

Attempts to mitigate risk: Nuclear non-proliferation, arms control and disarmament

First efforts to contain and eliminate the nuclear threat began immediately after the atom bombs were dropped on Hiroshima and Nagasaki. And these efforts have continued to this day. In principle, bilateral, multilateral and universal agreements can have two objectives:

One is disarmament, which is about the partial or total destruction of nuclear weapons and/or their delivery systems (missiles, aircraft, ships and submarines). Disarmament can limit or even eliminate the number of nuclear weapons that can potentially be used.

The other is arms control. With regard to nuclear weapons, arms control means managing the arms processes in ways that reduce the risks of a nuclear build-up, avert the danger of a nuclear war breaking out, and avoid unnecessary arms spending. It is a question of limiting, eliminating or banning certain categories of weapons and/or certain military activities (in certain areas, for instance) as well as preventing the nuclear weapon-relevant commodities from being passed on. In this respect, measures to improve transparency can contribute to building political trust between potential adversaries. Arms control can but does not have to involve the destruction of nuclear warheads and/or delivery systems. It can also lead nuclear powers to change course technologically, moving from older to newer systems. And it can aim at preventing the proliferation of nuclear weapons.

Since 1945, arising peace movements and the international public have repeatedly urged governments to implement arms control and disarmament measures, particularly for nuclear weapons. One stumbling block was and still is the nuclear powers' belief that their security ultimately depends on the possession of nuclear weapons and the United States' insistence on maintaining its superiority in defence technology at all costs.

The history of nuclear arms control and disarmament

In the late 1940s, there were efforts to prevent the spread of nuclear weapons at the dawn of the nuclear age, but they failed. The United States was willing to give up its nuclear weapons only if comprehensive control of all nuclear facilities could be guaranteed worldwide. The Soviet Union, on the other hand, was demanding in 1946 a ban on nuclear weapons and the scrapping of all arsenals within three months, while supporting only limited controls on nuclear facilities. In the following two decades, against the background of the Cold War, an unbridled quantitative and qualitative build-up of the United States' and the Soviet Union's nuclear weapons holdings took place. At the same time, Great Britain (1952), France (1960) and China (1964), that is the key allies of the then nuclear superpowers, were developing their own nuclear weapons.

Nevertheless, after a while, talks did lead to the first arms control agreements. Realizing the pressure of growing protests against the radiation being released from nuclear test blasts, the United States, the Soviet Union and Great Britain concluded the Partial Nuclear-Test-Ban Treaty in 1963, which banned nuclear weapons tests in the atmosphere, in outer space and under water. Still, France and China continued to carry out their tests above ground until 1974 and 1980 respectively.

These agreements, however, did not hinder the nuclear arms race between the United States and the USSR. Subterranean nuclear tests, which also released smaller quantities of radioactivity, were still permitted. Not until 1996 did the states enter into the Comprehensive Nuclear-Test-Ban Treaty. Although the comprehensive agreement is being observed by all five of the "old" nuclear powers, it has not yet formally entered into force. In 1999, the US Senate voted against

its ratification. India, Pakistan and North Korea have not signed the Treaty and have also conducted subterranean nuclear tests.

Nuclear Non-Proliferation Treaty

In the 1960s, there were growing concerns that more and more states would acquire nuclear weapons. The five treaty-acknowledged nuclear weapons states (United States, Soviet Union, Great Britain, France and China) at that time, however, had an interest in upholding their monopoly for as long as possible. At the same time, many countries saw the unbridled expansion of nuclear stockpiles by the existing nuclear powers as a threat to peace. It was in the context of these conflicting interests that, in 1968, the Nuclear Non-Proliferation Treaty was concluded. The non-nuclear members undertook not to acquire nuclear weapons and to have their civilian nuclear facilities inspected by the International Atomic Energy Agency (IAEA). The United States, Russia and the United Kingdom (signing the Treaty in 1968) and China and France (not following suit until 1992) are required, in the Treaty's rather vague wording, "to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control."

At the same time, the Non-Proliferation Treaty foresees the cooperation between the parties to the Treaty in the peaceful use of nuclear energy and affirms the "inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes". In 2012, 189 countries had joined the Treaty. In 2003, North Korea declared its withdrawal. India, Pakistan and Israel have never acceded to the Treaty. The treaty was originally conceived to apply only for a limited duration of 25 years, but the states parties agreed in 1995 to extend it indefinitely.

The reluctance of nuclear-weapon states to wind down their arsenals has been a constant cause of disagreement among members at treaty review conferences, which are held every five years. Another ongoing topic is the demand to tighten compliance control mechanisms.

Treaties on nuclear arms control

Since 1969, the United States and the Soviet Union have been negotiating on the quantitative and qualitative restrictions of their nuclear arsenals. Talks started in the context of "overkill capacity", as stockpiles had long reached a point at which the destructive potential was many times greater than anything needed to wipe out an enemy. The first agreement was reached in 1972 with the signing of the Anti-Ballistic Missiles Treaty, an arrangement to limit missile defence systems and thus prevent a new race between offensive and defensive weapons. (The United States pulled out of this Treaty in 2002.) Since 1972, there have been several agreements on strategic nuclear arms reduction as part of a process that began in the era of East-West conflict and has continued since the break-up of the Soviet Union.

More recently, the United States and Russia concluded, in 2010 what is called New START (New Strategic Arms Reduction Treaty), the follow-up to START I. While START I of 1991 still foresaw the scaling-down of nuclear weapons holdings to less than 6000 warheads and 1600 strategic delivery systems on either side, the new Treaty includes the provision that warheads mounted on strategic delivery systems (land and submarine-based intercontinental missiles and long-range bombers) are to be reduced to a maximum of 1550 on either side by 2017. The number of strategic means of delivery is also restricted to 800 on either side of which no more than 700 may actually be deployed.

The "Global Zero" solution

Although the number of nuclear weapons has dropped considerably - especially since the end of the East-West antagonism, critics point out that even after more than 20 years since the dissolution of the Soviet Union, there are still thousands of nuclear warheads in US and Russian stockpiles, in particular. This arms volume cannot, they say, be justified with reference to the potential emergence of new nuclear powers or the threat of nuclear terrorism. The Global Zero argument is nuclear arms are not only militarily superfluous and unusable in practice but are also politically damaging to non-proliferation efforts because they undermine the credibility of the nuclear powers. What is needed, in this view, are consistent and determined steps towards a zero solution, as formulated in the 2010 report of the International Commission on Nuclear Non-proliferation and Disarmament entitled "Eliminating Nuclear Threats. A Practical Agenda for Global Policymakers". However, further nuclear disarmament by the United States and Russia is likely to fail in the face of US missile defence system plans. Without renewed cuts in these arsenals there is little chance that the other nuclear powers will be prepared to engage in talks on global elimination.¹

Sources and further information

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¹. <http://warpp.info/en/m7/articles/m7-17>