ODUMUNC 2009 Issue Brief
Security Council

Safeguarding Against Terrorists' Use of Radioactive Materials

Cody Zimmerman

Introduction

The nexus of terrorism and nuclear power is one of the paramount threats to international security in the world today. Terrorists have repeatedly shown a blatant disregard for the laws of war in purposefully targeting civilians in their attacks. Furthermore, many modern terrorist groups do not have a physical base of operations that countries can target in the war on terror. Not only does this make prevention and counter-terrorism difficult, but also it also undermines the theory of deterrence that prevented a nuclear war during the dark years of the Cold War. Without a specific country or location against which to retaliate, mutually assured destruction falls apart.

The threat of nuclear terrorism has reached new heights in the 21st century. The economic calamity in Russia in the 1990s, the proliferation of nuclear materials and technology, as evidenced by the A.Q. Khan network based out of Pakistan, and the growing threat and sophistication of radical Islamist terrorism, have created a perfect storm whereby the possibility of a nuclear or radiological attack by non-state actors has increased dramatically. Terrorist groups, most prominently, al Qaeda, have raised the possibility, although they appear to lack the technical resources. Preventing them for getting those resources—especially whole nuclear weapons or the fissile material required to build nuclear weapons—is the main goal of international policy ion this issue.

The United States led pressure for action on this action throughout the Bush Administration, making it America's very highest foreign policy priority. Other countries regard the issue as important, but resent the way it has distracted from other international policy priorities. And many countries view the issue as a thin veil for efforts to intervene in their own security policy.

Paths to nuclear terrorism

There are several means by which terrorists could perpetrate a nuclear or radiological attack. These include:

- An attack on a nuclear reactor to cause a nuclear core meltdown;
- Theft or purchase of a nuclear weapon;
- Construction of a nuclear weapon using black market or stolen uranium or plutonium;
- Construction of a so-called "dirty bomb," whereby conventional explosives are packaged with uranium or plutonium to spread a radioactive cloud over the target area.

Of these paths, the dirty bomb is the simplest and most likely form that a nuclear terrorist attack would take. The increase in civilian nuclear power worldwide means there is a large supply of depleted uranium and plutonium that could be obtained by terrorists and

used in the construction of a "dirty bomb." Lax security measures at storage sites for fissile materials, notably in the countries of the former Soviet Union, are another source of uranium or plutonium that could not only be used for a dirty bomb, but also a small nuclear device. The global stockpile of highly-enriched uranium (HEU) and plutonium is 2300 tons, enough fissile material to construct approximately 200,000 nuclear weapons. This material is stored in hundreds of facilities in over 40 countries.

Russia

Any discussion of safeguarding nuclear materials from terrorist hands must include Russia. No Russian weapons or material have ever been officially declared missing; but smugglers have often been caught trying to sell small quantities of fissile material, including bomb-grade (90% pure) uranium and plutonium. Improving security at all civilian and military nuclear sites is the main goal of the Cooperative Threat Reduction (CTR) program, often known by the names of its congressional sponsors as the Nunn-Lugar Act, initiated by the United States in 1992. Under CTR the United States spend between USD 500 million and 1 billion annually improving nuclear security throughout the countries of the former Soviet Union. So far, CTR has not been affected by the deterioration in Russian-America relations.

Pakistan

Pakistan is another possible source of nuclear terrorism. In the 1980s, the Pakistani nuclear program, then under the leadership of A.Q. Khan, began trading in nuclear technology, fissile materials and ballistic missiles with countries including Iran, Libya and North Korea. After this trade was confirmed in 2003, A.Q. Khan was placed under house arrest, where he remains to this day. Pakistan insists its nuclear security is the very best. There is no evidence that Pakistan ever supplied its nuclear wherewithal to any non-state actors (NSAs) including terrorist organization. Great international concern remains, because of the fragility of the Pakistani state and the radicalization of elements of its population.

UN Action

As of 2007, the UN had implemented 13 universal agreements on the responsibilities of member states to prevent terrorism, including the *International Convention for the Suppression of Acts of Nuclear Terrorism*, adopted by the UNGA in 2005. The Convention calls upon states party to criminalize terrorist attacks against a broad range of targets, including nuclear plants and reactors. It also encourages member states to cooperate in the sharing of information to aid in prosecution and extradition proceedings, and in protecting vulnerable nuclear facilities. However, there are several factors that could undermine the Convention's effectiveness. First and foremost, the only permanent member of the Security Council – all of who are the only legal nuclear powers

under the 1968 Nuclear Non-Proliferation Treaty (NPT) – which has ratified the treaty is Russia. The only country with nuclear weapons outside the NPT to have ratified it is India.

Another obstacle to the Convention is the fact that there is still no official definition of terrorism in the international community. Terrorism has been on the agenda of countries the world over since the time of the League of Nations, and opposition to it in all its forms has been expressed repeatedly in resolutions of the Security Council and General Assembly alike. While all states condemn terrorism in principle, many oppose condemnation of all form of terrorism. Instead they seek protection for certain forms of non- violence, such as revolutionary movements or favored ethnic groups. However, a comprehensive, universally agreed-upon definition probably is necessary to effective international countermeasures.

Another landmark UN action to curb terrorist access to radioactive materials is *Security Council Resolution 1540*, passed in April 2004. UNSCR 1540 "establishes an obligation on all states to implement and enforce national legislation that prevents WMD [weapons of mass destruction], related materials, and their means of delivery from falling into the hands of non-state actors."[1] This is groundbreaking in several aspects. First and foremost, 1540 explicitly addresses proliferation among non-state actors, including terrorist groups, whereas the NPT, for example, deals solely with nation-states. Moreover, 1540 is applicable to all member-states by default, whereas states could opt-out of previous proliferation treaties and thus be held less accountable for proliferation infractions within and between their borders. Furthermore, 1540 integrated the various and disparate nonproliferation mechanisms, like the NPT, the Nuclear Suppliers Group (NSG), and the Missile Technology Control Regime (MTCR), into a single framework. Finally, since 1540 was enacted under Chapter VII of the UN Charter, it is legally binding, and possibly enforceable through the various corrective measures the Security Council has at its disposal.

UNSCR 1540 has its weaknesses, however. Some states will have difficulty mustering the political, technical, and legal expertise necessary to draft and implement the required nonproliferation mechanisms, especially poorer states and those lacking crucial skills, and often with very different priorities for their limited resources. Such states are important, through, as potential cites for illicit cross-border trafficking and as terrorism havens. They need significant cooperation from member-states, which may not be desired or possible for some, which in turn leads to the undermining of the universal nature of 1540 if countries cannot meet their obligations.

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[1] Peter Crail. "Implementing UN Security Council Resolution 1540: A Risk-Based Approach." *Nonproliferation Review* 13, no. 2. July 2006: pg. 356. http://www.vertic.org/assets/nim_docs/background%20articles/Crail_risk-based%20assessment_1540.pdf

Conclusion

The issue of nuclear terrorism is extremely important to one UN member state. It is accepted by many others, and tolerated by some who believe it distracts from more vital issues. The crucial question, then, is how effectively can the United States and its closest allies influence the agenda and decision-making to UN General Assembly? Can it build support for broad principles, by offering specific assistance and cooperation in other areas, through promises and sometimes threats, to create consensus? Or should the GA give up on general measures and focus instead on specific nuclear terrorist threats where there is more agreement?

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