Introduction

Weapons technology in the nuclear age is some of the fastest and most destructive available. This speed and power make it particularly important to control. As such, countries around the world have sought to limit the development, acquisition and use of nuclear weapons technology. The United Nations has played a vital role in this process. Above all, it is the one place where nuclear have-nots (the “Non-Nuclear Weapons States”, NNWS) routinely apply pressure on the Nuclear Weapons States (NWS) for rapid progress toward nuclear disarmament. This includes long-standing demands for negative security assurances, a legally binding commitment not to use nuclear weapons or nuclear threats against non-nuclear weapons states.

History

With the first use of nuclear weapons in the summer of 1945, the relationship between offensive military technology and defensive technology fundamentally changed. Today eight countries have tested nuclear weapons, most recently North Korea in 2006.

In the age of this new weapon, countries needed new strategies to feel secure. Those countries that had nuclear weapons developed a strategy called “Nuclear Deterrence.” The concept of Nuclear Deterrence was that a defender attempted to promise high costs paid by the attacker if they did attack. The costs were so high, that country leaders began using the term “Mutually Assured Destruction” (MAD) to describe what would happen if nuclear war began (i.e. both attacker and defender would be totally destroyed).

Nuclear Deterrence was most popular throughout the Cold War, and represented the strategies of the United States and Soviet Union most closely. At one point, the United States discussed developing the “Strategic Defense Initiative” (SDI) or “Star Wars” as it was known popularly. President Reagan wanted to put satellites in space that would shoot down nuclear missiles and their warheads. Though the technology was far from ready, just talking about it upset the concept of Nuclear Deterrence. In other words, if the US could use their nuclear weapons successfully and the USSR’s counter attack would be unsuccessful because of Star Wars, then the US had an advantage and Mutually Assured Destruction no longer applied. As a result of these concerns, the Strategic Defense Initiative project was delayed for many years, remains limited in capability and remains a subject of concern to anyone who believes in the value of Nuclear Deterrence.

International nuclear diplomacy does not pit nuclear against non-nuclear. Instead A few nuclear leaders (above all the United States) strive to preserve their nuclear options, while the Non-Aligned movement (including nuclear India and Pakistan) strive to press the United States and other nuclear powers to make faster progress toward nuclear disarmament.

For NNWS, the most important issue has been nuclear disarmament. Under Article VI of the 1968 Nuclear Non-Proliferation Treaty (NPT), the nuclear powers agree to achieve nuclear disarmament. A major debate concerns whether this article commits them to achieve complete nuclear disarmament (still a very distant goal) or regular progress toward disarmament (which
The Non-Aligned bloc in the UN insists that only complete nuclear disarmament will do. A second issue is No First Use (NFU) of nuclear weapons. A binding commitment not to be first to use nuclear weapons would make substantial progress toward the negative security assurances that non-nuclear weapons countries want. China has made informal commitments never to use nuclear weapons first, although these have been questioned. Russia also has experimented with NFU pledge; its current status is unclear. The United States, followed by France and the United Kingdom, relied on explicit threats of first use throughout the Cold War and has generally resisted pressure to give up the first-use option. Other nuclear powers (India, Israel and Pakistan) have been circumspect on the issue.

Current Situation

Today, the pursuit of nuclear weapons is seen generally as an aggressive act and therefore a bad thing. However, the pursuit of nuclear weapons is not always obvious and not always being carried out by countries. Nuclear energy technology, Dual-Use technology and the rise of terrorism all make the management of nuclear weapons difficult.

The sister technology to nuclear weapons is nuclear energy. During the same period that countries began pursuing nuclear weapons technology, they also pursued nuclear energy technology. Nuclear energy is considered a very powerful source of electric energy and is very cost effective once reactors are operational. There are concerns by many that nuclear energy has negative effects on the environment, especially regarding management of nuclear waste.

Remarkably, nuclear energy waste can be recycled – into nuclear weapons material. The technology for the management of nuclear reactor fuel and its waste is considered useful for both the power generation industry and the weapons manufacture industry. As such, this technology has a “Dual-Use.” This particular form of recycling is not attractive to many people who think there are too many nuclear weapons in general. It is similarly unappealing to countries that have nuclear weapons and do not wish to see other countries develop them. Increasingly, fears of some other group besides a country’s government (e.g. a terrorist group) gaining access to dual-use technology or nuclear waste material are part of the nuclear energy debate.

Role of the United Nations

The United Nations has an expressed interest in preventing the unsanctioned use of force around the globe. As nuclear technology influenced the ways countries interact, so too did the UN need to influence its policies.

Watching – First, the UN helped charter the International Atomic Energy Agency (IAEA) that helps monitor the use of nuclear materials. Countries comply voluntarily with inspections of nuclear facilities and safeguarding (usually with cameras) to insure that civilian nuclear facilities are not sued for military purposes.
Supporting – Non-nuclear weapons states are especially concerned that the IAEA live up to its responsibilities to provide nuclear technology and assistance to developing countries. They are determined that its non-proliferation inspection role does not overwhelm its role as a source of nuclear assistance.

Agreeing – UN encouraged member countries to establish a series of international treaties. The most notable agreements include the 1968 Nuclear Non-Proliferation Treaty (NPT) and the 1996 Comprehensive Test Ban Treaty (CTBT). It has had less success with proposed agreements for No First Use, and ending production of fissile material.

<table>
<thead>
<tr>
<th>Key provisions of the NPT include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article I – Nuclear Weapons States agree not to share nuclear weapons technology or with non-nuclear countries</td>
</tr>
<tr>
<td>Article II – Non-nuclear countries agree not to receive nuclear weapons technology or from nuclear countries</td>
</tr>
<tr>
<td>Article III – Countries will abide by the rules established by the (IAEA)</td>
</tr>
<tr>
<td>Article IV – Countries have an <em>inalienable</em> right to civilian nuclear technology</td>
</tr>
<tr>
<td>Article VI – All countries will pursue a general policy of “good-faith” disarmament</td>
</tr>
</tbody>
</table>

The NPT was extended in 1995 to last “indefinitely”. While Nuclear Weapons States view it as a bulwark against proliferation, Non-Nuclear Weapons States are often very suspicious, believing that the nuclear powers have used it to their advantage, without living up to their obligations. NPT review conferences are acrimonious, reflecting this basic division.

The CTBT was completed in 1995. As of 2008, the treaty has 178 country signatures and 144 have ratified. Signatories include several nuclear powers: France, Russia and the United Kingdom. The most notable non-signatories are China, India, Israel, Pakistan, North Korea and the United States.

The CTBT is a difficult treaty to accept for many states that have nuclear weapons programs, because it means that their ability to advance nuclear weapons technology is limited to computer simulations. For this reason, that there are any signatures and ratifications is positive, but there remain many significant nuclear powers yet to sign.

**Country Positions**

Though not absolute, countries generally view non-proliferation, monitoring and disarmament from a “Have” or “Have-not” position. Countries that have nuclear weapons generally tend to want to keep them, though they may pursue a strategy of universal limitations on their development and use. Countries that do not have nuclear weapons generally tend to
want to keep those that do have them from developing more or using the ones they have. The Non-Nuclear Weapons States will be expected to continue to demand progress on nuclear disarmament, full implementation of a CTBT, and a NFU agreement.
Recommended Reading

The Nuclear Threat Initiative
http://www.nti.org/

Nuclear Age Peace Foundation article “Nuclear Deterrence, Missile Defenses and Global Instability” by David Krieger, April 2001 http://www.wagingpeace.org/articles/2001/04/00_krieger_nuclear-deterrence.htm

Locations and Analysis of Nuclear Energy Programs
http://www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/reactsum2.html

International Energy Agency (IEA) Energy Technology Essentials


UN Website on the Nuclear Non-Proliferation Treaty

UN Website on the Comprehensive Test Ban Treaty


UN Security Council Resolution #1835 (Iran-2008)

UN Security Council Resolution #1718 (North Korea-2006)

The Comprehensive Test Ban Treaty

A New Look at No First Use of Nuclear Weapons
http://www.maximsnews.com/news20080822stanleyfdtnuclearfirststrikedoectrine10808221601.htm