



THE SEOUL NUCLEAR SECURITY SUMMIT: HOW MUCH OF A SUCCESS?

By Miles A. Pomper

Abstract

The Seoul Nuclear Security Summit held in March 2012 was a watershed event for South Korea. It marked by far the largest gathering of world leaders on South Korean soil. The summit also further cemented the already remarkably close ties between the current U.S. and ROK governments, and offered a showcase for the country's burgeoning and increasingly export-oriented nuclear industry.

The summit's ultimate impact is unclear, however. Despite the summit's incremental steps forward on nuclear security, it seems clear that participants will fall far short of their ultimate goal of securing all vulnerable fissile materials when a four-year push initiated by the United States ends next year. That has led the United States and South Korea to chart out different paths for the future of the summit process, with Seoul advocating a more ambitious course and Washington a more conservative one. And while the summit polished South Korea's global nuclear reputation, it remains to be seen how much the effort will further Seoul's goals to win new contracts overseas and obtain concessions in bilateral nuclear negotiations with the United States.

Introduction

The Seoul Nuclear Security Summit held in March 2012 was a watershed event for South Korea. It marked by far the largest gathering of world leaders on South Korean soil, offering a visible demonstration of the ROK's rise to global prominence. In continuing a series of meetings initiated by President Obama two years ago, it further cemented the already remarkably close ties between the current U.S. and ROK governments. By giving Seoul a lead role on a crucial issue affecting nuclear energy, it offered a

showcase for the country's burgeoning and increasingly export-oriented nuclear industry.

The South Korean government made the most of the opportunity, operating the anti-nuclear terrorism summit with military-like efficiency for the fifty-plus governments in attendance. Seoul provided a theme song, catchy logo and endless banners proclaiming "beyond security, towards peace." Troops and police officers were out in force, worsening already dreadful Seoul traffic as they rerouted vehicles away from the summit site.

It's not clear, however, if the summit's impact will last much longer than the temporary barriers at the COEX center. Despite the summit's incremental steps forward on nuclear security, it seems clear that participants will fall far short of their ultimate goal of securing all vulnerable fissile materials when a four-year push initiated by the United States ends next year. That has led the United States and South Korea to chart out different paths for the future of the summit process, with Seoul advocating a more ambitious course and Washington a more conservative one. And while the summit polished South Korea's global nuclear reputation, it is not clear how much the effort will further Seoul's goals to win new contracts overseas and obtain concessions in bilateral nuclear negotiations with the United States.

Background

Since taking office in January 2009, President Barack Obama has made nuclear weapons issues a centerpiece of his foreign policy. Not only did his well-known April 2009 speech in Prague call for seeking a "world without nuclear weapons," Obama also brought a new level of attention to the problem of nuclear security: preventing terrorists from stealing nuclear materials

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or threatening nuclear facilities.¹ For decades, such efforts had received attention only at lower levels of government. However, since the 9/11 terrorist attacks, concerns had grown that nuclear materials—especially those from less secure, civilian facilities—could fall into the hands of hostile, non-state actors. Beginning with President George W. Bush, the United States had ramped up its efforts to secure fissile material holdings at home and abroad. President Obama put his signature on the effort by bringing top-level attention to the issue.

The 2010 Washington Nuclear Security Summit

In his Prague speech, President Obama had identified nuclear terrorism as the most serious threat to international security and announced plans to hold a nuclear security summit in 2010. The 2010 Nuclear Security Summit (NSS) was convened in Washington with the intention of bolstering support for existing initiatives and strengthening international cooperation through a four-year intense effort.² The Washington summit's scope was intentionally narrow, focusing only on civil fissile materials (plutonium and highly enriched uranium) and sidestepping issues of securing radiological sources, creating guidelines for dealing with accumulations of separated plutonium, and securing military fissile material.³ To be sure the subject matter ranked low on the list of priorities for many other world leaders; nonetheless, they were eager to attend the summit as it gave them the opportunity to meet with and curry favor with a popular U.S. President and recent recipient of the Nobel Peace Prize. Delegates from forty-seven nations—one-third of IAEA members and one-quarter of UN members—attended, with thirty-eight delegations being represented by heads of state.⁴

Obama successfully leveraged his prestige by getting global leaders and their subordinates to give greater priority to a concern that they have too often seen as a U.S. responsibility and to bring some long-stalled nuclear security efforts to completion. But in terms of building a foundation for long-term nuclear security, the first meeting made only a limited contribution. The meeting produced a communiqué, which set broad goals, and a work plan that detailed objectives for all states. The work plan emphasized cooperation, whether through sharing information or coordinating efforts among states on various levels. Though all countries supported these documents, the commitments and goals were strictly voluntary, provided numerous caveats and only vaguely specified which new measures should be applied and in what time frame. Moreover, participation in the summit itself was

limited to a “coalition of the willing” in a desire to avoid diplomatic sideshows, but that also meant excluding some countries, like Iran and North Korea, with significant nuclear programs or fissile materials. In this way, the Obama administration was able to steer clear of controversy but also was hampered in tackling the nuclear terrorism threat.⁵

In many ways the most concrete progress from the Washington summit were individual state commitments, referred to informally as “house gifts.” The White House announced that fifty-four national commitments were made by twenty-nine countries. These included pledges to donate money to the IAEA, remove or secure nuclear material, prevent nuclear smuggling, ratify or support existing conventions and treaties, and convert reactors from running on nuclear-weapons-usable highly enriched uranium (HEU) to safer low-enriched uranium (LEU).

The last promise was particularly important. Unlike its cousin, plutonium, HEU is suitable for use in the simplest kind of nuclear weapon, a so-called “gun-type” bomb. In gun-type devices, one subcritical piece of fissile material is fired at another subcritical target. Together they form a critical mass and spark a chain reaction. The process is so simple and well understood that such a device does not need to be explosively tested; even the first such bomb, which was dropped on Hiroshima in 1945, was not tested prior to its use. Terrorists who acquired a sufficient quantity of HEU would not need to be backed by the scientific and financial resources of a state to construct such a nuclear device.

Yet even these important commitments were not an unqualified success. First, most of the pledges required minimal action on the part of the state and often reaffirmed initiatives already underway (such as Russia's plans to close its plutonium production facilities made prior to the 2010 NSS). Second, not all states made such commitments; almost half of them, in fact, left the summit without promising any deliverables beyond the vague commitments in the communiqué and work plan. Perhaps more problematically, states were able to set their own standards as to what constituted progress. Not surprisingly, they produced an international version of what has been called the “Lake Wobegon effect,”⁶ in which they might all claim to be leaders in achieving nuclear security. As a result, states could even claim success when they realized different levels of commitments toward the same goals. For example, some states pledged to ratify an important 2005 amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) that would require them to protect material held within their borders; therefore should they fail to fulfill their pledge they



would be judged as failing at nuclear security. However, others had not even ratified the underlying convention (governing materials in international transit), but since they did not pledge to do so, could not be said to violate a summit commitment. In addition, rather than being required to satisfy any hard and fast requirements, states could claim success with even token gestures such as pledging to “consider” initiatives or to conduct feasibility studies without taking concrete action either way.

Moreover, while the new national commitments were welcome, they merely added new swathes to the already vast and yet inadequate patchwork of international nuclear-security efforts. Nuclear standards on the ground and adherence to various treaties, guidelines and regulations vary greatly from country to country. The result is a nuclear-security regime with enough loopholes to drive a truck through (one hopes not literally).

The decision to have South Korea host the 2012 summit

At the Washington Summit, states also agreed that South Korea would host another nuclear-security summit in 2012. On the face of it, South Korea was a strange choice to host, given that it neither possessed nuclear weapons nor the materials to make them—highly enriched uranium and/or separated plutonium. But Obama’s first choice, Russia, turned down the opportunity, and South Korea’s president Lee Myung-bak was eager to raise Seoul’s standing on the global stage as part of his campaign for a “global Korea.” Holding the summit in Seoul also provided an opportunity for the country’s growing nuclear-energy industry to gain a global showcase for its wares.⁷ Over the past few decades, South Korea has emerged as the world’s fifth-largest nuclear energy producer and a new nuclear plant exporter. Its 2009 deal to sell four reactors to the UAE for \$20 billion has only whetted Seoul’s appetite for more such agreements with Korea’s government and industry competing eagerly to win a greater share of the global nuclear market.

Nonetheless, as the 2012 summit approached, many in South Korea—both politicians and average citizens—found the summit’s planned subject matter of only marginal interest. Questions about the wisdom of the summit became more frequent after renewed North Korean saber rattling and the March 2011 accident at Fukushima in neighboring Japan made resolving issues of nuclear proliferation and safety appear far more important. Nor was South Korea alone in this sentiment. Other countries shared similar

concerns, believing that the United States had devoted too much attention to the threat of nuclear terrorism at the expense of nuclear nonproliferation, safety and disarmament issues and the peaceful expansion of nuclear energy to developing countries.

The Seoul Summit: Successes and Setbacks

Success for Nuclear Security?

Intent on having the summit viewed as a success domestically and internationally, South Korea sought to assuage those domestic and international concerns while ensuring that the commitments from the 2010 summit were met.

To address domestic concerns after Fukushima, Seoul made a big push to focus part of the summit on nuclear safety issues, that is preventing accidental (rather than intentional) radiation releases. Under U.S. pressure, it narrowed this aspect of the summit to areas where nuclear safety and security overlap. But to both countries surprise, some developing countries challenged even this limited focus on nuclear safety issues. These countries argued that there were other international forums, such as within the International Atomic Energy Agency, where nuclear safety issues could be addressed. Ultimately, a lunch at the summit was dedicated to the subject and the communiqué called for nuclear security and safety measures to be “designed, implemented, and managed in nuclear facilities in a coherent and synergistic manner.”⁸

By including language in the communiqué on the interface between safety and security and urging the securing of spent fuel and nuclear waste, South Korea also sought to address concerns that terrorists might draw some unfortunate lessons from the Fukushima accident and seek to cause similar problems intentionally.

Another initiative sought to win support for the summit process from countries that, like South Korea, do not possess highly enriched uranium or separated plutonium. Led by Germany, the initiative focused on enhancing accountability and securing far more numerous and often more vulnerable radiological sources. These sources are used in thousands of civilian applications—such as the cesium chloride that many hospitals use to irradiate blood—and are often in locations that are far more open to the public than nuclear reactors. They are incapable of generating a nuclear explosion that can kill hundreds of thousands of people. But they can be used in “dirty bombs” which use conventional explosives to distribute the radiological materials, contaminating



areas and risking cancers and other health effects, and likely generating considerable public panic and economic costs.

Dealing with this threat makes good political and strategic sense, but the summit only made a small dent in the problem. It merely encourages states to ratify relevant international instruments and put relevant guidelines into national practice; establish registers of high-activity radioactive sources; and work cooperatively to maintain control over disused sources and recover lost, missing, or stolen sources.⁹ Given the significant scope and expense of addressing the issue, more concrete commitments are needed. South Korea showed initiative at this area at the summit by signing an agreement with Vietnam to establish a pilot program that would allow that Southeast Asian nation to build something akin to Korea's renowned radiological tracking system.

Procedurally, the commitment to radioactive sources was elaborated in a new type of international instrument pioneered by the summit, a "gift basket" in which certain states willing to move faster than others make a collective pledge. Other important gift baskets addressed such issues as information security (i.e., protecting against threats such as cyberattacks), anti-nuclear smuggling (where fourteen states pledged to fund such efforts) and minimizing the use of HEU in research reactor fuel (South Korea participated in the pledge and made an important technical contribution). And some states continued to make important announcements by themselves, such as Jordan's establishment of a counter-smuggling team.¹¹

South Korea had also made clear that one of its top priorities for the summit was to ensure that the national commitments made at the 2010 summit were carried out and its diplomats quietly prodded other countries to do so. Seoul was highly successful in this regard. According to an authoritative independent report, about eighty percent of the commitments had been met in the run-up to the summit and only two percent had failed to see any progress whatsoever.¹² Among the more important commitments to be met were the removal of 234 kilograms of highly enriched uranium from Ukraine to Russia and the establishment of a large number of Nuclear Security Training and Support Centers around the globe.¹³

Still, there were setbacks on implementation—even in the United States and South Korea. At the Washington summit, the United States had pledged to accelerate efforts to ratify two key nuclear security treaties, the 2005 amendment to the CPPNM and the International Convention for the Suppression of Nuclear

Terrorism (ICSANT). At that time, the treaties themselves had been endorsed by the Senate, but the full Congress still needed to pass legislation implementing the measures in U.S. law before the U.S. could ratify the treaty. Two years later, the situation hadn't changed; indeed, no one in Congress had even introduced the legislation. South Korea had made similar progress by the 2012 summit: the National Assembly had approved the treaties in 2011 but had also not yet passed implementing legislation.

More broadly, South Korea failed to see some of its important goals realized particularly on efforts to minimize HEU. France had led an effort, supported by the United States, to approve "HEU Management Guidelines," meant to encourage states to minimize HEU stocks, securely manage any HEU they had, and publicly declare their holdings of the material. But the French proposal ran into opposition from some developing countries (such as South Africa) who preferred to see the issue discussed within the International Atomic Energy Agency, not the summit or other outside process where they hold less sway. Similarly, South Africa beat back calls for it to downblend to LEU the more than 600 kilograms of HEU that it holds.¹⁴ And Russia, which has the largest number of civilian facilities using HEU, dashed hopes that it would commit to converting some of those facilities to the use of LEU. Indeed Russia, despite its outsize role in nuclear matters, failed to bring a single "house gift" and (along with Canada) was also an obstacle to an effort to set a 2015 deadline to convert all medical isotope production facilities from using HEU to LEU. Instead, the summit had to settle for an important, but lesser pledge by three European countries (Belgium, France, and the Netherlands) to meet that 2015 deadline for conversion.¹⁵

Most importantly, the summit once again failed to make sufficient progress on the core goal of securing all vulnerable fissile materials. Indeed, the administration would have no means of judging whether it was achieved: there are no minimum international legal standards for nuclear security, nor is there any requirement that a country's security be evaluated to ensure that it is meeting the standard. To be sure, summit participants did pledge in the communiqué to "strive to use" what are seen as IAEA baseline guidelines and "reflect them into national practice."¹⁶ Yet, if the threat of nuclear terrorism is to be reduced—and the nuclear-security-summit process to remain worthy of the attention of world leaders—it must at least make an effort to mandate such rules as a minimum legal standard and part of a broad framework for nuclear security.



The lack of movement in this direction was not the fault of South Korea, but of the United States. Washington was fearful that a more ambitious agenda would be blocked by resistance from states such as Russia and Pakistan, which are inclined to dismiss the threat of nuclear terrorism, as well as developing countries who fear that new nuclear security instruments would further hinder their nuclear security aspirations. The Obama Administration instead focused on chalking up dozens of small victories. The lack of a broader vision meant that South Korea and other participants were left trying to understand and to explain to their publics why any of these measures mattered. While it would have been too much to ask to have such global rules approved at the Seoul summit, it might have made some initial steps in this direction.¹⁸

In any case, some leaders have called for the next summit in 2014 in the Netherlands to move in this direction. For instance Australian Prime Minister Julia Gillard told the Seoul summit that:

*I think we need to establish an accountability framework on nuclear security that builds confidence beyond 2014. In that regard, one thing that we might consider would be regular peer reviews of our domestic nuclear security arrangements that would ensure ongoing transparency and keep each of us, and all of us, on our toes, which is where we should be as we deal with this challenge.*¹⁹

Success for Korea's interests?

While the summit results may have been a mixed success for nuclear security, it was unequivocally a step forward in achieving many of South Korea's national goals. Following on the heels of the 2010 G-20 summit, South Korea showed that it could once again serve as an excellent host for an important global event. By working with the United States, but clearly taking charge of the summit and putting forward its own initiatives, Seoul also showed again that it was an important player in its own right on the global stage. And by holding the meeting in a prosperous, thriving nuclear-weapon-free democracy—soon after North Korea had conducted long-range missile tests—South Korea offered a vivid and politically useful counterpoint to its northern neighbor.

Aside from the political gains from the summit, South Korea also scored indirect economic benefits. The ROK is seeking to build eighty reactors (worth \$400 billion) overseas by 2030 and was able to use the event to advance its commercial prospects in potential overseas markets.²¹ Shortly after the summit, Korea's state-owned Korea Electric Power Company (KEPCO)

announced that it was moving up its timetable for constructing the UAE nuclear reactors in a bid to boost future sales. Many of its potential customers attended the summit including Finland, India, Lithuania, Malaysia, South Africa, Turkey, and Vietnam. Shortly before the summit, Finland invited KEPCO to bid against Japan and France for the construction of its next plant; during the summit Korean officials met their Turkish counterparts at a time when South Korea is locked in a competition with China and Japan to build a nuclear power plant in Sinop, Turkey.²¹

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Those benefits were reinforced by an “industry summit” that nuclear energy leaders held in Seoul the day before the summit. Unlike a similar event in Washington, which served mainly as a platform for CEO chest-thumping, the Seoul industry meeting drafted a joint statement committing companies to take a number of important steps in areas such as HEU minimization, the nuclear safety/nuclear security interface, and information security.²² Seoul then followed this up by providing the visiting executives with a tour of South Korea's nuclear facilities, another opportunity to boost sales.

2014 and Beyond

The next and perhaps final nuclear summit is scheduled for 2014 in the Netherlands. Relevant White House officials have called for transferring responsibility for enhancing international efforts on nuclear security matters to international organizations such as the IAEA, UN Office of Disarmament Affairs, and the Security Council committee implementing a broad series of UN resolution on WMD materials. Other countries are also far from enthusiastic about continuing the summit process.²³

U.S. officials have also derided efforts to impose universal standards for security or require peer inspections as “chasing rainbows,” claiming they would make little headway as compared to the current country-by-country incremental approach. Laura Holgate who led day-to-day summit preparations for the United



States said after that summit that she was wary of “the notion of spending time now to actually negotiate new treaties when we can’t even get universalization of the existing treaties. I’d rather spend time with the doers than the ditherers and what the summit has done so far is empower the doers.”²⁴ Holgate instead suggested some lesser efforts that the United States or the nuclear industry could take on its own.

South Korean officials, by contrast, have called for the development of a “long-term vision” on nuclear security at the 2014 Summit and for strengthening the international legal regime on nuclear security significantly, including mandatory legal standards and a process of peer review. According to experts, several different strategies might be used to achieve this goal. One would be to develop a rigorous treaty among like-minded countries such as South Korea, Australia, and some European states and then seek to get other countries to sign on. Another might be having supplying countries use their leverage to condition any nuclear trade on such standards and peer review mechanisms. A third might be permitting IAEA safeguards inspectors to report back formally to the IAEA on security-related issues uncovered during inspections.²⁵ In any case, South Korean diplomats have said that they hope that a debate over the ultimate goal of this process, including a specific action plan will be held in the coming months and will result in adoption by the Netherland summit.²⁶

Relevant Korean officials have also differed from their U.S. counterparts in calling for an examination of different options for the summit process after 2014, including something akin to the U.S. approach, or perhaps less frequent or lower-level (i.e. ministerial) meetings.

Formally, the Dutch will lead the process to decide both these questions, but the ROK and the U.S. are expected to form the other two-thirds of the key decision-making troika. Korean officials also plan to work particularly hard during the next two years on coordinating and advancing efforts to improve nuclear safety and security and to develop technology to improve nuclear security.

Conclusion

As the summit recedes into the past, it is likely to leave a residue of good feelings around the globe about South Korea, and particularly its nuclear program. Those positive views may well bolster South

Korea’s nuclear exports, its role in the global nuclear policymaking and scientific communities, and support for its stance towards North Korea. Nowhere are these gains likely to be larger than in the United States, which is grateful to Seoul for successfully continuing a process begun by President Obama. Particularly if the two sides can narrow their differences over the future of the nuclear security summit process, those positive feelings should continue into the next U.S. and South Korean administrations.

Nonetheless, to what degree Seoul can spend the political capital it has accumulated is another matter. Seoul’s business hopes depend on many other factors, most notably questions about the future of nuclear power in a post-Fukushima world both in South Korea—where public support for nuclear power has dropped sharply—and outside the country. Nor will this gratitude translate directly into U.S. acquiescence to Seoul’s goal in nuclear cooperation negotiations. The two sides remain at odds over key aspects of how their nuclear cooperation will proceed after their current bilateral cooperation agreement expires in 2014. Seoul continues to press for Washington to grant it advanced consent to recycle (or pyroprocess) spent fuel and to enrich uranium. However, the United States has sought to limit the global spread of these technologies (including to South Korea) as they can be used to produce fissile material for nuclear weapons as well as fuel for nuclear reactors. If Seoul is ultimately to win U.S. support, it is likely to have to continue taking on greater leadership responsibilities in the global nuclear nonproliferation regime as well as resolve particular technical and political concerns about using such technologies.²⁷

In any case, few expect much progress to be made this year in negotiations for a new bilateral cooperation agreement. After all, both countries are consumed by presidential elections and neither country would want to risk a politically sensitive battle with their legislatures during an election year. Depending on the results of the election, Seoul and Washington may not enjoy the same kind of unusually close relations that they have seen during the Obama and Lee administrations. The outcome of those elections—as well as other steps taken by Seoul and Washington on nuclear security and nuclear nonproliferation—will determine the ultimate significance of the 2012 Seoul Nuclear Security Summit.



Endnotes

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- ⁵ This and the following paragraphs discussing the 2010 summit draw from Miles Pomper and Meghan Warren, "Progress Since the 2010 Washington Nuclear Security Summit: Successes, Shortcoming, and Options for the Future," presented at the Seoul Nuclear Security Symposium March 23, 2012.
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- ¹⁶ *Seoul Communique*, p. 2. In doing so, summit leaders perpetuated the shortcomings of the two international conventions that they support becoming universal. The 2005 CPPNM amendment lacks the specificity of the IAEA INFCIRC/225 standards while the ICSANT while supportive of these standards does not require them, contrary to the claims of some commentators. Article 8 of the ICSANT reads, "States Parties shall make every effort to adopt appropriate measures to ensure the protection of radioactive material, taking into account relevant recommendations and functions of the International Atomic Energy Agency."
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