

# The Changing Landscape of Nuclear Security Philanthropy: Risks and Opportunities in the Current Moment<sup>1</sup>

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## Key points

- ⦿ The funding gap left by the MacArthur Foundation’s exit from the nuclear field will begin after 2023, on the order of \$5 million a year, accounting for new entrants to the funding field (like Longview);
- ⦿ Backfilling the gap left by MacArthur is not enough; nuclear security remains highly neglected;
- ⦿ MacArthur’s exit provides an opportunity for funders and grantees to reshape the entire nuclear security landscape; and
- ⦿ “Big Money” matters — large multi-year commitments provide benefits and flexibility for innovative approaches that small, *ad hoc*, and restricted grants do not.

## Introduction

Last June, the MacArthur Foundation — one of the largest philanthropic funders of nuclear security-related work — [announced](#) that it would withdraw from the field after a three-year \$30 million “[Capstone](#)” project. Scholars and practitioners described the move as “[a big blow](#)” to arms control, happening at “[the worst possible time](#).” The background of this decision and the reaction of the field have been covered in detail elsewhere (e.g. [Vox](#), [Politico](#)), and will not be repeated in this report.

However, as new funders consider moving into the space, key questions remain:

- ⦿ How will MacArthur’s exit affect the field — both for remaining and prospective funders, as well as for the remaining nuclear experts?

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<sup>2</sup> While Alex is using her 15+ years in philanthropy, including at the Peace and Security Funders Group, and her knowledge as a recognized nuclear expert, she is not writing or speaking on behalf of the nuclear security philanthropic or expert communities in this piece. All views are her own.

- ⦿ Were previous levels of funding sufficient, or is nuclear security a generally neglected field?
- ⦿ What specific gaps remain?
- ⦿ What lessons can funders draw about the optimal timing of philanthropy? How should funders think about similar shortfalls in the future?

This report is intended as a guide to these questions from an insider's perspective; the author of this piece has a birds-eye view of the changing landscape of nuclear philanthropy and access to large amounts of data, including [the Peace and Security Funding Map](#).

This report argues that now is a pivotal time for [other funders](#) to step up to the challenge of advancing nuclear security. The exit of the field's largest funder appears likely to leave a major funding gap after 2023. Moreover, I can say with very high confidence that reducing the possibility of a nuclear strike is a cost-effective and high-leverage way to reduce overall catastrophic and existential risks imperiling humanity over the long-term, as well as averting death and suffering of people today (for instance, by reducing the risk of strategic-level biological warfare). Finally, MacArthur's exit, while a challenge to the field in the near-term, may be an opportunity to rethink and reshape the entire landscape of nuclear security.

## The Changing Landscape: Increased Threats and Decreased Funding

### While the Threat Has Increased...

Longview's [Carl Robichaud](#) reminds us that even if nuclear war did not pose a direct extinction threat, it could lead us down a dark path and amplify x-risks from other technologies. The first nuclear war is unlikely to be the last; the aftermath of a nuclear exchange would create pressures on national leaders to do anything necessary to ensure safety, including an increased surveillance state (multitudes greater than that we experienced after the 9/11 terrorist attacks), or an increased reliance on artificial intelligence (AI) in ways that amplify the risks of misalignment. Breaking the nuclear taboo could open the door to [strategic-level biological warfare](#), too.

Since 2015, five factors have increased nuclear risk:

1. Russia's full-scale invasion of Ukraine has triggered sanctions, isolation, miscalculation, and the first credible threats to use nuclear weapons by a superpower in decades. Based on my decades of experience and my professional expertise, I can say with high certainty that Russia's nuclear

doctrine has devolved into reckless immaturity. Its nuclear security appears likely to erode an already weakened economy and Russian isolation has us wishing for [Cooperative Threat Reduction](#) 2.0, which partisan politics prevents.

2. On Feb. 5, 2026, [New START](#) — a treaty between the U.S. and Russia — will expire. It cannot be extended, and there's no prospect for a follow-on treaty, given the current geopolitical climate. The current war in Ukraine and upcoming U.S. presidential elections will further reduce the likelihood that the U.S. and Russia would begin negotiating a follow-on treaty. It's certainly possible that a stalemated Ukraine war stretches into this post-treaty period, increasing the risk of nuclear miscalculation. So, already at odds, neither the U.S. nor Russia will have constraints or information on the other's nuclear activity.
3. In the coming years, experts are warning openly about a [potential U.S.-China conflict](#) over Taiwan. I have little confidence for a U.S.-China conflict *not* to involve threats of nuclear use far beyond what Russia's war in Ukraine presents, and [China's nuclear program is growing](#).
4. Concurrent with tensions with Russia, JCPOA ([Joint Comprehensive Plan of Action](#), or the so-called Iran nuclear deal) reconstitution is [unlikely](#), so Iran is unconstrained. Iran is [currently only 3-6 weeks](#) from having sufficient nuclear material for a bomb; its newly-elected hardliners are dug in; and Israel is [resurrecting threats](#) to initiate war to stop Iran from getting a nuclear weapon. Given its long standing security relationship with Israel, it appears likely that the U.S. would get pulled into this war.
5. North Korea's [nuclear stockpile continues to grow](#) and its authoritarian dictator Kim Jong Un has [often threatened](#) use of nuclear weapons. [According to experts](#), Kim remains isolated, paranoid, and angry after the collapse of Trump-era negotiations. Nuclear scholar Jeffrey Lewis' scary "[speculative novel](#)" lays out how a nuclear war can start in an afternoon through miscalculation, based on misperceptions already held by both sides' leaders.

For all of the above challenges, existing funders have been supporting myriad efforts to reduce nuclear risks through research, policy analysis, communications training, public engagement, and more. A quick search of the [Peace and Security Funding Map](#) details the 106 grants made the past two years for these purposes.

#### ... The Funding Has Decreased

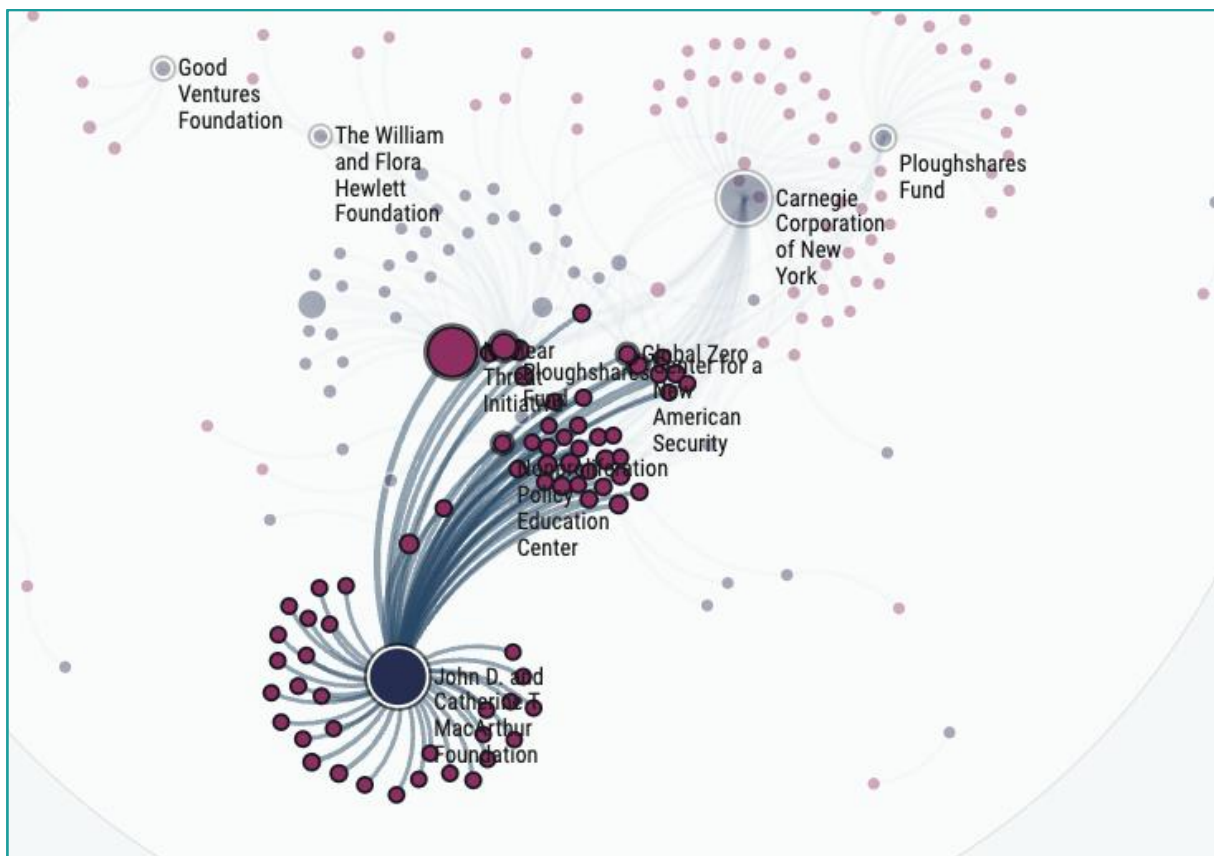
MacArthur's nuclear-related funding between 2014 and 2020 averaged approximately \$15 million a year, [according to data](#) by the Peace and Security

Funders Group (PSFG) and Candid. Longview Philanthropy [announced](#) that they expect to give around \$10 million a year in nuclear security, as part of a new program co-led by Carnegie Corporation’s former nuclear program officer Carl Robichaud. Moreover, MacArthur expects its [Capstone](#) project to make grants of around \$10 million a year until 2023. Thus, apparently, the total amount of money in the field will not change much until after 2023, at which point there could be a shortfall of approximately \$5 million *ceteris paribus* (see [Key Uncertainties](#)).

The numbers alone, however, are misleading. A visualization (Figure 1) of the funding landscape with PSFG’s data — looking at only nuclear-related issues between 2014 and 2020 — shows three things:

1. MacArthur was one of the largest funders of the space, along with the Carnegie Corporation of New York;
2. MacArthur provided significant support to some of the largest players in the field; and
3. MacArthur provided funding to a number of organizations that had few major funders (the “southwestern” corner of the figure).

**Figure 1: MacArthur was a “keystone” in the nuclear funding landscape**



To view an interactive version of this funding constellations graph, click [here](#).

Prospective nuclear funders should ask themselves two questions:

1. Of organizations that relied disproportionately on MacArthur for support, which are most endangered? Are any of these doing highly effective work? If so, the time to step in is now.
2. Of organizations that can “keep the lights on” thanks to other funders, do any especially promising programs — or programs that fit your theory of change — appear in danger of being cut?

### Key Uncertainties

- ⦿ Will Longview’s funding increase in the next three years? If so, by how much?
- ⦿ Will the other major funders remain in the field? Will new funders enter?
- ⦿ Will the other (much smaller) nuclear funders shift focus or strategy based on these larger financial challenges to the field?

### Backfilling MacArthur Isn’t Enough

According to PSFG’s [data](#) — the only database for peace and security funding — nuclear issues are funded at approximately \$47 million per year by private philanthropy. Approximately \$15 million of this came from the MacArthur Foundation. I have very high confidence that the effect of MacArthur’s withdrawal will be a massive, potentially irreversible, brain drain, along with an accompanying reduction in policy advocacy power and effectiveness, at a time when the threats merit an increase in staffing and power-building.

The soon-to-be \$42 million spent annually by private philanthropy is dwarfed by the \$63.4 *billion* spent annually by the [United States Government](#). While governments invest heavily in nuclear weapons capabilities, their goals are driven by narrow national security considerations that can be in conflict with universalist and [longtermist](#) considerations. As in other issue-areas, such as animal welfare and space governance, there needs to be a check on governments. This is even more true when governments (indeed, often single individuals) have the power to launch a nuclear war that affects us all.

Private philanthropy supports objective research and analysis, public education and mobilization, and innovation and risk-taking. “Big money,” like that given by MacArthur, which is [multi-year](#), significant in size, and generally flexible, matters.

MacArthur has been a leader in the philanthropic sector, [employing best practices](#) and continuing to [push itself](#) and its colleagues to do more, better. Without this big money, it is hard to be innovative or take risks, attract talent, or think strategically.

The point, though, isn't to simply backfill exactly [what and who](#) MacArthur is no longer funding; rather, we need to think creatively about how we use this make-or-break moment to question what we can do differently going forward. This will be most effective if funders consider support for diverse approaches, asking not simply whether they agree with any one particular approach taken by an organization, but rather whether it has the potential to contribute to a disruption to the governing paradigm that drives the threat of nuclear war.

### **Key Uncertainties**

- ⦿ How will government funding for nuclear security and nuclear arsenals change, based on evolving security threats, and is there a role for private philanthropy to help shape this?
- ⦿ Will new and creative ideas emerge and be allowed to blossom, given the diminishing funding? Will experts move to different fields?

### **A “Pivotal Moment” to Reshape Nuclear Philanthropy**

The exact magnitude of the funding gap left by MacArthur is less salient than the overall neglectedness of the field. Nonetheless, amidst the turmoil of this major funder leaving, there is opportunity to rethink and reshape the field. Some groups [have argued](#) that philanthropists ought to focus on the *timing* of giving, perhaps engaging in “patient philanthropy”—investing their funds until a time when they can have more impact. “Pivotal moments” are fleeting opportunities for outsized impact. In the case of nuclear philanthropy, now is a pivotal moment: funding commitments made in the next three years will shape the field for decades to come. Thus, funders who wish to reshape the field to become more effective and more oriented towards global catastrophic risks, for example, should consider that the field-building returns to investment are unusually high now.

### **Taking Risks and Generating New Ideas**

Not too much has changed since the [Nuclear Freeze movement](#) in the 1980s. There are a few [under-resourced grassroots groups](#); a small number of [think tanks](#) or [centers](#) focused on nuclear policy research and analysis; and a small handful of [funders](#). However, despite this consistent under-resourcing, because of the collective commitments from a number of passionate individuals, the nuclear

community of experts has a strong track record of contributing to nuclear risk reduction. Recent successful policy examples include the [Nuclear Security Summit](#) process; the [JCPOA](#); and [New START](#). The innovations inherent in these successful campaigns have not gone viral. Imagine what this community of actors could do if it were larger, more diverse, better funded, and more creative.

Groups leading the pack to push the envelope and take risks, attract new and diverse talent, and think creatively include: [Global Zero](#) and [Beyond the Bomb](#) (soon to merge), [Bombshelltoe](#), [Nuclear Threat Initiative](#), [NSquare](#), [Inkstick](#), [Council on Strategic Risks](#), [ICAN](#), and [Ploughshares Fund](#). Of course, there are many others that are also worthy of investment.

More organizations could join these efforts — and larger-scale, more creative work could be done — if they were given the resources necessary to test new waters. And some organizations — as in any sector at inflection points such as this — might find this the right time to either merge with peers or wind down their operations.

Some funders have a hard time of letting go of their favorite grantee organizations because of ego, legacy, inertia, reputation, relationship with key experts at the organization, and/or other reasons. The funder can keep a grantee on “philanthropic life-support” for many years, by being the organization’s sole funder but not giving them enough resources to really meet their potential. As someone who has successfully shuttered [an organization](#) (an unusual thing to do in the nonprofit sector), I know it’s no easy feat. However, a pivotal moment, like the one we find ourselves in today, affords us the time to take stock of our mission, our accomplishments, and future prospects for continued effectiveness given a changing context, and decide that perhaps it’s best to gracefully wind down operations.

Nuclear funders have been sharing information and collaborating for decades. This small but mighty community of dedicated, passionate experts have continued to support one another in the wake of MacArthur’s announcement. Naturally, however, MacArthur’s exit puts a lot of pressure on the remaining funders to ensure that they are even more strategic with their resources and in more (and deeper) conversations both with one another and with the nuclear expert community. It also means that this group — collectively and individually — must decide how to spread the existing small amount of money remaining in the field. These conversations have been happening for decades — MacArthur isn’t the [first](#) nuclear [funder](#) to exit — and will continue to happen within PSFG’s Nuclear Funders Working Group, as well as bilaterally amongst the funders themselves.

New funders are welcome to [apply for membership](#) to PSFG in order to join their colleagues in these conversations.

## Key Uncertainties

- ⦿ Which organizations will choose to shut their doors or downsize (if possible) given MacArthur's exit?
- ⦿ Do new entities need to be created or are the ones in the nuclear ecosystem able to adapt to such vastly changing circumstances?
- ⦿ Will new funders rise to the challenge of this pivotal moment, or shy away from the immensity of it?
- ⦿ How well can existing nuclear entities absorb a potential large influx of new funding?
- ⦿ What impact does a huge injection of funds have on a field, especially when the intention is for that injection to be temporary, like MacArthur's "Big Bet?"
- ⦿ How should funders think about large injections and what that does to a field? For example, do organizations become complacent because they expect and rely on a larger influx of funds?
- ⦿ How will existing nuclear funders react to new funders? While it's listed here as an "uncertainty," past experience with the PSFG's Nuclear Funders Working Group — the home of all nuclear-focused funders — gives me high confidence that newcomers into the space will be welcomed with open arms (as was Longview several years ago). What's less certain is how existing funders will recalibrate their giving based on new funders' strategies. For example, if a new funder comes and wants to focus exclusively on grassroots activism around fissile material security, will those existing funders who already have that strategy focus on a more neglected strategy (e.g., congressional engagement) or issue (e.g., nuclear disarmament)?

## Nuclear Security: Tractable Sub-Fields and Interventions

One of the biggest obstacles to engaging with nuclear challenges is that they require policy change, not only social or industry change. Policy change, in turn, requires creating, concentrating, mobilizing, and guiding political power. The challenges involved with policy change are that it is slow-going, takes political capital, and isn't easily quantifiable. In addition, we're talking about global policy change, across all nine [countries that have nuclear weapons](#); it's very challenging to have consistent progress in one state without similar moves in others.



This makes it daunting for the public and for donors to tackle and remain engaged on nuclear issues. But it's not impossible. In fact, with the right high-leverage interventions, this moment affords the field, and those wanting to enter it, an opportunity to rethink strategy.

### **Building Political Power: Money and Voices**

The expression “Go big or go home” has never been more apt than for the nuclear security philanthropic space. Donors in this space need to begin using all the tools at their disposal to affect the change they want to see. And given the risks of nuclear war, we need to do this more boldly than ever before — by thinking beyond funding only to [501\(c\)\(3\) organizations](#). This includes donating to political action committees (PACs); funding lobbying; resourcing massive, global advocacy campaigns; and supporting technological and policy innovation. Currently, those concerned with nuclear security — and peace and security issues writ large — don't have deep enough pockets, a high enough risk tolerance, or broad enough organizational leeway (as charitable foundations with specific missions) to fund politics- or power-focused initiatives.

In a [recent interview](#), Sam Bankman-Fried nailed it when he identified the importance of political power to affect change. This understanding and deep, decades-long investment has allowed [several donors](#), for example, to shape U.S. policy around their values. Indeed, realizing the power of political donations, Bankman-Fried also [jumped into the fray](#) in the 2022 election cycle.

Many business entities and [interest groups](#) in the U.S. [allocate funds to presidential elections](#) because every American president is responsible for requesting and ultimately directing about \$20 trillion of government spending and associated policies in a four-year period. Most recently, PACs in the 2019–2020 election cycle spent \$12.9 billion to help shape the outcome of the presidential election. The situation is similar for congressional and state candidates, and associated policy lobbying. For issues where there's a government monopoly on decision making, like nuclear issues, almost every serious entity engages in sustained, enduring, and robust policy advocacy campaigning ([even Mark Zuckerberg](#) on tech regulations, who tried to avoid it).

The opportunity for new funders is that the nuclear community only has a basic, under-resourced version of this with episodic focus. The only two nukes-focused groups doing this work that I know of are [Ploughshares Fund](#) and [Council for a Liveable World](#). While [Foreign Policy for America](#) and [J Street](#) have some nukes-focused work, it's a smaller part of their overall focus.

In addition to (or instead of) funding PACs and/or lobbying, donors can build political power through funding mass mobilization efforts (including through 501(c)(3) donations). Mobilizing citizens to pressure their elected representatives to change policy requires an accurate picture of what moves people to action (including the [right messages](#) and messengers), and sustained opportunities for citizens to take action. So-called [“grassroots” efforts take time and money to build](#).

In a campaign of any sort, professionally-run public relations (PR) initiatives shape the impressions of voters and the media, and influence the broad public debate on issues in ways that provide concrete upstream value to political and policy advocacy campaigns. But traditional philanthropy neglects this area. In my 15 years working in the nuclear field, I can think of only one instance when a PR firm was hired to help nuclear security experts ([successfully](#)) message their goal (New START ratification). Hiring a top PR firm to work with nukes groups to launch a sustained national or, ideally, [global campaign](#) on the importance of nuclear security could be quite impactful, but hasn't been funded at scale. Several groups have [successfully](#) tried this in an *ad hoc* manner, but more needs to be done to move the needle.

In part, the challenge is that many private donors seek tax deductions for their philanthropy; lobbying and donations to PACs aren't tax-deductible. And in part and by its very nature, planning for the long-term doesn't yield immediate, tangible results. This can be frustrating for those used to quick returns on their investments or those needing to report to a board of trustees on results from the quarterly or annual grantmaking docket. Taking a chance on new grantees or new initiatives is oftentimes seen as too risky for traditional philanthropy, especially when resources are tight (as they are in the peace and security sector).

Finally, even if policy change yielded quantifiable results, many of these would be based on correlation not causation. Few politicians would readily admit that it was because of a grassroots lobbying effort, for example, that they changed their minds on a nuclear treaty. One can make strong inferences about policymakers' motivations, but it's hard to get them “on the record” about what really shaped their votes or why certain policies were written the way they were.

### **Emerging Technologies**

While much of the funding around emerging technologies comes from [Carnegie Corporation](#) and [Open Phil](#), MacArthur's exit will put a squeeze on the funding field, pushing remaining funders to reconsider whether to continue to fund emerging

threats, or focus on [existing threats](#). Questions for new funders to consider include:

- ⦿ What are the effects of [military AI applications](#) on nuclear command and control and the risks of great power conflict?
- ⦿ How (if at all) can new [techniques in probabilistic forecasting](#) inform our understanding of nuclear risks?
- ⦿ What can advances in climate modeling tell us about the probable length and severity of nuclear winter?

Will funders feel free to experiment with their grantmaking or will they protect cornerstone experts, projects, and entities from going under? Will they see this moment as a zero-sum one based on resource scarcity, or more expansively as an opportunity to share focus on the challenges of today and those of tomorrow? New funders may very well feel excited about funding emerging technologies vis-a-vis nuclear security, but if they also don't assess the projects, experts, and entities that already exist in the field, they may have to reinvent a (very expensive) wheel. It's a lot harder to recreate an entire field — to start from scratch — than to take the time to map what's working with what we have, and what needs updating or a refresh. Put simply, funders shouldn't discount existing work because they want to fund a particular project over the health of an ecosystem.

### **Key Uncertainties**

- ⦿ How effective is lobbying in changing political behavior? Are national security-related issues more or less likely to be tractable?
- ⦿ How much money is enough? Do funders need to spend as much or more than defense contractors spend on lobbying? In 2020, for example, Lockheed Martin alone [spent \\$12.8 million on lobbying](#) for defense in general. Defense contractors aren't just lobbying to build more or maintain existing nuclear weapons, but this figure gives us a general sense of the kind of money spent by just one firm on its overall "lobbying" strategy. A 2021 [ICAN report](#) found that every \$1 companies spent on lobbying yielded \$239 in nuclear weapons contracts.
- ⦿ How do we measure positive progress towards policy change? (This is both the *sine qua non* and white whale of policy-related funding.)
- ⦿ Will funders return to "bread and butter" (traditional) nuclear philanthropy or experiment with funding new or risky endeavors?

## Conclusion

In his 2015 book *My Journey at the Nuclear Brink*, former U.S. Secretary of Defense William Perry stated, “Today, the danger of some sort of a nuclear catastrophe is greater than it was during the Cold War and most people are blissfully unaware of this danger.” Perry is a Ph.D.-level mathematician, invented stealth technology, and analyzed intelligence for U.S. President John F. Kennedy during the Cuban Missile Crisis. He’s not prone to hyperbole, nor is he wrong: tensions between nuclear states have rarely been higher and resources have not been lower in recent memory. Now is a high-leverage pivotal moment for new funders to enter the nuclear security field and reshape it into one that’s maximally effective now and for generations to come. Effective philanthropists know that, just as some organizations are orders of magnitude better at doing good than other organizations, some times in history are better for having a high impact with one’s donations than other times — this is one of the underlying insights of [patient philanthropy](#). In nuclear security, in the wake of MacArthur’s exit and amidst renewed tensions between the great powers, now is such a time.

## Appendix

Using even [one nuclear weapon](#) is bad; using thousands is [catastrophic](#). If more than a small number of cities are destroyed in a wider [nuclear exchange](#), this threatens a [nuclear winter](#) that would affect us all through abrupt climate shifts, crop failures, cross-border refugee flows, and more.

Now, imagine the [not-unlikely scenario](#) of a nuclear exchange between India and Pakistan (with over 300 nukes between them). The results of an exchange of only a hundred warheads — according to a [2019 study](#) — are global: “Surface sunlight will decline by 20 to 35%, cooling the global surface by 2° to 5°C and reducing precipitation by 15 to 30%, with larger regional impacts. Recovery takes more than 10 years. Net primary productivity declines 15 to 30% on land and 5 to 15% in oceans threatening mass starvation and additional worldwide collateral fatalities.” [Other models](#) of the climatic effects of regional nuclear exchange find smaller, more limited cooling, but there remains [high uncertainty](#) in this field (which greater funding could help to reduce).

Currently [more than 13,000 nuclear weapons exist, including 3,000 on alert](#), waiting to be launched at the discretion of a select few world leaders. The human race might not be fully wiped out in the first instance, but I can say with very high confidence that life as we know it would cease to exist and humanity’s future existence would hang in the balance.

A large-scale use of nuclear weapons has the potential to disrupt the technological, agricultural, and intellectual foundations of modern society to say nothing of the extraordinary loss of human life possibly numbering in the [billions](#), along with the majority of animal and plant life.

Additionally, because only nine countries have nuclear weapons and nuclear war will affect the entire world, nuclear weapons are inherently unjust. The security of 186 non-nuclear countries and their populations are at the whims of the elite leadership of nine nuclear weapons states. In America ([approximately 5,000 nukes](#)), for example, the President has the sole authority to launch a nuclear weapon; this would most certainly start a nuclear exchange (likely with China, Russia, or North Korea — America's main adversaries, all nuclear armed states), which would affect billions of people, flora, and fauna the world over for generations to come.

What's more, nuclear use risk appears to be increasing, rather than decreasing. Although the world contains [fewer nuclear weapons than during the Cold War](#), there were [more deployed warheads](#) last year and all nine nuclear countries are modernizing or increasing their arsenals; there are [fewer negotiated constraints](#) between nuclear states on these weapons (i.e., there are [fewer arms control treaties](#) or agreed limits on nuclear-related issues); there's an [increased interest by both Russia](#) and [the U.S.](#) in low-yield nuclear weapons; and there's an increasing [number](#) of [potential conflicts](#) between [nuclear weapons states](#). The war between Russia ([approximately 4,500 nukes](#)) and Ukraine puts a fine point on this, especially as Russian President Putin threatened the use of [nuclear weapons](#).