BOLD ACTION IS NEEDED

The current two-tier structure of nuclear “haves” and “have-nots,” as set forth in the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), must be brought to an end. The way this can be done most effectively is by negotiating a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons. It is time for the non-nuclear weapon states to demonstrate that there will be serious consequences if the nuclear weapon states continue to avoid their obligations under the NPT to pursue good faith negotiations for complete nuclear disarmament.

A consequence of failure of the nuclear weapon states to initiate negotiations for a Nuclear Weapons Convention in a timely way could be a boycott of the 2015 NPT Review Conference by non-nuclear weapon states and the convening instead of an alternative conference to prepare and begin negotiations for a Nuclear Weapons Convention. This would be a bold way of sending a strong message to the nuclear weapon states that enough is enough and it is past time for serious action on their nuclear disarmament obligations. Absent such action, a sustainable future remains in jeopardy, and humanity is at risk of nuclear proliferation, nuclear terrorism, nuclear war and nuclear famine.

The author expresses appreciation to Steven Starr for his many helpful suggestions on this Briefing Paper and his dedication to eliminating the dangers of launch-ready nuclear postures that could trigger a nuclear war resulting in nuclear darkness and famine. He also expresses appreciation to Richard Falk, Rick Wayman, Commander Robert Green and Carol Warner for their suggestions on earlier drafts of this Briefing Paper.
A SUSTAINABLE FUTURE

A sustainable world is a necessity for the people of the future who are not yet here to speak and act for themselves. It is the responsibility of those of us now living to speak for them and to do what we can to pass this planet on intact to the generations that follow us.

Sustainability requires protecting the Earth and its biodiversity. It requires assuring the availability and quality of the air and water. It requires food production for an increasing population, which depends upon protection of the oceans and land from pollutants and protecting the topsoil of the Earth for agriculture. It requires reducing greenhouse gases to limit climate change, which is determined by our energy choices. Our collective efforts for or against sustainability reflect what we value and who we are.

In our cultures of war, we have developed vast arsenals of nuclear weapons that are antithetical to the sustainability of the planet. A war fought with these weapons would not only destroy civilization, it could foreclose the future for humans and most other forms of complex life. In addition to addressing the many significant environmental challenges confronting humanity, in the Nuclear Age we are challenged to control and then eliminate our most powerful and dangerous weapons before they eliminate us.

NUCLEAR WEAPONS

Nuclear weapons are terror devices that kill, maim and poison indiscriminately – men, women, children and the environment. Because of this, they lack utility for military purposes. Yet, there are still nearly 20,000 of these weapons in the arsenals of nine countries, five of which are parties to the Non-Proliferation Treaty and bound by its Article VI obligation to pursue good faith negotiations for nuclear disarmament in all its aspects.1 Over 95 percent of the nuclear weapons in the world are in the US and Russian arsenals.

The International Court of Justice, in its 1996 Advisory Opinion on the legality of the threat or use of nuclear weapons, reached the sobering conclusion: “The destructive power of nuclear weapons cannot be contained in either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet.”2 Nuclear weapons are the ultimate tools of mass annihilation.

In a world where chemical and biological weapons, land mines, cluster bombs and dumdum bullets are outlawed, how can nuclear weapons retain any legitimacy? They cannot. The International Court of Justice 1996 Advisory Opinion confirms this. In accord with this authoritative opinion, any threat or use of nuclear weapons that would violate international humanitarian law – including those uses for which they are currently deployed – would be illegal under international law.3

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1 These five countries are: United States, Russia, United Kingdom, France and China, the permanent members of the United Nations Security Council.
3 Ibid., p. 37.
LAND-BASED MISSILES

The US and Russia continue to deploy launch-ready, land-based inter-continental ballistic missiles (ICBMs) in fixed silos as part of a triad of nuclear delivery vehicles that also includes bombers and submarine-launched missiles. In a time of crisis, either before or after armed conflict breaks out, these high-alert ICBMs create impetus to initiate a first strike. In other words, during such a period of high tension, land-based missiles may be the opposite of a deterrent to nuclear war. There is incentive to “use them or lose them” before they can be destroyed in their silos by a first-strike attack by the other side.4

Land-based missiles should be immediately removed from launch-ready status and ultimately dismantled, in conjunction with No First Use pledges. Elimination of high-alert, launch-ready nuclear forces would foreclose the option of launch on warning. Elimination would also preclude the possibility of either the US or Russia initiating an accidental nuclear war based upon false warning of attack, as well as greatly reducing the likelihood of unauthorized or accidental launch of nuclear-armed ballistic missiles.5

NUCLEAR FAMINE

Recent peer-reviewed studies by prominent atmospheric scientists at leading American universities predict that the detonation of only a tiny fraction of currently deployed nuclear arsenals would cause catastrophic changes in global climate and massive destruction of Earth’s protective ozone layer. Scientists modeled a hypothetical war between India and Pakistan, in which each side detonates 50 Hiroshima-size nuclear weapons on the other side’s cities. The resulting nuclear firestorms would lead to the formation of a global stratospheric smoke layer that would last for 10 years.6

The smoke would block warming sunlight and quickly produce the coldest average surface temperatures experienced in the Northern Hemisphere during the last 1,000 years. Prolonged cold would bring decreased precipitation and would significantly shorten growing seasons, with subsequent declines in crop yields.7 Medical experts predict that in the years following a nuclear exchange hundreds of millions of people could die of starvation.8

The atomic bombs detonated in the India-Pakistan scenario would have less than one percent of the explosive power in the currently deployed operational nuclear arsenals of the US and Russia. The new scientific research makes it quite clear that a war fought with existing arsenals of strategic nuclear

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7 Ibid.
weapons would leave the Earth essentially uninhabitable for humans. Tens of millions of tons of smoke would block the majority of sunlight from reaching the surface of our planet; daily minimum temperatures would be below freezing for one to three years in central North America and Eurasia; and growing seasons would be eliminated for many years. These deadly long-term changes to global climate and the environment would kill most humans and possibly lead to our extinction.

US and Russian nuclear war plans still contain nuclear strike options with hundreds of preplanned targets, which include cities and urban areas in each other’s countries. Any failure of deterrence has the potential to lead to the quick-launch of high-alert nuclear forces targeted at US and Russian cities. It is possible that a first-strike attack by either the US or Russia that targeted sites in or near the other side’s cities could result in the stratospheric smoke that would create a nuclear famine causing the self-destruction of the attacking country, even without a retaliatory attack. The prospects of nuclear famine, which are inherent in nuclear war, make the use of nuclear weapons both suicidal and omnicidal.

**IS A NUCLEAR WAR LIKELY?**

While a nuclear war is not likely, it is possible and could occur by accident, miscalculation or design. Just as the large-scale radiation releases from the accident at the Fukushima Dai-ichi nuclear power plant seemed unlikely until they occurred, the possibility of nuclear war also may seem unlikely until deterrence fails and it occurs. Nuclear deterrence requires the constant maintenance of clear communications and rational behavior on all sides and in all circumstances.

One thing we know about humans is that we are fallible. We are not capable of perfection and we cannot eliminate human error altogether no matter how diligently we try. Human fallibility and nuclear weapons are a highly volatile mix. Our best hope of preventing the use of nuclear weapons is to abolish them. That is the challenge that now confronts us.

**THE SANTA BARBARA DECLARATION**

In 2011, the Nuclear Age Peace Foundation hosted a meeting in Santa Barbara on “The Dangers of Nuclear Deterrence” to examine flaws in nuclear deterrence theory. A product of this meeting was the Santa Barbara Declaration, which called for rejecting nuclear deterrence. The Declaration lists eight major problems with nuclear deterrence:

1. Its power to protect is a dangerous fabrication. The threat or use of nuclear weapons provides no protection against an attack.

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2. It assumes rational leaders, but there can be irrational or paranoid leaders on any side of a conflict.

3. Threatening or committing mass murder with nuclear weapons is illegal and criminal. It violates fundamental legal precepts of domestic and international law, threatening the indiscriminate slaughter of innocent people.

4. It is deeply immoral for the same reasons it is illegal: it threatens indiscriminate and grossly disproportionate death and destruction.

5. It diverts human and economic resources desperately needed to meet basic human needs around the world. Globally, approximately $100 billion is spent annually on nuclear forces.

6. It has no effect against non-state extremists, who govern no territory or population.

7. It is vulnerable to cyber attack, sabotage, and human or technical error, which could result in a nuclear strike.

8. It sets an example for additional countries to pursue nuclear weapons for their own nuclear deterrent force.12

The Declaration concludes by calling for replacing the doctrine of nuclear deterrence with a concerted effort to achieve a Nuclear Weapons Convention for the elimination of all nuclear weapons:

Nuclear deterrence is discriminatory, anti-democratic and unsustainable. This doctrine must be discredited and replaced with an urgent commitment to achieve global nuclear disarmament. We must change the discourse by speaking truth to power and speaking truth to each other.

Before another nuclear weapon is used, nuclear deterrence must be replaced by humane, legal and moral security strategies. We call upon people everywhere to join us in demanding that the nuclear weapon states and their allies reject nuclear deterrence and negotiate without delay a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of all nuclear weapons.13

FROM THE NPT TO A NUCLEAR WEAPONS CONVENTION

The Non-Proliferation Treaty calls in Article VI for the pursuit of good faith negotiations to achieve nuclear disarmament.14 In interpreting this article of the NPT, the International Court of Justice (ICJ) stated in its 1996 Advisory Opinion on the legality of the threat or use of nuclear weapons:

There exists an obligation 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.15

12 Ibid.
13 Ibid.
15 Advisory Opinion of the International Court of Justice on the legality of the threat or use of nuclear weapons, United Nations General Assembly, op. cit., p. 37.
It has been more than 40 years since the NPT entered into force. The non-nuclear weapon states that are parties to the treaty have kept their part of the bargain and not developed or otherwise acquired nuclear weapons. The exception is North Korea, which withdrew from the treaty under Article X in its “supreme interests” in 2003 and proceeded to test nuclear devices in 2006 and 2009.

Although the nuclear weapon states have reduced their nuclear arsenals, they also continue to modernize them. The vast majority of the weapons are in the arsenals of the US and Russia. The remaining weapons are in the arsenals of the UK, France, China, Israel, India, Pakistan and North Korea. Israel, India and Pakistan remain outside the NPT, and North Korea, as previously mentioned, has withdrawn from the treaty.

The most expeditious way forward to accomplishing the good faith negotiations required by the NPT would be for the five NPT nuclear weapon states to join with the other nations of the world, including the four non-NPT nuclear weapon states, to begin negotiations for a Nuclear Weapons Convention. Such a Convention would need to be fully multilateral and binding upon all states, nuclear and non-nuclear, in the international community. There could not be hold-out states as there have been with the NPT. The implementation of a Nuclear Weapons Convention should be done in phases to build confidence in verification systems and procedures. Reductions in nuclear arsenals should be done in a way that is irreversible. The Convention should also have procedures for transparency, but these must be balanced against the need for states to maintain their security during and following the disarmament process.

### Moving Forward

For the NPT Review Conference in 2010, the Nuclear Age Peace Foundation prepared and distributed a Briefing Booklet, *Nuclear Non-Proliferation and Disarmament: Shifting the Mindset*. In this Briefing Booklet, we recommended a number of steps for consideration by the parties to the NPT. These are shown in Appendix A. We also proposed five priority steps and introduced these priorities in this way:

There is much that needs to be done to achieve a nuclear weapon-free world. It is possible to debate endlessly about which steps are most essential. What is most needed, and foundational to any list of serious actions, is the political will to achieve a world without nuclear weapons. That political will must be rooted in a strong multilateral commitment to go to zero nuclear weapons. Such political will would reflect new ways of thinking, away from the approach that seeks advantage for one country at the expense of risking catastrophe. Having said this, however, the requisite political will is best expressed not only in words but also in actions.

The five priority steps are:

1. **Preparation for Nuclear Disarmament.** Each signatory nuclear weapon state should provide an accurate public accounting of its nuclear arsenal, conduct a public environmental and human assessment of its potential use, and devise and make public a roadmap for going to zero nuclear weapons.

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17 Ibid.
An accurate public accounting of its nuclear arsenal by each nuclear weapon state would be a valuable preliminary step to negotiating the elimination of all nuclear weapons. A public environmental and human impact statement of the use of a country’s nuclear arsenal would demonstrate its self-awareness of the dangers posed by nuclear weapons and would shed light for the public on those dangers. Preparing and making public a roadmap for going to zero nuclear weapons would show that a country was grappling with the process of reducing and eliminating its nuclear arsenal and would provide a starting point for negotiation of a Nuclear Weapons Convention.

2. **Nuclear Threat Reduction.** All signatory nuclear weapon states should reduce the role of nuclear weapons in their security policies by taking all nuclear forces off high-alert status, pledging No First Use of nuclear weapons against other nuclear weapon states and No Use against non-nuclear weapon states.

   The Cold War has been over for more than 20 years. There is no reason for a country to maintain its nuclear arsenal on high-alert or launch-on-warning status. Doing so opens the door to inadvertent nuclear weapons use by accident or miscalculation. Similarly, there is no reason for a country to continue to threaten First Use of nuclear weapons. If all nuclear weapon states agreed to No First Use, there would be no use. Also, non-nuclear weapon states should demand that they receive full guarantees from the nuclear weapon states that there will be no use under any circumstances against them.

3. **International Controls on Nuclear Proliferation.** All enriched uranium and reprocessed plutonium – military and civilian – and their production facilities (including all uranium enrichment and plutonium separation technology) should be placed under strict and effective international safeguards.

   Highly enriched uranium and reprocessed plutonium are the principal materials that can be used for the production of nuclear weapons. The facilities that produce and process such materials should be placed under strict and effective international safeguards, assuring that these materials are not diverted for weapons use. This should be a major responsibility of the United Nations Security Council and the International Atomic Energy Agency.

4. **Reconsideration of Article IV.** All signatory states should review Article IV of the NPT, promoting the “inalienable right” to nuclear energy for peaceful purposes, in light of the nuclear proliferation problems posed by nuclear electricity generation.

   Article IV of the NPT needs to be reviewed in light of Article VI obligations for complete nuclear disarmament. The questions to be posed are: How will the widespread use of nuclear power affect the obligation of the nuclear weapon states to achieve complete nuclear disarmament? With widespread use of nuclear energy, will complete nuclear disarmament be possible?

5. **Commence Negotiations on a Nuclear Weapons Convention.** All signatory states should comply with Article VI of the NPT, reinforced and clarified by the 1996 World Court Advisory Opinion, by commencing negotiations in good faith on a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons, and complete these negotiations by the year 2015.\(^\text{18}\)

\(^\text{18}\) In 2010, the Foundation called for the immediate commencement of negotiations on a Nuclear Weapons Convention and their completion by 2015. As yet, these negotiations have not commenced. At this point, we are calling for commencement of negotiations by 2015, but with more serious consequences for failure to do so.
The International Court of Justice found that there is not only an obligation to pursue good faith negotiations for nuclear disarmament in all its aspects, but to complete the negotiations. More than 40 years have passed, and these negotiations have not yet begun. We urge that these negotiations commence immediately, show tangible progress by the 2015 NPT Review Conference and be completed by the 2020 NPT Review Conference. The nuclear weapon states need pressure and incentives from the non-nuclear weapon states in order for them to act now to fulfill their Article VI obligations.

**LEADERSHIP, TIMING AND CONSEQUENCES**

Which countries will lead? Which countries will initiate negotiations for a Nuclear Weapons Convention? Should there be consequences for failing to commence negotiations and to complete them within a reasonable timeframe?

Leadership could come from the three countries that initiated the negotiations for the NPT – the US, UK and Russia (formerly the Soviet Union). The US led the way into the Nuclear Age and remains the only country to have used nuclear weapons in warfare. In his Prague speech in April 2009, President Obama said, “I state clearly and with conviction America’s commitment to seek the peace and security of a world without nuclear weapons.” He also spoke, somewhat ambiguously, about the US having a moral responsibility to act to allow people to live free of fear in the 21st century: “…as a nuclear power, as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it.”

If leadership does not come from the US, UK or Russia, then it must come from elsewhere. There must now be a movement to initiate these negotiations before the next NPT Review Conference in 2015, which will be held 70 years after the onset of the Nuclear Age, 45 years after the entry into force of the NPT, and 20 years after the parties agreed in 1995 to an indefinite extension of the treaty. The 2015 NPT Review Conference will be held just five years prior to the 2020 NPT Review Conference that will mark the 50th anniversary of the NPT’s entry into force.

The non-nuclear weapon states should be prepared to impose some consequences if negotiations for a Nuclear Weapons Convention have not begun by 2015. One consequence that would demonstrate their seriousness would be for non-nuclear weapon states to boycott the 2015 NPT Review Conference and those thereafter unless good faith negotiations for nuclear disarmament have begun. Combined with their boycott could be an alternative meeting of states to prepare for and begin negotiations for a Nuclear Weapons Convention.

The year 2020 will mark the 75th anniversary of the bombings of Hiroshima and Nagasaki. The Mayors for Peace in their 2020 Vision Campaign have called for the abolition of nuclear weapons by 2020. The Nuclear Age Peace Foundation supports their proposal and believes that, with good faith negotiations, it could be accomplished; or, at a minimum, the nuclear weapon states, both parties to the

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20 Ibid.
NPT and those outside the treaty framework, could be well on their way to achieving this goal. Global Zero, another civil society initiative, has set a somewhat longer timeframe of 2030 for the goal of abolishing nuclear weapons.22

CONCLUSION

Nuclear war would preclude a sustainable future. It would destroy the global environment, leading to the extinction of many forms of plant and animal life. Complex forms of life, such as humans, would be particularly at risk. A nuclear war fought with existing nuclear arsenals could leave the Earth uninhabitable for humans.

Leading atmospheric scientists, who warn of the utterly catastrophic effects nuclear war would have upon global climate and the environment, argue, “The combination of nuclear proliferation, political instability and urban demographics may constitute one of the greatest dangers to the stability of society since the dawn of humans. Only abolition of nuclear weapons will prevent a potential nightmare.”23 The scientists call for immediate reductions in US and Russian arsenals to a few hundred nuclear weapons to “reduce the possibility of nuclear winter and encourage the rest of the world to continue to work toward the goal of elimination.”24

It is necessary to ensure that nuclear weapons will not be used again as instruments of war, risking the destruction of civilization, nuclear famine and the extinction of most or all humans and other forms of complex life. Exposing the dangers of launch-on-warning nuclear policies and the dysfunctional and counterproductive nature of nuclear deterrence theory is essential for awakening policy makers and the public to the imperative goal of achieving a world free of nuclear weapons. It is a goal that demands boldness by all who seek a sustainable future for humanity and the planet. The non-nuclear weapon states that are parties to the Non-Proliferation Treaty have both the right and the responsibility to assert leadership in assuring that the nuclear weapon states fulfill their obligations for good faith negotiations for complete nuclear disarmament.

We welcome your feedback on this Briefing Paper. Please contact us at wagingpeace@napf.org or +1 805 965 3443.

23 Robock and Toon, op. cit., p. 81.
24 Ibid.

AUTHOR

David Krieger is a founder of the Nuclear Age Peace Foundation and has served as its president since 1982. He is a councilor on the World Future Council, chair of the Executive Committee of the International Network of Engineers and Scientists for Global Responsibility, and a member of the Executive Committee of the Middle Powers Initiative. His most recent book, with Richard Falk, is The Path to Zero: Dialogues on Nuclear Dangers (Paradigm Publishers, 2012).
APPENDIX A

Recommended Steps for Consideration by the Parties to the 2010 Non-Proliferation Treaty Review Conference

A successful 2010 NPT Review Conference will require reclaiming the progress made in the 1995 and 2000 NPT Review Conferences. To do this, the parties to the treaty should reaffirm their commitment to both nuclear non-proliferation and nuclear disarmament by agreeing to take the following actions:

Reduce the Role of Nuclear Weapons in Military Policy

- Take nuclear weapons off high-alert status, and end policies of launch on warning.
- Pledge No First Use of nuclear weapons against other nuclear weapon states.
- Pledge No Use of nuclear weapons against non-nuclear weapon states.

Nuclear Disarmament

- Provide an accurate public accounting by each nuclear weapon state of its nuclear arsenal, conduct a public environmental and human assessment of its potential use, and devise and make public a roadmap for going to zero nuclear weapons.
- Negotiate major reductions by the US and Russia of their nuclear arsenals to below 500 nuclear weapons each, deployed and reserve, by the year 2015.
- Commence negotiations by all states party to the NPT, as required by the treaty, for nuclear disarmament, specifically, for a Nuclear Weapons Convention for the phased, verifiable, irreversible and transparent elimination of nuclear weapons, and complete these negotiations by the year 2015. The opening session of these negotiations could be held in Hiroshima, the first city to have suffered nuclear devastation. The final session of these negotiations could be held in Nagasaki, the second and, hopefully, last city to have suffered atomic devastation.
- Reallocate the funds spent on nuclear weapons to meeting the United Nations Millennium Development Goals, including ending poverty and hunger and providing basic preventive health care and primary education to all of the world’s children.

Arms Control Measures

- Complete ratification of the Comprehensive Test Ban Treaty (CTBT) so that it can enter into force.
- Negotiate a Fissile Material Cutoff Treaty (FMCT) to assure international control of all nuclear weapons materials.
- Negotiate Nuclear Weapon-Free Zones in the Arctic, Central Europe, the Middle East and Northeast Asia, and complete a Southern Hemisphere Nuclear Weapon-Free Zone.
- Negotiate a ban on space weaponization.
- Negotiate limits leading to a ban on long-range missiles.
- Negotiate limits on the deployment of missile defense systems.
Preventing Proliferation

- Place all enriched uranium and reprocessed plutonium – military and civilian – and their production facilities (including all uranium enrichment and plutonium separation technology) under strict and effective international safeguards.
- Achieve universal adherence to the Additional Protocol, strengthening the safeguards agreement with the International Atomic Energy Agency, by countries party to the NPT.
- Peacefully resolve the existing proliferation issues with North Korea and Iran.
- Take all necessary steps to assure that nuclear weapons are not obtained or used by non-state extremist groups.

Nuclear Power

- Conduct a global assessment by a United Nations Commission of Experts of the impact of the expansion of nuclear power generation on nuclear non-proliferation and disarmament efforts.
- Review Article IV of the NPT by all signatory states in light of the proliferation problems posed by nuclear electricity generation.
- Create an international fund in support of the International Renewable Energy Agency’s plans to help developing countries to use alternate sustainable energy forms rather than nuclear energy.
THE FOUNDATION
The Nuclear Age Peace Foundation is a non-profit, non-partisan international education and advocacy organization. It has consultative status to the United Nations Economic and Social Council and is recognized by the UN as a Peace Messenger Organization.

Founded in 1982, the Foundation is comprised of individuals and organizations worldwide who realize the imperative for peace in the Nuclear Age.

VISION
Our vision is a just and peaceful world, free of nuclear weapons.

MISSION
To educate and advocate for peace and a world free of nuclear weapons and to empower peace leaders.

ADVISORY COUNCIL
*Nobel Laureate