

80 Years after Hiroshima and Nagasaki: The Human Cost and Canada's Role

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Why Do We Remember August 6 and 9, 1945?

On August 6 and 9, 1945, more than 100,000 civilians in Hiroshima and Nagasaki were killed instantly by two atomic bombs. Survivors, known as hibakusha, have endured long-term physical and psychological trauma.

But hibakusha have become so much more than victims by bearing witness to the devastation and advocating for a world without nuclear weapons. Both Hiroshima and Nagasaki have become symbols of nuclear devastation, as well as advocates for peace and remembrance.

Eighty years later, their message is more urgent than ever. <u>Global nuclear risks</u> are intensifying as geopolitical tensions rise, nuclear-armed states modernize their arsenals, arms control agreements erode, and combatants threaten the use of tactical nuclear weapons. To safeguard humanity's shared future, the world demands renewed commitments to disarmament and diplomacy.

What Exactly Happened?

The bomb "Little Boy" was <u>dropped</u> on Hiroshima at 8:15 a.m. on August 6. The <u>explosion</u> caused a massive firestorm and flattened nearly 70 percent of the city, immediately killing approximately 80,000 people.

Three days later, at 11:02 a.m. on August 9, a plutonium bomb, "Fat Man," was dropped on Nagasaki. Approximately 40,000 people were killed instantly; by the end of 1945, the death toll had risen to more than 70,000.

Why Do the Voices of Survivors Matter?

<u>Hibakusha</u> have experienced both the immediate and long-term effects of nuclear warfare. Many initially <u>suffered</u> severe burns, radiation sickness, internal injuries, and the psychological trauma of losing family, homes, and community. In the many years since, they have faced <u>heightened risks</u> of cancer, chronic illness, and social discrimination rooted in fear and misunderstanding of radiation exposure.

How Have Survivors Worked for Justice, Remembrance, and Disarmament?

Hibakusha have transformed personal tragedy into collective advocacy, playing a critical role in building global movements for peace and disarmament. Educating through their own testimonies, they have demanded recognition, accountability, and abolition at international forums. Their moral clarity has shaped key disarmament efforts, including the Treaty on the Prohibition of Nuclear Weapons (TPNW). Figures such as <u>Setsuko Thurlow</u> and organizations like <u>Nihon Hidankyo</u> have brought survivor voices to the global stage, affirming that disarmament is a humanitarian imperative.

What Lessons Must We Learn from Survivors?

Hibakusha testimonies <u>serve</u> as a living moral compass. Their lived experiences confront us with the human consequences of strategies of mutual nuclear deterrence and challenge the normalization of weapons of mass destruction and the unthinking use of emerging technologies, including <u>artificial intelligence</u> (AI), cyber, and hypersonic missiles. The insights of survivors compel us to reframe nuclear policy around ethics, not strategy. They remind us that peace is not a passive state but a commitment to human dignity and political responsibility.

However, the generation of the hibakusha is coming to an end. Their testimonies must be preserved before they are lost forever, because they carry not only the memory of atrocity, but the wisdom and warning necessary to guide future generations. If we forget, we <u>risk</u> repeating horrific mistakes.

How Has the World Responded to Hiroshima and Nagasaki?

The atomic bombings of Hiroshima and Nagasaki exposed the devastating human cost of nuclear weapons and sparked urgent demands that such destruction never happen again. Since 1945, governments and civil society have built a framework for nuclear resistance, but progress has been inconsistent and could be reversed.

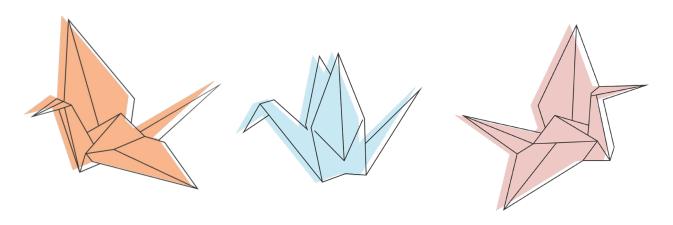
Nuclear disarmament was a founding priority of the <u>United Nations</u>. <u>International treaties</u> have limited the testing, proliferation, and deployment of nuclear weapons. The intent has

been to build a rules-based global order around non-proliferation and to lay legal foundations for eventual disarmament.

Since the end of the <u>Cold War</u>, global nuclear stockpiles have been significantly reduced. There has been a shift in international norms, driven by civil society, survivor testimony, and humanitarian advocacy.

However, in the twenty-first century, momentum has slowed. Key arms control agreements have <u>unraveled</u>, multilateral negotiations have stalled, and trust among nuclear powers has eroded. Recent years have seen a <u>resurgence</u> in nuclear rhetoric and the introduction of destabilizing technologies.

Moreover, the core goal of disarmament has not been realized. Nuclear weapons <u>remain</u> central to the security strategies of major powers, and no nuclear-armed state has committed to eliminating their stockpiles.



What Are Major Disarmament Milestones?

- » 1946: The UN calls for nuclear elimination (Resolution 1[I]): Its <u>first</u> resolution, adopted in January 1946, called for the elimination of atomic weapons and all other weapons of mass destruction, marking the beginning of international efforts to prevent nuclear catastrophe.
- » 1968: The Nuclear Non-Proliferation Treaty (NPT): This landmark treaty aims to prevent the spread of nuclear weapons, promote peaceful uses of nuclear energy, and pursue disarmament. With 191 states parties, it is one of the most widely supported arms control treaties. However, disarmament under the treaty has largely stalled, and growing divisions between nuclear-armed and non-nuclear-armed states have weakened its credibility.
- » 1996: The Comprehensive Test Ban Treaty (CTBT, not yet in force): The CTBT prohibits all nuclear test explosions. Although adopted in 1996 and signed by 187 countries, it has not entered into force because eight key states, including the United States, China, India, and Pakistan have yet to ratify it.

» 2017: The Treaty on the Prohibition of Nuclear Weapons (TPNW): The TPNW is the first international treaty to <u>fully outlaw</u> nuclear weapons, including their development, possession, and use. It entered into force in 2021 and now has more than <u>70 states parties</u>. However, none of the nuclear-armed states or their military allies, including NATO members like Canada, have joined, limiting its immediate impact.

What Are Some Hurdles to Disarmament?

- » Nine countries possess 12,500+ nuclear warheads.
- » Nuclear-armed states are modernizing their stockpiles.
- » Arms control treaties are being weakened or destroyed.

How Is Canada Linked to Nuclear Weapons?

Canada was a key supplier of the fissile material used in the first atomic weapon dropped on civilians. The high-grade uranium used in the Hiroshima bomb came from the Eldorado Mine near Great Bear Lake in Canada's Northwest Territories. Members of the Deligne Dene First Nation were unknowingly exposed to radioactive materials while transporting uranium ore from the mine by hand, sled, or canoe. Decades later, the community reported high rates of cancer and premature death.

The ore was refined in <u>Port Hope</u>, Ontario, which has ongoing problems with radiation contamination.

Since then, Canada has <u>supported</u> the NPT, the CTBT, and efforts to negotiate a Fissile Material Cut-off Treaty (FMCT). However, it <u>has not</u> signed or ratified the TPNW, citing NATO obligations, even though 74 percent of Canadians supported joining the TPNW in 2022.

Why Are Nuclear Weapons a Threat Today?

<u>Al systems</u> integrated into early warning and command structures may misinterpret ambiguous data during crises, leading to unintended escalation of conflict. <u>Cyberattacks</u> could disrupt or spoof nuclear command-and-control systems, triggering false alarms or disabling communications. <u>Hypersonic weapons</u>, which travel at extreme speeds and manoeuvre unpredictably, drastically shorten response times, thus reducing the chance for human decision-making and increasing the likelihood of miscalculation.

<u>Russia's invasion</u> of Ukraine in 2022 altered the global nuclear landscape. Russian threats to use tactical nuclear weapons have shaped <u>NATO</u>'s strategic posture and heightened global tensions. Other flashpoints, such as <u>North Korea</u> and <u>Iran</u>, underscore how geopolitical instability is reviving the relevance and risks of nuclear weapons in today's security environment.

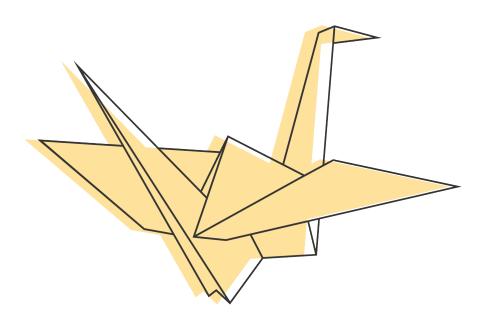
What Should Canada – and the World – Do Now?

Governments must <u>prioritize</u> diplomacy, transparency, and <u>disarmament</u>, re-engaging in multilateral arms control, supporting verification mechanisms, and committing to no-first-use of nuclear weapons and risk-reduction policies. States should also invest in diplomatic capacity, halt the development of destabilizing technologies, and support treaties such as the TPNW.

Civil society and survivors have <u>long shaped</u> the global disarmament movement by focusing on the human cost of nuclear weapons. Hibakusha testimonies have <u>redefined</u> international norms and inspired legal change, including the TPNW. Civil society organizations, educators, youth activists, and Indigenous leaders continue to push for accountability, education, and abolition. Their work bridges policy and public awareness, ensuring that nuclear risks are not treated as distant or abstract, but as urgent issues of justice and survival.

Canada should <u>align</u> its nuclear policy with its stated humanitarian values and the wide-spread public support for disarmament. It must sign and ratify the TPNW, fund survivor-led education and justice initiatives, and work with NATO to reduce reliance on nuclear deterrence. As a country with a historical role in the development of nuclear weapons and a strong tradition of peacebuilding, Canada has both the responsibility and opportunity to lead on policies related to disarmament, reconciliation, and global nuclear justice. It should:

- » fund support and justice for nuclear survivors, including Indigenous victims
- » increase transparency and democratic oversight of nuclear weapons and their use
- » invest in arms control verification and diplomacy
- » reframe nuclear weapons as humanitarian rather than military threats.





Project Ploughshares is a Canadian peace research institute with a focus on disarmament efforts and international security, specifically related to the arms trade, emerging military and security technologies, nuclear weapons, the protection of civilians, outer space, and the intersection of climate, peace, and security.

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