

At this very moment, thousands of thermonuclear weapons stand on high alert, prepared to be launched in minutes. If used, they may kill tens or even hundreds of millions via fire and radiation. Worse still, these weapons risk inflicting a "nuclear winter," blocking daylight for years and doubtlessly killing billions more in the aftermath.

During the Cold War, the US and USSR each constructed tens of thousands of nuclear weapons. At various points they were almost used, either accidentally, or deliberately. Fortunately, the cease of the Cold War caused major arsenal reductions .

Recently Russia have invaded Ukraine, killing Thousands of civilians , Despite sanctions given to Russia by international Communities, the inversion seems not to end .

Efforts to lessen nuclear risk basically require influencing the military and foreign policy establishments in countries with nuclear weapons, encouraging either unilateral or multilateral policies that benefit all concerned parties. There are a variety of approaches to attain this, which includes policy research, political lobbying, track II diplomacy, and public outreach campaigns.

Philanthropists could work to enhance societal resilience in opposition to the potential chaos and famine that a nuclear war could cause.

Importance of nuclear war reduction

When looking at how vital a cause is, we are able to examine its scale, neglectedness, and tractability. In this case, that means working out:

- Scale: How terrible would a nuclear war be, and how likely is it to occur?
- Neglectedness: How much work is already being done to lessen nuclear war? The more overlooked a cause is, the less difficult it is for an individual or small community to make a difference.
- Tractability: How hard is it to lessen the risk of nuclear war?

what would the scale of nuclear war be ?

To understand the scale of nuclear war as a potential issue, we need to understand both:

- How many deaths a nuclear war might cause.
- How likely a nuclear war is to occur.

Estimating the number of deaths

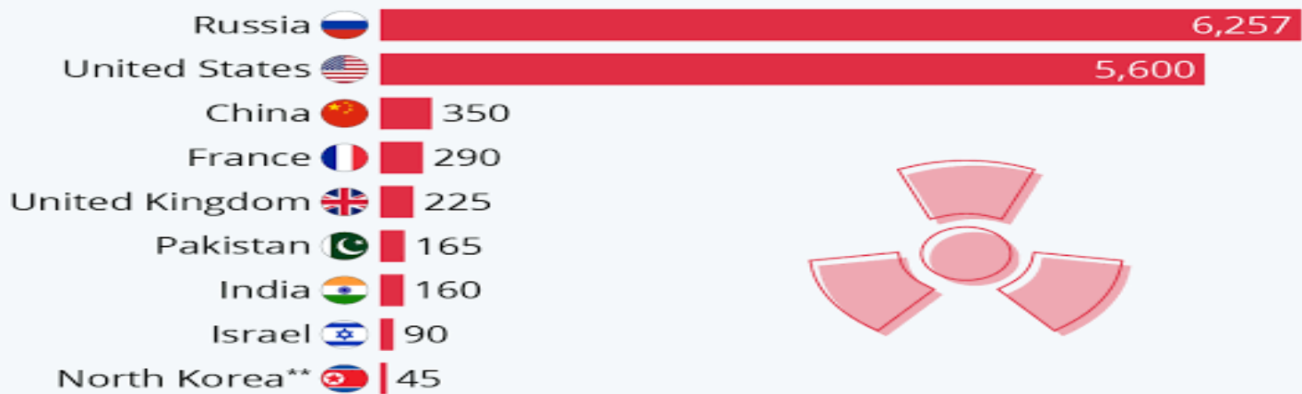
A complete nuclear exchange between the US and Russia, the countries with the greatest nuclear arsenals on the planet, could kill roughly 50 million people via the direct effects of the blast and fallout. While an India–Pakistan or US–China exchange would see a smaller quantity of nuclear weapons exchanged, they would still likely lead to tens of millions of deaths from the direct effects. These death tolls would automatically place such wars amongst the worst wars in human history.

Indirectly, a full nuclear exchange would lead to widespread firestorms, which could potentially inject huge amounts of soot into the stratosphere. This soot would block sunlight for some of years, reducing global temperatures and precipitation in a "nuclear winter."^[1] Such an event could potentially kill billions via famine, and, in excessive scenarios, trigger full societal collapse and possibly even cause human extinction. It should be noted, however, that the likelihood and severity of a nuclear winter scenario is controversial.

Current nuclear arsenals are only a fraction of their Cold War peak (see below). However, technological advancement and economic growth since the Cold War mean that major powers could build up to and beyond their nuclear arsenals pretty quickly. Therefore, an arms race between major powers could potentially lead to the deployment of far more nuclear weapons, risking both greater death tolls and an increased risk of nuclear winter.

The Countries Holding The World's Nuclear Arsenal

Estimated global nuclear warhead inventories as of October 2021*



* Includes deployed, stockpiled and retired warheads awaiting disarmament

** Warheads that could potentially be made from available fissile material

Source: Federation of American Scientists



statista

Estimated chance of nuclear war

Estimating the chance of a nuclear exchange is very challenging. Since World War II, no nuclear weapon has ever been used in anger, suggesting that the historical risk cannot have been greater than a couple percent per year. Using information from historical near-misses, one estimate of the historic risk of a US-Russia accidental war was 0.9% per year, but with large uncertainty, [3] while leading national security experts, when polled about the next 25 years, recommended an annual risk of 0.3% for a nuclear conflict killing more than World War II (roughly 80 million people). It's unclear how seriously we should take any of these numbers, but risks of about a few tenths of a percent per year seem

plausible.

How we can reduce nuclear war

As noted earlier, reducing the risks from nuclear war usually requires us to influence the policies of the major nuclear powers. There are many specific policies one ought to push for, but they're often controversial. Nevertheless, some plausible desires include:

- reducing the sizes of Arsenal .
- Removing specific destabilising weapons (or preventing their construction), including nuclear-armed cruise missiles.
- Committing to "No first use" policies
- Committing to not target communications networks, cities, or nuclear power stations.
- Preventing proliferation of nuclear weapons or materials to additional nations.
- Reduction of stockpiles of fissile material
- Improving relationships between nuclear powers.

