Inching Forward at the Seoul Nuclear Security Summit

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A few days before Seoul hosted the official Nuclear Security Summit in late March, experts met to discuss progress on nuclear security. The keynote speaker, Dr. Graham Allison from Harvard University, suggested a strategy of three “No’s” to reduce future nuclear risks: no loose nuclear weapons or materials; no new national enrichment or reprocessing facilities; and no new nuclear weapon states. This strategy links traditional “nuclear security”—physical protection of nuclear material—with nuclear nonproliferation and fuel cycle management. Yet at the summit a few days later, the 52 heads of state, along with leaders of four international organizations on nuclear terrorism, focused on doing exactly the opposite: separating out nuclear security from nonproliferation, and putting as much distance between the growth of nuclear power and nuclear risks as possible. The result: underwhelming progress and no surprises.

Modest Contributions

The 2012 Seoul summit was the midway point for securing the world’s most vulnerable nuclear materials in four years, with the Netherlands agreeing to host the next summit in 2014. The Seoul agenda primarily targeted nuclear material security, while stressing the importance of other topics: security of radiological sources, information and transportation security, combating illicit trafficking, nuclear safety in the post-Fukushima environment, and fostering a nuclear security culture. Korean officials emphasized their intention to focus on practical progress in nuclear security, but also to expand the objectives of the summit to engage a wider audience.

As a reinforcing mechanism, the Seoul summit undoubtedly helped facilitate completion of commitments from 2010, including the ongoing removal of highly enriched uranium (HEU) from Ukraine and Mexico, and conversion of a few research reactors. Concrete plans were hatched: the United States, Belgium, the Netherlands and France agreed to eliminate HEU use in medical radioisotope production by 2015, and South Korea, the United States, Belgium, and France will develop substitute fuels for research reactors in the next few years. What did not happen was perhaps more important: Russia, with its huge stockpiles of HEU and plutonium, offered very little; some countries with significant amounts of nuclear material did not attend (e.g., Belarus and North Korea); and others—South Africa and Pakistan—did little to eliminate risks that their material poses to the international community.

There were a few innovations, however. Seoul summit organizers created “baskets” of issue areas—essentially joint working groups on specific topics like transportation security or national legislation implementation. With strong leadership, these groups could actually make some progress in the next two years. Unfortunately, the creation of these groups has taken the spotlight off individual states. Whereas the 2010 Washington summit
encouraged states to highlight their own accomplishments and thus trained the spotlight on them, the Seoul process has done little to enhance transparency. No approach yet has attempted to address the underlying problem for nuclear security: in a regime without enforceable standards, relying on national sovereignty is a recipe for doing very little.

**Limits of Summity**

South Korea worked hard to ensure a successful summit, but summits may not be the best tool for significant improvements in an area like nuclear security. Moreover, the choice of Seoul may have needlessly complicated the process. Despite best efforts, the specter of North Korea’s nuclear threat could not be banished. The media and the public wondered why the summit did not address North Korea and Iran—the two biggest nuclear threats of the last decade.

Second, the choice of South Korea inevitably introduced a drive to “rehabilitate” nuclear energy after the March 2011 accident at Japan's Fukushima Daiichi nuclear power plant. Several leaders at the summit—particularly President Lee Myung-bak—linked nuclear safety, nuclear security, and nuclear energy growth. In principle, it is hard to find fault with the reasoning that sustainable nuclear energy requires enhanced nuclear safety and security. However, leaders failed to connect the dots between nuclear fuel cycle choices and their impact on nuclear security. This is a particularly important issue for Asia. Despite the Fukushima Daiichi accident that brought nuclear expansion to a grinding—if temporary—halt, Asia may be the only region to move forward with nuclear power expansion in the future. Countries in Southeast Asia—Vietnam, Malaysia and Indonesia—are all exploring the option of nuclear power. In Japan, the nuclear energy industry is struggling with the future of fuel cycle enrichment and spent fuel reprocessing, and export capabilities. South Korea is looking to export more nuclear power plants beyond the United Arab Emirates, and is seeking a wider complement of fuel cycle capabilities to enhance its competitiveness—uranium enrichment and spent fuel reprocessing, specifically pyroprocessing. Finally, China, with its enormous appetite for energy, will continue to expand its nuclear power program, including enrichment and reprocessing capabilities.

Without widespread agreement that uranium enrichment and spent fuel reprocessing increase nuclear risks, including the risk of nuclear terrorism, it will be difficult to limit their growth. This is another area where national sovereignty plays a disproportionate role in the narrative about rights and responsibilities. Over half of the separated plutonium worldwide is in the civilian fuel cycle. If plans by China, South Korea, Japan, Russia, and India to move forward with fast reactors are realized, the use of either HEU or plutonium in fuel would expand exponentially. Asia needs to take the lead in exploring collaborative ways to reduce the risks posed by fuel cycle facilities as it considers its own nuclear future.

**Looking Ahead**

With such modest progress, should we sustain the summit process beyond the Netherlands in 2014 or find alternatives? Countries need to move beyond the protections of sovereignty in nuclear safety, security, nonproliferation and disarmament for the sake of reducing nuclear risks across the board. One approach would be to use a broader definition of nuclear security—freedom from nuclear risks—as the lens through which to view all actions related to reducing nuclear risks, whether they cover nuclear weapons or materials. A single unifying focus would replace the currently unworkable arrangement experts have embraced for forty years—that is, the linkage of nuclear disarmament, nonproliferation and peaceful uses of nuclear energy has only resulted in a standoff. A more equitable—but not necessarily easier—approach is essential for completing all the tasks that true nuclear security demands.