



International Physicians
for the Prevention of Nuclear War

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Committee Secretariat
Joint Standing Committee on Treaties
House of Representatives
PO Box 6021
Parliament House
Canberra ACT 2600

To the Joint Standing Committee:

IPPNW commends the Australian government for launching an inquiry into Australia's international nuclear agreements, and we welcome this opportunity to offer you our views on how Australia might support and strengthen global efforts to abolish all nuclear weapons and achieve a nuclear-weapons-free world.

IPPNW, which received the 1985 Nobel Peace Prize for its work to inform US and former Soviet leaders about the medical consequences of nuclear war and to argue for their elimination, has carried this advocacy into the post-Cold War environment, where the dangers related to nuclear weapons have become more complicated and, in many ways, more immediate.

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.

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."

US President Barack Obama has asserted repeatedly that he intends to work for a nuclear-weapons-free world, and while we believe that this sea change in US policy is highly significant in its own right, international leadership and partnership will be necessary to advance the goal of global nuclear disarmament along an effective path, in the shortest possible time.

Australia is uniquely positioned among the non-nuclear-weapon states to reach out to the new US administration as an international champion of a nuclear-weapons-free world. The International Commission on Nuclear Non-Proliferation and Disarmament established by Prime Minister Rudd positions Australia to play a key role in shaping the agenda and the outcome of the 2010 NPT Review, which we believe will be a turning point in the global effort to prevent the spread of nuclear weapons, to eliminate them where they already exist, and, most important, to ensure that they are never used again.

While the NPT remains the cornerstone of the disarmament and non-proliferation regime and must be strengthened between now and May 2010, the problem remains that 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. The nuclear double standard, by which some states insist upon the need for nuclear weapons while denying the legitimacy of that claim by others, remains entrenched in the policies of the nuclear weapon states and is logically and morally indefensible. Procedural disputes have been 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, is engaged in no negotiations. The First Committee sends dozens of strongly worded resolutions on 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 have been 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."

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." 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." The Nuclear Weapons Convention, while its precise terms remain to be negotiated, embodies that common purpose.

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 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. A nuclear weapons convention will enable nuclear weapons states to fulfill 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.

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.

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.

○ 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.

○ 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. 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. 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 and 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 war and civil conflict.

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 small nuclear war, by Cold War standards, could trigger a global catastrophe, the only viable response is the complete abolition of nuclear weapons.

In the short term, Australia can take specific, concrete steps to ensure the success of the 2010 NPT Review. We would define success as a recommitment by all NPT Member States—but especially the nuclear-weapon states—to the outcome of the 2000 Review, including mechanisms and an agreed upon timetable for implementing the action plan contained in the final report. We would place particular emphasis on a few steps that are long overdue and should be implemented promptly as a foundation for further progress:

- Bringing the Comprehensive Test Ban Treaty into force;
- Taking all existing nuclear weapons off alert;
- Negotiating and completing a treaty banning the production of fissile materials;
- Instituting key confidence-building measures, including no-first-use declarations and negative security assurances;
- Stopping all programs to build new nuclear weapons and the infrastructures with which to build them.

The latter step may well be the most important one at a time when all the nuclear-weapon states are engaged in projects to replace aging warheads and delivery systems, or to add new, more sophisticated capabilities to their nuclear arsenals. Such programs are incompatible with a genuine commitment to a nuclear-weapons-free world, and send exactly the wrong signal to potential proliferators. Any diplomatic initiative Australia can take to bring this message to the nuclear-weapon states—especially to the US and Russia—would have extraordinary value.

Looking beyond the 2010 NPT Review itself—although this work can and should take place concurrently with the runup to the Review—we urge the Australian government to take up the cause of the Nuclear Weapons Convention. Mayors for Peace has called for the commencement of negotiations on an NWC immediately upon the conclusion of the 2010 Review. For this to become a political reality, the diplomatic community will have to become much more familiar than they are at present with the elements and language of the Model NWC submitted by Costa Rica and Malaysia as a working document of both the NPT and the UN General Assembly. Australia could play a major role in building state support for the Convention, and we urge this course upon the government as an outcome of the present inquiry.

Respectfully,

Vappu Taipale
Co-President

Ime John
Co-President

Sergey Kolesnikov
Co-President