

Advocates of disarmament have long maintained that non-conventional weapons are so destabilising to international peace and security that they should be eliminated altogether.

A new farewell to arms

Viewing disarmament in a new security environment

This policy brief provides an overview of the disarmament question and examines how it is entering a new phase in a radical new context of globalisation and rapid technology diffusion.

In 1909 Foreign Secretary Sir Edward Grey, Viscount Grey of Fallodon, prophesied the outbreak of World War I when he declared that the naval arms race between Britain and Germany had become the most important single factor increasing tensions and the risk of war in Europe.¹ The judgement captures the kernel of disarmament: certain types of weaponry are inherently so destabilising to international peace and security that they should preferably be removed from the military arsenals. Disarmament became a major objective of the League of Nations in the 1920s and

1. Philip Noel-Baker, 'Peace and the Arms Race', Nobel Peace Prize Acceptance Speech, 11 December 1959.

1930s. Under the Charter of the United Nations it is a responsibility of the General Assembly (Article 11) and the Security Council (Article 26). Today, as in the past, disarmament is one of the policy options available to governments to enhance national security. Barring a decision to unilaterally renounce a particular weapon category or coercive destruction of military equipment following defeat in war, it forms an integral part of cooperative security that aims for stability, predictability and transparency in international relations based on equal rights and obligations for all parties concerned.

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The disarmament concept fell into disuse with regard to non-conventional weaponry as the Cold War was coming to an end. Stagnation at the United Nation's Conference on Disarmament (CD), the primary platform for multilateral negotiations, probably best exemplifies the trend. It remained without an agenda of work between 1996 and 2009. Its many achievements include the 1972 Biological and Toxin Weapons Convention (BTWC), the 1993 Chemical Weapons Convention (CWC) and the 1996 Comprehensive Test Ban Treaty (CTBT). After concluding the CTBT negotiations, the international community had some ideas for further initiatives, but no common vision on future security relations that disarmament should support. The consensus requirement of CD procedures means that a single member of the negotiating body can block any move to take a proposition forward.

Another reason why the disarmament goal has lost its attractiveness was a shift away from considering the weapon as a key destabilising factor in inter-state relations towards viewing the possessor of such weapons as the source of global or regional instability. Consequently, certain regimes judged to be expansionist, revisionist, disruptive to smooth international relations, morally reprehensible or irrational could not be entrusted with the governance of some of the most destructive weapons. Non-proliferation strategies moved centre stage to limit or deny those countries access to non-conventional weapons and their delivery systems, as well as dual-use technologies that can contribute to indigenous weapon programmes. The reverse also holds true: nuclear ambitions by friendly – and therefore rational and trustworthy – nations are not challenged to the extent that they could be.

The extension of non-proliferation policies from the nuclear domain, as framed in the 1968 Non-Proliferation Treaty (NPT), to other weapon categories, such as chemical and biological weapons (CBW) and missiles, became extremely divisive. On the one hand, they appeared to legitimise the continuing possession of certain – particularly nuclear – weapons by those who had already acquired them. On the other hand, developing countries perceived those policies as running counter to the promise in international treaties (e.g., NPT, BTWC, CWC) that they would have access to relevant technologies for peaceful purposes. In addition, the judgements about other regimes were not only highly subjective, they also reflected intensifying moralising undercurrents, which ultimately enabled political justification of the invasion of a country based on (as it turned out, flimsy) assumptions of illicit possession of non-conventional weapons.

Meanwhile, the term 'disarmament' acquired greater currency in the context of human security, particularly in the sense of post-conflict elimination of surplus weaponry or the banning of the acquisition, possession and use of weaponry that continue to cause indiscriminate casualties long after cessation of hostilities. Progress in the latter area happened because countries took the negotiations outside of the CD. Both the 1997 anti-personnel mine ban and the 2008 cluster munitions convention came to fruition in this manner.

Terminology

The semantic contours of terms relating to the control of weaponry have shifted considerably over the decades, sometimes drifting far away from the original understandings and occasionally becoming virtual synonyms of each other. The arguments in this *Policy Brief* are based on the following understandings:

Disarmament entails the complete elimination of a discrete weapon category and the prevention of future armament or rearmament. An immediate consequence is the removal of such weaponry from military doctrine, which means that the knowledge and expertise on how to use such weapons is gradually lost. It thus removes motives for armament and therefore drastically reduces, if not entirely eliminates, demand pressures for such weaponry.

Arms control is the management of levels of weaponry within treaty-specified quantitative and qualitative limits. In contrast to 'disarmament', a residual weapon capability continues to exist with the military forces and the weapon category remains part of the military doctrine. If the agreed quantitative and qualitative ceilings are higher than current weapon holdings, an arms control treaty may be a mutual agreement for further armament. *Arms reduction* therefore refers to the establishment of quantitative and qualitative ceilings that are lower than current holdings.

Non-proliferation policies are devised to deny or conditionally grant specific (but not necessarily specified) security actors access to dual-use technologies. Non-proliferation as a stand-alone policy option, however, does not address an actor's initial decision to acquire a particular type of weaponry, but only complicates the technology acquisition process. In this context, other security tools, such as sanctions or supplementary international treaties, are indispensable.

In the shadow of the Cold War

Over the past 2-3 years arms control and in its wake, disarmament, have enjoyed resurgent interest. Former senior US officials, who used to be arms reduction hawks, have called for nuclear disarmament.² Both the Democratic and Republican presidential candidates embraced the idea in the 2008 election campaign. In April 2009 President Barack Obama outlined a vision for a nuclear weapon-free world in his Prague speech. Admitting a distant future for the fulfilment of his dream, he proceeded to list a number of practical steps towards that goal. The UN Security Council, meeting on the level of Heads of State and Government on 24 September under Obama's chairmanship, adopted Resolution 1887 to set out a path towards nuclear disarmament and strengthen international non-proliferation efforts.³ One year after the Prague ad-

2. George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn, 'A World Free of Nuclear Weapons', *Wall Street Journal*, 4 January 2007. One year later, they elaborated their thoughts in a second opinion piece, but early in 2010 they revisited some implications of their earlier vision by reemphasising nuclear deterrence. See George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn, 'How to Protect Our Nuclear Deterrent', *Wall Street Journal*, 19 January 2010.

3. UN Security Council Resolutions 1887 (2009), adopted on 24 September 2009.

dress, the United States and Russia signed the New Strategic Arms Reduction Treaty (START), the first meaningful and verifiable nuclear arms reduction agreement since the 1990s. The regained optimism contributed to the success of the Nuclear Security Summit and the NPT Review Conference in April and May 2010 respectively.

However, much of the concrete agenda as outlined by Obama concerns unfinished business from the Cold War. Following the first Chinese nuclear test in October 1964, the Deputy Defense Secretary Roswell Gilpatric proposed in a report to the president that the USA negotiate an international non-proliferation agreement and, in order to affect the motivation of the states seeking nuclear weapons, to supplement such an agreement by other instruments, including a comprehensive test ban and nuclear-free zones, safeguards for programmes for peaceful purposes and fissile material controls.⁴ The CTBT still awaits entry into force; proposals for a fissile material control treaty (FMCT) languish in the CD; and the safeguards system operated by the IAEA has come under severe duress by countries that refuse any national contribution to transparency other than allowing international inspectors highly managed access to installations and records.

The debates on the merit of the New START treaty have

sources for such dual-use technologies, which increases the difficulties in ensuring that technology transfers serve legitimate purposes only. Presently, those challenges are most visible in the biological and chemical areas, but are becoming discernible in the nuclear field too.

Biology and biotechnology have become critical ingredients to development. Many developing countries conduct leading-edge research and development activities. They are increasingly commercialising their products based on economic principles that differ from those used by Western commercial entities, which creates trade relations over which non-proliferation arrangements such as those established by the Australia Group have little control. In addition, developing countries are setting up centres of excellence and biotechnology clusters, which attract students in large numbers, including those whose nationality could trigger proliferation concerns in industrialised countries. Education in biology and biotechnology too is expanding rapidly, bringing advanced knowledge and expertise within the remit of many and thus increasing the risk of terrorist or criminal incidents with biological materials.



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energised a rising tide of opinion against arms control in the United States. Specifically the verification dimension suffers wholesale rejection based on Cold War imperatives invoked as if Russia and the United States have not ameliorated their security interactions. In Russia too, certain segments of the security establishment view New START (particularly in combination with certain ballistic missile defence configurations) as an impediment to the restoration of the country's global power status and projected weapon modernisation programmes. The treaty's security partnership re-establishes equality in the bilateral relations. In Washington some therefore view it as eroding US post-Cold War dominance. In both countries isolationists and nationalists feed resistance to the agreement with the simple aim of unseating internationalist presidents. Against the backdrop of this ideological fault line, New START is both being oversold and unfairly disparaged. For the world at large, in contrast, its relevance to global security is much diminished compared to the early 1990s. The most urgent nuclear challenges evolve on the Korean Peninsula, the Middle East, South Asia and elsewhere, while nuclear energy politics are redefining the non-proliferation and arms control parameters.

Disarmament in the post-proliferation period

Globalisation accelerates the natural diffusion of technologies, including those with potential civil and military applications. More societies have become original

4. 'A Report to the President by the Committee on Nuclear Proliferation', 21 January 1965, available at: http://www.gwu.edu/~nsarchiv/NSAEBB/NSAEBB1/nhch7_1.htm.

Select weapon control agreements

Status as of 1 December 2010

Global (multilateral)

Non-Proliferation Treaty (NPT, 1968), Biological and Toxin Weapons Convention (BTWC, 1972), Convention on Certain Conventional Weapons (CCW, 1980), Convention on the Physical Protection of Nuclear Material (1980), Chemical Weapons Convention (CWC, 1993), Mine Ban Convention (1997), Convention on Cluster Munitions (CCM, 2008)

Nuclear Weapon-Free Zones

Tlatelolco (1967), Rarotonga (1985), Bangkok (1995), Pelindaba (1996), Semipalatinsk (2006)

Bilateral (US-USSR/Russia)

Intermediate Range Nuclear Forces Treaty (INF Treaty, 1987), Strategic Arms Reduction Treaty I (START I, 1991), Strategic Arms Reduction Treaty II (START II, 1993), Strategic Offensive Reductions Treaty (SORT, 2002)

As biotechnology involves to a large extent information, digitised technology transfers can cross borders with very few checks. Furthermore, a single company may have units in several countries, so that information, while remaining within the company, may cross many borders. Corporate acquisitions and sales of research or production units are major aspects of technology transfers. Equipment and processes have become

so ubiquitous that they define the post-proliferation environment. Future weapon control efforts will have to focus primarily on preventing their indigenous application to armament rather than on international transfers. The extent to which the BTWC can capture these changes will determine the convention's relevancy in the mid to long-term.

The chemical sector has undergone similar transformations, not least because of its progressive convergence with biotechnology in multiple areas. Many chemical developments and production processes that could be of concern for future chemical weapon development are presently located in developing countries. For the CWC the challenge will be to refocus the verification regime from weapon destruction and plants producing listed chemicals in treaty-specified volumes, to a much broader and geographically dispersed chemical industry, while taking into account that present-day production processes can easily operate below the reporting and monitoring thresholds defined in the treaty.

Nuclear technology may also be entering a post-proliferation phase. As a consequence of global warming, many societies are looking into domestic nuclear energy programmes as a short-term alternative to fossil fuels. The trend will establish new nuclear research programmes in many parts of the world, including areas of regional geopolitical conflict or countries that are known for the lack of transparency in government affairs. The current safeguards verification machinery of the IAEA may be inadequate to monitor the increase in activities. Furthermore, the legitimacy of the NPT may be questioned by an increasing number of states if their nuclear activities are challenged by other governments. Commercial pressure to access the new markets is likely to increase and will help to define national interests of supplier states. The recent agreement to supply India, which is a nuclear-armed state not party to the NPT, and the UAE with nuclear technology places great strain on the NPT and the Nuclear Suppliers Group.

Verification challenges

In the past verification has been based on two basic approaches: (1) testimony of the presence or absence of a particular object at a given location at a certain time, whereby time lines give a degree of certainty about treaty compliance; and (2) material balances that keep track of input and output of production and consumption processes. As a consequence of new research, development and production techniques, the size of equipment and quantities of materials involved may fall below verification thresholds in existing international treaties. The digitisation of research and development in the life sciences adds a new layer of complexity. Verification of disarmament and arms control treaties can therefore no longer rely on substitutes to ascertain compliance.

In the past, for example, nuclear arms control relied on counting missiles, planes and submarines, and, as new observation technologies and on-site inspection became possible, warheads. A future FMCT is likely to encounter verification challenges not unlike those facing the BTWC once the fissile materials rather than delivery systems become the core object of the control regime.

Future vision

Disarmament is entering a new phase. World leaders, politicians and senior policy officials have stated its future relevancy. However, its purpose, supporting tools, as well as relevancy to international security differ markedly from the past, and the parameters are still shifting. Forward thinking on disarmament is presently hostage to the debates on the role of nuclear weapons. Proponents view nuclear weapons as guarantors of international peace rather than as causes of instability and insecurity, compounding the argument for disarmament and arms reductions. Opponents face the daunting task of convincingly redefining security so that the removal of nuclear weapons from military doctrine does not spell a return to major armed conflict as seen in the first half of the twentieth century.

For all its shortcomings, the BTWC – soon to be followed by the CWC once munitions have been destroyed – is a laboratory full of experiments. Its future disarmament regime must blend security imperatives with the world's fast-growing economic, health and development needs, and the reality of rapid technology diffusion. A web of multilateral treaties, international organisations, Security Council resolutions and a host of measures adopted nationally and by professional and scientific bodies are creating overlapping and complementary levels of transparency and compliance monitoring.

Verification of weapon treaties has thus far essentially been an inter-governmental operation. New actors from industry, scientific communities and civil societies and their international networks are playing growing roles in promoting universality, treaty implementation and transparency. The BTWC still requires a more formal verification regime to enhance confidence in compliance, but the future machinery needs to build on the emerging web of roles, responsibilities and tools, rather than substituting them with a single integrated governance framework.

As a formal disarmament model, the ideas underpinning the above vision for the BTWC are still in their infancy, but further research and testing with the active involvement of the different stakeholders may actually point to the future in other areas of multilateral, cooperative weapon control too. This could include a blueprint for a Nuclear Weapons Convention.



PRAGUE: US President Barack Obama and Russian President Dmitry Medvedev sign the new START Treaty

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