry in our bodies radioactive substances from the fallout of nuclear testing, increasing our risk of developing cancer. Much of the Earth's surface has been contaminated at some point with radioactive particles. Nuclear testing enables governments to increase the destructiveness and lethality of their nuclear forces.

### NUCLEAR TEST SITES

Nuclear tests have been carried out at more than 60 locations around the globe, often on the lands of indigenous and minority peoples, far away from those who made the decisions to conduct them. While some test sites have been virtually uninhabited, others have been densely populated. The tests have irradiated people working on the programmes, the downwind and downstream communities, and the whole global population. The Nobel Peace Prize-winning organization International Physicians for the Prevention

### NUCLEAR TESTS

Programme	No. tests
USA	1,054
Russia/USSR	715
France	210
United Kingdom	45
China	45
India	6
Pakistan	6
North Korea	2
<b>Total</b>	<b>2,083</b>

of Nuclear War has estimated that roughly 2.4 million people will eventually die as a result of the atmospheric nuclear tests conducted between 1945 and 1980, which were equal in force to 29,000 Hiroshima bombs.

### A NUCLEAR TEST BAN

Public concern in the 1950s about the health and environmental impacts of nuclear testing, including its effect on mothers' milk and babies' teeth, led to the negotiation in 1963 of a treaty banning atmospheric and underwater nuclear tests. A comprehensive nuclear test ban, covering underground tests, was negotiated in 1996. Although the latter treaty has not yet entered into legal force, full-scale nuclear testing has largely come to halt. However, a number of countries continue to test their nuclear weapons sub-critically, involving no chain reaction.

## Production of nuclear weapons

**The production of the explosive materials used in all nuclear weapons – highly enriched uranium and separated plutonium – is harmful to human health and the environment.**

**N**uclear weapons derive their explosive force from uranium and/or plutonium, the latter of which is a by-product of nuclear fission in reactors. The production of both substances causes widespread environmental contamination and is harmful to human health.

### **MINING & ENRICHING URANIUM**

Uranium, its radioactive decay products, and other substances released through uranium mining and processing can cause disease in mineworkers, nuclear industry workers and nearby inhabitants. More than 70 per cent of the world's uranium is mined on the

lands of indigenous peoples. Large volumes of waste tailings result in long-lasting radioactive and chemical pollution. No uranium mine anywhere in the world has been fully cleaned up after mining has finished. Fissile materials created from uranium ore remain toxic and weapons-usable for many millennia. Any enrichment plant that can enrich uranium to reactor grade can also enrich it to weapons grade.

### **NUCLEAR REACTORS**

Plutonium is produced from uranium in a nuclear reactor. Military and civilian nuclear programmes are often closely



**Ranger Mine:** Yvonne Margarula, a Mirarr elder from Australia, has long fought to protect her country from uranium mining. *Credit: Dominic O'Brien*

linked. Most of the recent instances of nuclear proliferation have stemmed from ostensibly peaceful programmes. Releases of radiation similar to or larger than those from a nuclear bomb can come from nuclear reactors and spent fuel ponds – meaning that every reactor is, in effect, a giant pre-positioned dirty bomb. Nuclear accidents, such as that at Chernobyl in 1986, will eventually cause at least several tens of thousands of cancer deaths. Even during normal use, nuclear reactors emit radiation into the air, water and soil, resulting in increased rates of leukaemia in children living within 50 km.

“A phase-out of civilian nuclear energy would provide the most effective and enduring constraint on proliferation risks in a nuclear-weapon-free world.”

International Panel on Fissile Materials, 2009



**Chernobyl:** Useless against gamma radiation, these gas masks lie strewn across an empty classroom floor in Pripjat, Ukraine. *Credit: Ricky Pitman*



**Fukushima:** A baby is tested for radiation in 2011, four days after an earthquake and tsunami struck the Fukushima Daiichi nuclear power plant. *Credit: Kyodo*

**Hunger:** A woman holding her young malnourished baby queues for food in Somalia. Money spent on nuclear weapons could be redirected towards meeting basic human needs. *Credit: UN Photo/Stuart Price*



“The world is over-armed and peace is under-funded .... The end of the cold war has led the world to expect a massive peace dividend. Yet, there are over 20,000 nuclear weapons around the world. Many of them are still on hair-trigger alert, threatening our own survival.”

**United Nations Secretary-General Ban Ki-moon, Mexico City, 2009**

## A diversion of public resources

As millions across the globe go hungry and are denied access to clean water, basic medicines and sanitation, the nuclear-armed nations spend close to US\$300 million a day on their nuclear forces.

The production, maintenance and modernization of nuclear forces diverts vast public resources away from health care, education, climate change mitigation, disaster relief, development assistance and other vital services. Globally, annual expenditure on nuclear weapons is estimated at US\$105 billion – or \$12 million an hour.

### SPENDING ON DEVELOPMENT

The World Bank forecast in 2002 that an annual investment of just US\$40–60 billion, or roughly half the amount currently spent on nuclear weapons, would be enough to

meet the internationally agreed Millennium Development Goals on poverty alleviation by the target date of 2015. Nuclear weapons spending in 2010 was more than twice the official development assistance provided to Africa, the poorest continent on Earth, and equal to the gross domestic product of Bangladesh, a nation of some 160 million people. The Office for Disarmament Affairs – the principal UN body responsible for advancing a nuclear-weapon-free world – has an annual budget of \$10 million, which is less than the amount spent on nuclear weapons every hour.



### ESTIMATED SPENDING ON NUCLEAR WEAPONS IN 2011

Country	USD
United States	61.3 bn
Russia	14.8 bn
China	7.6 bn
France	6.0 bn
United Kingdom	5.5 bn
India	4.9 bn
Israel	1.9 bn
Pakistan	2.2 bn
North Korea	0.7 bn
<b>Total</b>	<b>US\$104.9 bn</b>

Source: Global Zero

**Poverty:** Achan Ajwal, a villager in South Sudan, shows riverweed, her only diet before a World Food Programme food distribution. Credit: UN Photo/Fred Noy

“Some governments tell us that a nuclear weapons convention is premature and unlikely. Don't believe it. They told us the same thing about a mine ban treaty.”

**Anti-landmine campaigner and Nobel Peace Prize winner Jody Williams**



**Cluster bombs:** Abdullah Yaqoob was injured in a British cluster bomb strike in Iraq in 2003. *Credit: DanChurchAid*

**Landmines:** Kabibi Tabu lost both legs in a landmine explosion in 2006 in the Democratic Republic of Congo. *Credit: UN Photo/Martine Perret*



## Outlawing inhumane weapons

There are treaties prohibiting biological weapons, chemical weapons, landmines and cluster munitions, but no such treaty exists – as yet – for nuclear weapons.

The international community has negotiated conventions to eliminate certain types of weapons that cause unacceptable harm to people and the environment. These include biological and chemical weapons, landmines and, most recently, cluster munitions. Although the destructive capacity of nuclear weapons is many times greater than that of these and all other weapons, they are not yet subject to a universal treaty ban. Nevertheless, their use is prohibited under international humanitarian law, and all nations are obliged to negotiate in good faith for nuclear disarmament.



### HUMANITARIAN LAW

Nuclear weapons cannot distinguish between military and civilian targets, or between combatants and non-combatants. Most of the casualties of a nuclear attack would inevitably be civilians. Once the explosive energy of a nuclear chain reaction has been released, it cannot be contained. People in neighbouring and distant countries who have nothing to do with the conflict would suffer from the effects of radioactive fallout, even if they were at a safe distance from the blast and thermal destruction near ground zero.

This disproportionate and indiscriminate destructiveness is clearly a violation of international humanitarian law.

### HUMAN SECURITY

The catastrophic health and environmental consequences of nuclear war are at the extreme end of a continuum of armed violence that undermines health and security. Outlawing and eliminating nuclear weapons is part of a broader struggle for genuine human-centred security founded on respect for basic rights, including rights to education, health care, decent work and a clean environment.

## A nuclear weapons ban

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**To avert a humanitarian catastrophe of unprecedented proportions, nations must intensify efforts to outlaw and eliminate nuclear weapons.**

**A**n understanding of “the devastation that would be visited upon all mankind by a nuclear war” was the motivating force behind the adoption of the nuclear Non-Proliferation Treaty in 1968. Article VI of the agreement obliges all nations to negotiate in good faith for total nuclear disarmament under strict and effective international control. More than four decades on, however, this provision remains largely unfulfilled. At an important review of the treaty in May 2010, governments warned that catastrophic humanitarian consequences could result from continued failure to act.



### **A UNIVERSAL BAN**

The most effective, expeditious and practical way to achieve and sustain the abolition of nuclear weapons would be to negotiate a comprehensive, irreversible, binding, verifiable treaty – a nuclear weapons convention – bringing together all the necessary aspects of nuclear disarmament and non-proliferation. Negotiations should begin without delay and progress in good faith and without interruption until a successful conclusion is reached. Such an approach is supported by the vast majority of people and governments worldwide.

### **WHAT IT COULD ENTAIL**

A nuclear weapons convention could take any number of forms. Most likely, the treaty would oblige nations to disarm according to a series of progressive phases, beginning with taking their nuclear weapons off high-alert status.

Preferably, it would also ban the production of fissile materials and stipulate that existing stocks be eliminated or placed under secure international control. An international monitoring system and dedicated agency could be established to verify compliance with all provisions of the treaty.

# Everyone's responsibility

## 1 Engaging the development sector



A nuclear attack anywhere in the world would have profound implications for the work of organizations that provide disaster relief, refugee assistance and health care, as well as those promoting human rights, food security, poverty alleviation and environmental sustainability. All such groups must play an active role now in efforts to avert a humanitarian catastrophe by eliminating nuclear weapons.

## 2 Engaging United Nations agencies



Nuclear disarmament is a longstanding objective of the United Nations. It is directly relevant to the work of most of its major agencies, including the World Health Organization, the Food and Agriculture Organization, UNICEF, UNESCO, and the High Commissioners for Human Rights and Refugees. The UN family must join forces to address the continuing threat of nuclear conflict.

## 3 Building the political will for a ban



Ultimately, the responsibility to disarm rests with governments. All barriers to achieving a world free of nuclear weapons are political, not technical. The growing recognition among governments of the catastrophic humanitarian consequences of nuclear weapons is a positive development. It must now translate into meaningful action towards a treaty to outlaw and eliminate nuclear weapons.

## 4 Raising public awareness



Generating a powerful groundswell of public support for nuclear abolition will be key to ensuring that all governments engage constructively in negotiations for a nuclear weapons ban. Information about the catastrophic effects of nuclear weapons must be spread through the mass media, become part of the national education curriculum, and be shared widely through NGO networks.

# CATASTROPHIC HUMANITARIAN HARM

Катастрофические гуманитарные последствия

تباہ کن انسانی بنیادوں پر نقصان

Conséquences humanitaires catastrophiques

壞滅的な人道的被害

الأضرار الإنسانية الكارثية

נזק הומניטארי קטסטרופלי

灾难性的人道主义伤害

Daño humanitario catastrófico

भयावह मानवीय नुकसान

치명적인 인도주의적 피해