



The urgent need to begin negotiating a Nuclear Weapons Convention

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For more than 45 years, physicians have documented and described the horrifying medical and humanitarian consequences of nuclear weapons explosions. We have informed political and military leaders that doctors, hospitals, and other medical infrastructure would be so completely overwhelmed in the event of a nuclear war that we would be unable to respond in any meaningful way to relieve the suffering of survivors or to restore health to a devastated world. We have warned that the unique nature of nuclear weapons — their unprecedented destructive power and the radiation they release, causing cancers, birth defects, and genetic disorders across generations — removes any moral justification for their use as weapons of war and requires their abolition.

This ongoing unprecedented threat to all people and the survival and sustainability of our planet is not only continuing but escalating. The Weapons of Mass Destruction Commission chaired by Dr Hans Blix noted:

“Over the past decade, there has been a serious and dangerous, loss of momentum and direction in disarmament and non-proliferation efforts.”¹

Numerous authoritative assessments conclude that the risk use of nuclear weapons is growing. One of the most authoritative is the Board of *The Bulletin of*

¹ Weapons of Mass Destruction Commission. The WMDC report: weapons of terror — freeing the world of nuclear, biological and chemical arms. Stockholm. 2006.

the Atomic Scientists, including 18 Nobel Laureates. In moving the hands of the Doomsday Clock from 7 to 5 minutes to midnight in January 2007 they stated:

“Not since the first atomic bombs were dropped on Hiroshima and Nagasaki has the world faced such perilous choices. North Korea’s recent test of a nuclear weapon, Iran’s nuclear ambitions, a renewed US emphasis on the military utility of nuclear weapons, the failure to adequately secure nuclear materials, and the continued presence of some 26,000 nuclear weapons in the United States and Russia are symptomatic of a larger failure to solve the problems posed by the most destructive technology on Earth.”²

International lawyers, physicians, scientists, and other civil society experts have offered a roadmap toward a nuclear-weapons-free world in the Model Nuclear Weapons Convention. The model NWC—a comprehensive framework for global nuclear disarmament in all its aspects—has been a working document of the General Assembly since 1997. Support for a convention has been voiced repeatedly by majorities of UN Member States. A First Committee resolution (A/C.1/62/L.36) adopted last year and supported by 127 Member States called for the commencement of “multilateral negotiations leading to an early conclusion of a nuclear weapons convention prohibiting the development, production, testing, deployment, stockpiling, transfer, threat or use of nuclear weapons and providing for their elimination.”³

We urge the General Assembly to put this resolution into action by engaging in substantive discussion of the Nuclear Weapons Convention during the 63rd session, and by instructing the Conference on Disarmament and the participants in the 2010 Non-Proliferation Treaty Review Conference to place the Convention at the center of their deliberations from this point on. Such direction from the General Assembly would recall its first resolution, adopted in 1946 and calling for “the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction.” This urgent task not only remains unfulfilled more than 60 years later, but, with regard to nuclear weapons, it has barely begun. Nuclear arms control and disarmament proposals continue to be offered in a piecemeal, disconnected fashion while existing arsenals are “modernized” and new arsenals come into existence. Procedural disputes are used as stalling tactics. For every step forward we seem to take two steps back. The Conference on Disarmament, the world’s sole multilateral disarmament negotiating body, has not undertaken any substantive negotiations for well over a decade. The First Committee sends dozens of strongly worded resolutions on

² Bulletin of the Atomic Scientists. “Doomsday clock” moves two minutes closer to midnight. Press release. 17 January 2007. [www.thebulletin.org].

³ UNGA. Follow-up to the advisory opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons. Document A/C.1/62/L.36. 17 October 2007.

different aspects of nuclear disarmament to the General Assembly each year, and each year the General Assembly adopts them and moves to the next item on its agenda. NPT Review Conferences and Preparatory Committee sessions are dominated by debates about whether disarmament or non-proliferation should come first, when the Treaty obligates Member States to pursue both simultaneously. Former Secretary-General Kofi Annan made this point eloquently at the conclusion of his term:

"[T]hese two objectives — disarmament and non-proliferation — are inextricably linked, and...to achieve progress on either front we must also advance on the other...It would be much easier to confront proliferators, if the very existence of nuclear weapons were universally acknowledged as dangerous and ultimately illegitimate."⁴

In making that assertion, Secretary-General Annan reiterated the view of the International Court of Justice, which, 10 years earlier, had advised the General Assembly that all states had an obligation, under international law, "to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control."⁵ Secretary-General Ban Ki-moon told the Conference on Disarmament this January that "To get back on the path to success, the Conference must rekindle the ambition and sense of common purpose that produced its past accomplishments."⁶ The Nuclear Weapons Convention, while its precise terms remain to be negotiated, embodies that common purpose.

Reinforcing and building on the NPT

The NWC cuts through the widely held perception that nuclear disarmament is an improbable dream. It offers a vision of what a nuclear-weapons-free world might look like, showing the steps that could practically lead to nuclear weapons being safely and securely eliminated. The model NWC contains detailed provisions for national implementation and guidelines for verification; establishes an international agency responsible for enforcement and dispute settlement; and indicates procedures for reporting and addressing violations. It is comparable, in these respects, to other treaties banning entire categories of weapons, such as the Chemical Weapons Convention, the Biological Weapons Convention and the Mine Ban Treaty. The model NWC simply applies the lessons of successes in nuclear disarmament with the comprehensive, universal treaty-based approach which has been the

⁴ Annan, K. Lecture. Princeton University. 28 November 2006. [www.un.org/News/Press/docs/2006/sgsm10767.doc.htm]

⁵ International Court of Justice. Legality of the threat or use of nuclear weapons. Advisory opinion of 8 July 1996. [www.icj-cij.org/docket/index.php?p1=3&p2=4&k=e1&p3=4&case=95]

⁶ Secretary-General's statement to the Conference on Disarmament. Geneva, Switzerland. 23 January 2008. [www.un.org/apps/sg/sgstats.asp?nid=2962]

logical approach for all the successes towards abolishing other major classes of weapons to date. To assert that a similar approach to nuclear weapons is impractical or counterproductive is inconsistent and disingenuous. A nuclear weapons convention will enable nuclear weapons states to fulfil their legal obligations under the NPT, will bridge the divide between non-proliferation and disarmament, and will address the issue of universality, which has plagued the NPT from the beginning.

The NPT is already under serious strain. The exception recently granted nuclear trade with India essentially rewards India despite its development of nuclear weapons as a non-party to the NPT, and provides for nuclear cooperation previously restricted to NPT signatories. This adds to the failure of the nuclear weapon states to disarm, and instead to enhance their nuclear arsenals, to erode the incentives for the vast majority of non-nuclear weapons to continue to fulfill their obligations under the Treaty. Other nuclear weapons states outside the NPT can be expected to seek similar exemptions. The only prospect which stands a serious chance of breaking this negative spiral towards nuclear anarchy is serious, widespread commitment to eradication of nuclear weapons, made credible by tangible progress towards this goal.

At the 1995 NPT Review and Extension Conference, the Parties agreed “to pursue systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons.” They went further in 2000, committing themselves to an “unequivocal undertaking” to eliminate nuclear weapons, and endorsing specific benchmarks spelled out in a 13-step action plan. Each of these benchmarks—including entry into force of the Comprehensive Test Ban Treaty, a ban on the production of fissile materials for nuclear weapons, reduced operational status, a diminished role for nuclear weapons in security policies, and the continued development of verification capabilities, among others—is an integral part of the Convention, which organizes the many aspects of nuclear disarmament into a coherent whole.

States parties to the Convention would be required to declare all nuclear weapons, nuclear material, nuclear facilities and nuclear weapons delivery vehicles they possess or control, and their locations. The model Convention outlines a series of five phases for elimination: taking nuclear weapons off alert; removing weapons from deployment; removing nuclear warheads from their delivery vehicles; disabling the warheads, removing and disfiguring the “pits” where the weapons are stored; and placing the fissile material under international control. Compliance and verification would be assured through declarations and reports from States, routine and unannounced inspections, and a full range of technical monitoring systems.

The NWC does not undermine existing nuclear non-proliferation and disarmament regimes—a concern sometimes raised by governments and diplomats. It would complement, enhance and build on all of these. In short, there is no reason not to make this historic transition from a fragmented approach to a comprehensive approach, and there is every reason to do so. In fact the recent history of nuclear proliferation demonstrates unequivocally that any approach which perpetuates a double standard—that nuclear weapons are essential

instruments of security in the hands of some nations, and intolerable threats to security in the hands of others, a threat so great as to warrant pre-emptive war—is doomed to failure. Widespread access to nuclear technology and materials ensures that. The only sustainable, practical approach which could gain the support of all nations is one consistent goal—zero nuclear weapons—for all.

New science and the stark consequences of failure

The stakes could not be higher. Increasing knowledge of how to construct nuclear weapons, increasing availability of the materials with which to make a bomb, increasing numbers of people desperate enough to use the bomb, and, most important, a lack of international resolve to ban the bomb and banish it from the arsenals of the world, make the use of nuclear weapons inevitable if we do not act decisively.

As physicians, we are obliged to remind you what that would mean.

The 12.5-kiloton bomb detonated in the air over Hiroshima decimated the city and created ground temperatures that reached about 7,000 degrees Celsius. Of the 76,000 buildings in the city, 92% were destroyed or damaged. There were more than 100,000 deaths and approximately 75,000 injuries among a population of nearly 250,000. Of the 298 physicians in the city, 270 were dead or injured and 1,564 of 1,780 nurses died or were injured.

The 21-kiloton bomb detonated in the air over Nagasaki three days later leveled 6.7 square kilometers (2.6 square miles). There were 75,000 immediate deaths and 75,000 injuries, with destruction of medical facilities and personnel and health consequences for the population of the city that were similar to those of Hiroshima.

A 2002 study published in the *British Medical Journal* estimated the casualties from a 12.5 kiloton nuclear explosion at ground level near the port area of New York City. The model projected 262,000 people would be killed, including 52,000 immediately and the remainder succumbing to radiation injuries. Caring for survivors would also be difficult, if not impossible, with the loss of 1,000 hospital beds in the blast and another 8,700 available beds in areas of high radiation exposure.⁷

A regional nuclear war in South Asia involving only 100 Hiroshima-sized (15-kt) weapons targeted on megacities would kill 20 million people outright, a number equal to half of all those killed worldwide during the six years of World War II. A nuclear war between the US and Russia, whose leaders persist in maintaining the world's largest nuclear arsenals and have thousands of weapons ready to be launched in a matter of minutes, would kill hundreds of millions and could trigger a nuclear winter. As physicians, we are not comforted by assertions that these weapons are in responsible hands and that such possibilities are not to be feared. It is not the character of their owners but the nature of the weapons which is at issue.

⁷ Helfand I, Forrow L, Tiwari J. Nuclear terrorism. *BMJ* 2002;324:356-359.

In December 2006, climate scientists who had worked with the late Carl Sagan in the 1980s to document the threat of nuclear winter produced disturbing new research about the climate effects of low-yield, regional nuclear war.⁸ Using South Asia as an example, these experts found that even a limited regional nuclear war on the order of 100 Hiroshima-sized nuclear weapons would result in tens of millions of immediate deaths and unprecedented global climate disruption. Smoke from urban firestorms caused by multiple nuclear explosions would rise into the upper troposphere and, due to atmospheric heating, would subsequently be boosted deep into the stratosphere. The resulting soot cloud would block the sun, leading to significant cooling and reductions in precipitation lasting for more than a decade. Within 10 days following the explosions, there would be a drop in average surface temperature of 1.25° C. Over the following year, a 10% decline in average global rainfall and a large reduction in the Asian summer monsoon would have a significant impact on agricultural production. These effects would persist over many years. The growing season would be shortened by 10 to 20 days in many of the most important grain producing areas in the world, which might completely eliminate crops that have insufficient time to reach maturity.

To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth's protective ozone. A study published in April by the National Academy of Sciences, using a similar nuclear war scenario involving 100 Hiroshima-size bombs, shows ozone losses in excess of 20% globally, 25–45% at midlatitudes, and 50–70% at northern high latitudes persisting for five years, with substantial losses continuing for five additional years.⁹ The resulting increases in UV radiation would have serious consequences for human health.

There are currently more than 800 million people in the world who are chronically malnourished. Several hundred million more live in countries that depend on imported grain. Even a modest, sudden decline in agricultural production could trigger significant increases in the prices for basic foods, as well as hoarding on a global scale, making food inaccessible to poor people in much of the world. While it is not possible to estimate the precise extent of the global famine that would follow a regional nuclear war, it seems reasonable to anticipate a total global death toll in the range of one billion from starvation alone. Famine on this scale would also lead to major epidemics of infectious diseases, and would create immense potential for mass population movement, civil conflict, and war.

These findings have significant implications for nuclear weapons policy. They are powerful evidence in the case against the proliferation of nuclear weapons and against the modernization of arsenals in the existing nuclear weapon states. Even more important, they argue for a fundamental reassessment of the role of nuclear weapons in the world. If even a relatively

⁸ Robock A, et.al. Climatic consequences of regional nuclear conflicts, *Atmospheric Chemistry and Physics Discussion* 2006;6:11817-11843.

⁹ Mills MJ et al. Massive global ozone loss predicted following regional nuclear conflict. *PNAS*, 2008;105(14):5307-5312.

small nuclear war, by Cold War standards—within the capacity of 8 nuclear-armed states—could trigger a global catastrophe, the only viable response is the complete abolition of nuclear weapons.

Conclusion: an urgent need for action beyond rhetoric

The Member States of the United Nations set out to achieve a nuclear-weapons-free world in the 20th century, and failed to reach that goal. This failure can be traced back, in part, to the fact that the General Assembly did not insist upon the commencement of negotiations on a timebound schedule. Mayors for Peace, under the leadership of Hiroshima Mayor Tadatoshi Akiba, has called for the elimination of all nuclear weapons by 2020—the 75th anniversary of the US atomic bombings of Hiroshima and Nagasaki. This goal is achievable if negotiations on a Nuclear Weapons Convention commence no later than the conclusion of the 2010 NPT Review. The General Assembly has an opportunity and a responsibility to provide its disarmament bodies with the Convention roadmap, and to set a timeline for results. Every day of inaction further risks the chance that our collective luck will run out.

We respectfully request the President of the 63rd session and the General Assembly as a whole to take up the Nuclear Weapons Convention as its highest disarmament and non-proliferation priority.