



The Ethics of the Nuclear Security Summit Process

Conference Paper

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The conference took place at the Pocantico Center of the Rockefeller Brothers Fund from June 1-3, 2011. Organized by the Carnegie Council in cooperation with the U.S. Army War College, the conference served to review and report on two years of program activity, and to generate new ideas and resources among an international group of innovative thinkers on U.S.-Russian relations, nuclear arms control and nonproliferation, European and NATO security challenges for the future, including Afghanistan, and competition and cooperation in the Arctic region.

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On July 16, 1945, the world irrevocably changed. Early that morning, scientists in the Jornada del Muerto desert in New Mexico succeeded in exploding the first ever nuclear bomb, ushering in the "Atomic Age." Now fast forward to 2011. Nine countries possess more than 20,000 nuclear weapons in total; there is enough excess global nuclear (fissile) material to build an additional 100,000 weapons, and transnational terrorist networks like al-Qaeda continue to seek this destructive technology for their own purposes. The worldwide growth in "clean" nuclear energy exacerbates these challenges, since the same materials and technologies that can be used for energy can be used for weapons. Indeed, it is difficult not to discuss ethics when discussing the power harnessed by splitting the atom; a power used for both good and nefarious purposes. Because there have been many papers written on nuclear power—whether in weapon or energy form—this paper examines the ethical questions around two intertwined 21st century issues: nuclear terrorism and the Nuclear Security Summit (NSS) process. First, I will describe the threat posed by vulnerable fissile materials. Then, I will detail the NSS process and its ethical implications. I conclude by arguing that the NSS process is an ethical one, though challenges to its ethical framework may arise in the lead-up to the next summit.

Nuclear Terrorism Threat

This September, the world will observe the tenth anniversary of the 9/11 terrorist attacks. It was not only a day when thousands lost their lives, but also a moment when our perception of global threats shifted from nation-states to transnational challenges, principally terrorism. After September 11, 2001, our post-Cold War era began to be defined through the lens of terrorism. In particular, the public perception of nuclear danger shifted from the Cold War worry of a nuclear exchange between the Soviet Union and America to the possession of nuclear materials by a terrorist group. For instance, the bipartisan Commission on the Prevention of WMD Proliferation and Terrorism warned that al-Qaeda is actively seeking nuclear materials to use against the United States and has been since the 1990s. In a November 16, 2010, Foreign Policy article, Rolf Mowatt-Larsen, a former high-ranking CIA official, cites al-Qaeda's potential future leader Ayman al-Zawahiri's justification for the use of weapons of mass destruction, "as an act of equal retaliation, 'repaying like for like.'"¹

A nuclear explosion anywhere in the world would have catastrophic consequences everywhere in the world. To take one example, researchers at the RAND Corporation estimated that a nuclear explosion at the Port of Los Angeles would cause 60,000 casualties immediately and hundreds of thousands of subsequent deaths due to radiation exposure. Mass panic and chaos would ensue as millions try to evacuate the Los Angeles area. The

economic consequences of such an event would instantaneously be international in scope, given that the ports of Long Beach and Los Angeles alone handle 30 percent of U.S. shipping imports, and all U.S. ports carry out 7.5 percent of world trade activity.² Overall, early costs of this catastrophic scenario could exceed \$1 trillion. Former United States Senator Sam Nunn discussed additional consequences:

No part of the planet would escape the impact. People everywhere would fear another blast. Travel, international trade, capital flows, commerce would initially stop, and many freedoms we have come to take for granted would quickly be eroded in the name of security. The confidence of America and the world would be shaken to the core.³

In sum, the global consequences of a nuclear terrorist incident include economic disruptions, social disturbances, and the erosion of civil liberties. In order for such a terrible event to come true, a terrorist organization would need the fissile materials (highly enriched uranium, plutonium), the design, and the technical expertise to build even a crude, so-called "gun-type," bomb. Nuclear security experts agree that the most difficult piece of this equation is acquiring the actual fissile materials; simply put: no fissile materials, no bomb. Unfortunately, there are more than one hundred thousand bombs' worth of fissile materials spread throughout the world, and there have already been over 18 documented cases of theft or loss of highly enriched uranium (HEU) and plutonium. We are far from where we need to be.

Securing Vulnerable Fissile Materials

Efforts to secure vulnerable fissile materials began even before catastrophic, global terrorism—the kind envisioned by al-Qaeda—came into the mix. However, the urgency of the threat of nuclear terrorism and the need to work collaboratively and globally to address it is a recent phenomenon. The U.S. Cooperative Threat Reduction (CTR) program began in 1991 as bipartisan legislation introduced by Senators Richard Lugar (R-IN) and Sam Nunn (D-GA). It was designed to assist the states of the former Soviet Union in protecting and disposing of their nuclear weapons, nuclear materials, and delivery systems (e.g., rockets, bombers). In the 1990s, the U.S. Congress allocated approximately \$400 million annually to CTR-related programs, which are administered by the Departments of Defense, Energy, Commerce, and State. From 2000-2010, the United States will spend a projected \$1 billion per year on the CTR program.

Today, there are myriad initiatives, agreements, resolutions, safeguards, conventions, and the like, that govern the international nuclear security regime.⁴ What is unique about President Barack Obama's contribution is that he significantly accelerated these efforts and increased their ambition. The April 2010 Nuclear Security Summit (NSS) was a first step in overcoming the latent inertia that has inhibited the nuclear security regime and an opportunity to publicly—and at the highest level of state—commit to overcoming this grave challenge. As the White House stated, the Summit would "develop steps that can be taken together to secure vulnerable materials, combat nuclear smuggling and deter, detect, and disrupt attempts at nuclear terrorism."⁵ The 2010 NSS was successful in not only drawing attention to the nuclear security threat, but also laying out concrete ways in which to guard against it. This unique event became an international process for locking down vulnerable fissile materials around the world.⁶

The NSS: An Ethical Process?

Given the Carnegie Council's mission to highlight ethics in international affairs, the remainder of this paper will explore whether the NSS process is an ethical one. Does it take into account the principles of pluralism, fairness, and rights and responsibilities?

Pluralism. The NSS process is a pluralistic one in that it involves myriad political actors in an inclusive, dynamic, and global process to secure vulnerable fissile materials as quickly as possible. Last year's summit included 47 heads of state, plus leaders from the United Nations, International Atomic Energy Agency (IAEA), and the European Union. These participants reflected the importance of diverse viewpoints and the truly global nature of the nuclear terrorist threat—leaders from Non-Nuclear Weapons States, as well as Nuclear Weapons States; countries with stockpiles of fissile materials and those without; and developed countries and those who are members of the "Non-Aligned Movement."⁷ At a press conference after the April 13, 2010, summit, President Obama recognized the spirit of pluralism when he stated:

This was not a day of long speeches or lectures on what other nations must do. We listened to each other, with mutual respect. We recognized that while different countries face different challenges, we have a mutual interest in securing these dangerous materials. So today is a testament to what is possible when nations come together in a spirit of partnership to embrace our shared responsibility and confront a shared challenge. This is how we will solve problems and advance the security of our people in the twenty-first century. And this is reflected in the communiqué that we have unanimously agreed to today.⁸

Finally, because securing all vulnerable fissile materials globally cannot easily be accomplished, the 47 world leaders recognized that "success will require responsible national actions and sustained and effective international cooperation."⁹ An important outcome embodying pluralism was the selection of a new host in 2012: South Korea. To underscore the point further, the nations involved in the NSS process seem open to inviting even North Korea—under certain conditions—showing a commitment to this pluralism into the future.

Fairness. From the beginning, those planning the 2010 Summit operated on a model of fairness towards both their official counterparts and civil society experts working on nuclear security issues. First, the agenda, communiqué, and work plan were developed in collaboration and through consensus with those countries invited. Each country designated an NSS team, including a "Sherpa," "Sous-Sherpa," and "Yak," to lead their country's involvement in the 2012 NSS. These teams met for over half a year in the lead-up to the April 12 - 13, 2010, Summit, working to develop agreed-upon agenda items, processes, et cetera. Additionally, throughout the process, the U.S. and other governments engaged with the Fissile Materials Working Group (FMWG), a nongovernmental coalition of over 40 U.S. and international experts representing many of the top nonproliferation and nuclear security organizations in the world.¹⁰ The FMWG was able to successfully liaise with a worldwide public, including through international media engagement, and hosted their own parallel conference in Washington, D.C., "Next Generation Nuclear Security: Meeting the Global Challenge," on April 12, 2010.¹¹ The group organized this conference in order to provide analysis, education, and policy recommendations that highlighted the urgency of the nuclear security agenda, and to showcase an international expert voice on the official proceedings of the 2010 NSS. Since then, the FMWG has expanded its international expert network through regional meetings; published myriad op-eds, articles, and papers exploring nuclear terrorism and the urgency of an accelerated, global nuclear security regime; and been a "go to" source of information for the media and officials around the world. At the FMWG's anniversary conference, held in Vienna, Austria, on April 13, 2011, panelist Joyce Connery, a senior advisor to the Deputy Secretary on National Security at the U.S. Department of Energy and the 2010 NSS "Yak," acknowledged the important role that NGOs play:

...[NGOs] have the ability to gather people and say some things that we can't say as the government; [they] produce scholarly materials which we use as reference material; talk to Congress and help increase our funds; and [they] make sure that there's a security awareness in the media, in Congress, and the public at large that we as the government wouldn't have the capacity to do.¹²

Throughout the NSS process, the FMWG has been able to play a central role in part due to the fairness and transparency of the participating governments. In fact, shortly after the 2010 NSS in Washington D.C., FMWG leadership was approached to offer their partnership in preparation for the 2012 NSS in Seoul, South Korea, in a similar manner as to the first official summit.

Rights and Responsibilities. Finally, how can we assess the ethics surrounding the NSS process vis-à-vis the rights and responsibilities taken on by different countries? As previously mentioned, all 47 countries at the 2010 NSS committed to a joint communiqué and work plan, and they jointly share their "role" as countries leading the effort to secure worldwide vulnerable materials. The NSS communiqué is considered "a high-level political statement to strengthen nuclear security and reduce the threat of nuclear terrorism."¹³ Among other things, the communiqué:

- Endorses President Obama's call to secure all vulnerable nuclear material in four years and pledges to work together toward this end;
- Calls for focused national efforts to improve security and accounting of nuclear materials, and strengthen regulations;
- Seeks consolidation of stocks of fissile materials and reduction in the use of highly-enriched uranium;
- Seeks to ensure that bilateral and multilateral security assistance would be applied where it can do the most good; and
- Encourages the nuclear industry to share best practices for nuclear security without restricting countries from enjoying the benefits of peaceful nuclear energy.

The NSS participants paired the more visionary language of the communiqué with a detailed work plan that lays out specific steps for meeting the goal of securing all vulnerable fissile materials. Steps in the work plan include ratification and implementation of international treaties on nuclear terrorism and security; multilateral cooperation through international bodies like the UN and IAEA; improving national regulatory and legal systems against nuclear terrorism; converting civilian facilities that use HEU to non-weapons-usable materials; education

and training to ensure that national nuclear security infrastructure and personnel are well-equipped to deal with 21st century threats; and joint exercises among law enforcement and customs officials to enhance nuclear detection approaches.¹⁴

Despite this rigorous level of detail, the communiqué and work plan are laced with qualifying language and are non-binding documents. For instance, the texts include terms like "as appropriate," "as soon as possible," and "as requested." Therefore, progress on global nuclear security will really depend on the rigor of implementation. One positive anticipated outcome of the 2012 Summit in Seoul is that it will be a "forcing event" for countries to make good on these voluntary commitments.

Finally, and in addition to the responsibilities taken on in the communiqué and work plan, many leaders made country-specific goals which became known colloquially as "house gifts." For example, Chile removed all its HEU (18 kilograms) in March 2010, while the Philippines joined the Global Initiative to Combat Nuclear Terrorism, and several countries announced they would create new "centers of excellence" to promote nuclear security technologies and training. A year after the Summit, 60 percent of the national commitments made have been completed, and notable progress has been achieved on another 30 percent.¹⁵ The forcing mechanism of the next Summit will prompt the remainder of the commitments to be completed and more "house gifts" to be made, keeping the process moving forward. The "Sherpa" teams have been meeting regularly and civil society groups, like the Fissile Materials Working Group, continue to play a complementary role to the official process by engaging their nongovernmental and governmental counterparts to gather international perspectives; offer policy recommendations; and liaise with the public through the media and Members of Congress.

Conclusion

In sum, the Nuclear Security Summit is both effective and ethical: the process is pluralistic and fair; it identifies demanding but achievable goals; and it provides each country involved with roles and responsibilities for the many urgent challenges in nuclear security.

How will this process fare in the future? First, future NSS "hosts" may not be as transparent and fair as the United States, especially when it comes to civil society engagement. Civil society in the United States is strong and robust, yielding a significant amount of impact in foreign policymaking. Civil society can also more easily, and without repercussions, shine a light on action or inaction on the nuclear security agenda. Second, what will happen if not all 47 nations complete their commitments by 2012? Will some countries be penalized for not implementing what they promised they would, even if some commitments are more difficult than others? Will there be a split in the unity of NSS countries? Pluralism may begin to break down in this potential dichotomy. Finally, there may be a breakdown in roles and responsibilities depending on the focus of future summits. The 2012 Summit in Seoul may also include on the agenda radiological security and nuclear safety, two issues that were not included in the 2010 Summit. Might countries with less of an interest in these two new agenda items take a back seat? Will consensus be even harder to obtain, therefore "watering down" a future communiqué and work plan?

Making the most of these challenges will require much hard work. It is our responsibility to uphold the ethical values built into the NSS process and demand that our national leaders hold true to the unique process that began in April 2010.

NOTES

¹ Rolf Mowatt-Larssen, "[al-Qaeda's Nuclear Ambitions](#)," November 16, 2010, *Foreign Policy*.

² Charles Meade and Roger C. Molander, "Considering the Effects of a Catastrophic Terrorist Attack," technical paper, RAND Corporation, 2006.

³ "[Nuclear Terrorism: Local Effects, Global Consequences](#)," white paper by Saga Foundation, July 2008.

⁴ Matthew Bunn, "Securing the Bomb 2010: Securing All Nuclear Materials in Four Years," April 2010. Table 3.6 offers a good summary of the various elements of the international nuclear security regime.

⁵ On July 8, 2009, U.S. President Obama made a speech at the G8 summit in L'Aquila, Italy, announcing his plans to host a global nuclear security summit, which the White House summarized. (<http://www.armscontrol.org/print/3824>)

⁶ For more information on the threat posed by vulnerable fissile materials, nuclear terrorism and policy recommendations for dealing with this threat, please visit the [Fissile Materials Working Group \(FMWG\) website](#). The FMWG is a nongovernmental coalition of over 40 U.S. and international experts representing many of the top nonproliferation and nuclear security organizations in the world. Members of the FMWG collaborate in a series of

meetings designed to create consensus behind top fissile materials priorities, develop actionable policy proposals, and package recommendations for implementation by U.S. and foreign government officials.

7 The Non-Aligned Movement is a group of 118 member and 20 observer countries who consider themselves not formally aligned with any major power bloc. More information can be found at <http://www.nam.gov.za/index.html>.

8 [White House blog post, April 13, 2010](#).

9 [2010 Nuclear Security Summit Communiqué](#), p. 1.

10 For more information about the FMWG, see <http://www.fmwg.org>.

11 [Final report from the "Next Generation Nuclear Security" summit](#), April 12, 2010.

12 Video of the FMWG April 13, 2011, conference in Vienna, Austria, available online: <http://vimeo.com/23131825>.

13 [2010 Nuclear Security Summit Communiqué](#).

14 2010 [Nuclear Security Summit Work Plan](#), April 13, 2010.

15 Robert Golan-Vilella, Michelle Marchesano, and Sarah Williams, "[The 2010 Nuclear Security Summit: A Status Update](#)," April 2011, Arms Control Association and Partnership for Global Security.

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