Exporting Nuclear Norms through Middle Power Diplomacy

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By James E. Platte

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In 2018, the first four Westinghouse-designed AP1000 reactors ever constructed were connected to the electricity grid in China, but this milestone also marked the completion of all contracted US nuclear reactor export projects. While US vendors once dominated global nuclear reactor exports, decades of stagnation in the domestic nuclear industry has tracked with the decline in US reactor exports. With Russia now leading the world in reactor exports and China pushing to secure more contracts, there is concern that Moscow and Beijing will replace Washington in setting norms on nuclear safety, security, and nonproliferation around the world. Yet, the United States remains a preferred partner for many potential importers, and long-time US partners in Japan and South Korea are eager to increase collaboration with US firms to compete with China and Russia and enforce robust norms. The ability of Seoul and Tokyo to use middle power diplomacy to spread norms would be key to maintaining US influence on global nuclear norms, even if US nuclear vendors are not leading construction of reactors overseas.

Japan and South Korea have cooperated with the United States on nuclear energy since the 1950s. While both countries have become self-sufficient in reactor design, construction, operation, and maintenance, they have maintained strong industrial ties with US nuclear vendors in export markets, such as the GE-Hitachi Nuclear Energy joint venture and Westinghouse's participation in Korea Electric Power Company's construction of four nuclear reactors in the United Arab Emirates (UAE). Instead of venturing out on their own in the reactor export market, nuclear industry representatives in Japan and South Korea continue to express their desire to work with the United States on reactor export projects.

Neither Japan nor South Korea is a great power with the ability to unilaterally set global norms, but their status as middle powers give them the ability to spread and enforce robust nuclear norms. A 2015 report by the East Asia Institute (EAI) argues that middle powers "derive their status from being a part of a network" and "function as a collective." Acting as a bridge or connector in the

network, middle power diplomacy "aligns great powers and smaller powers together, and as long as a middle power keeps genuine its intentions of contributing to the greater international good, they cannot be accused of harboring hegemonic intentions... a middle power acts as 'norm diffuser.'" The EAI then describes four identities that middle powers can adopt in pursuing this type of diplomacy: early mover, bridge, coalition coordinator, and norm diffuser.

In the global nuclear market, Japan or South Korea could possibly take on any of these four identities individually or in combination. Both countries were early movers in adopting nuclear power and US norms, and other developing countries could learn from the example set by their commercial nuclear industries. Seoul or Tokyo could operate as bridges or coalition coordinators between the United States and other nuclear exporters or countries looking to start a nuclear energy program. Finally, arguably the most important role that Japan or South Korea could play in the nuclear export market is that of a norm diffuser, spreading US norms on nuclear nonproliferation, safety, and security. Employing middle power diplomacy, Seoul or Tokyo can work to diffuse US nuclear norms on their own, but each country prefers to work as a bridge or coordinator to keep the United States involved in setting global nuclear norms.

In practice, coordinating coalitions that include US firms would require that importing countries sign 123 Agreements with the United States, which would impose strict nonproliferation requirements on recipient countries. Norms on safety and security would then be transferred and enforced through cooperation with the International Atomic Energy Agency (IAEA), US Nuclear Regulatory Commission, and private sector firms and government organizations from Japan, South Korea, and the United States. This model of cooperation with the United States was used for South Korea's reactor exports to the UAE.

There are challenges this model of middle power diplomacy on nuclear norms would face. The domestic nuclear industries in Japan and South Korea both face uncertain futures. The Japanese industry is struggling to restart reactors after the Fukushima nuclear disaster, and South Korea's current government announced a policy to phase out nuclear power. In addition, while Japan and South Korea hold similar views on nuclear norms and work together in some multilateral forums, bilateral diplomatic and trade tensions and the strategic nature of nuclear technology would make closer cooperation in the nuclear export market more difficult. This would mean that Seoul or Tokyo likely would act individually as a coordinator or bridge, rather than forming a bilateral partnership to act in these roles together.

Despite these challenges, policy makers and industry representatives in the United States, Japan, and South Korea should consider the policy implications of this middle power model. First, Japan and South Korea are committed to preserving the existing system of nuclear norms espoused by the United States and the IAEA. They can spread these norms by building on their existing export practices that stipulate adhesion to IAEA norms, establish education and training programs for other countries' nuclear programs, and providing world-class nuclear technologies.

Second, the United States can still lead from a supporting position. The domestic US nuclear industry likely will continue to struggle for the foreseeable future, which will make it even harder for US vendors to win future reactor export contracts, but with Seoul or Tokyo acting as a coordinator, Washington can still provide leadership on enforcing strict safety, security, and nonproliferation norms around the world.

Third, Japan or South Korea could be a bridge to nuclear cooperation with countries in regions where nuclear energy is expected to grow, such as the Middle East, Southeast Asia, and Eastern Europe. Washington has had challenges in concluding 123 Agreements in a timely fashion with numerous countries, sometimes over concerns related to transparency and perceived levels of commitment to international norms. Japan or South Korea could act as a bridge between Washington and prospective partners in coming up with agreements that meet the needs of all parties. For example, Seoul could build on its experience with the UAE and bring together coalitions to work with other markets in the region (Jordan, KSA, etc.) while still enforcing US and IAEA nuclear norms.

Finally, working in coalition may be the key to becoming more competitive with China and Russia. Working as middle power coalition coordinators, Japan or South Korea could increase competitiveness by assembling consortia with the United States and other like-minded countries to make stronger, more cost competitive supply chains to back reactor export proposals. Competitiveness could be increased further by marketing reactor designs that Japan and South Korea have recent experience building and offering other goods and services, such as arms sales or infrastructure development projects, to bolster their reactor export bids.

The international nuclear power industry is in a much different state today than it was when the United States began exporting nuclear technology in the 1950s. At that time, the United States was the global leader in nuclear technology and the most dominant actor in setting international nuclear norms using bilateral agreements and multilateral instruments. As the domestic US nuclear industry struggled over the last few decades, other countries have risen to prominence in the global nuclear market, primarily Russia and an ascendant China. But the United States now has very capable middle power partners, namely Japan and South Korea, who can continue spreading and enforcing robust nuclear norms in coalition with US firms. With much of the anticipated growth for nuclear power expected to occur in developing countries with little or no experience operating commercial nuclear power plants, it is critical that the United States, Japan, and South Korea work together to increase their competitiveness in securing contracts and enforcing norms.

This brief is an adaptation of an article, "Exporting Nuclear Norms: Japan and South Korea in the International Nuclear Market," published in the Air Force Journal of Indo-Pacific Affairs on June 8, 2020; that article can be found here:
https://www.airuniversity.af.edu/JIPA/Display/Article/2210987/exporting-nuclear-norms-japan-and-south-korea-in-the-international-nuclear-mark/

Dr. James E. Platte is an Assistant Professor with the US Air Force Center for Strategic Deterrence Studies at Air University, where he is the lead instructor for the Deterrence Research Task Force. Dr. Platte previously worked on nuclear counterproliferation with the Department of Energy Office of Intelligence and Counterintelligence, Defense Intelligence Agency, and the National Nuclear Security Administration. He received his PhD in International Relations from the Fletcher School of Law and Diplomacy at Tufts University and has held research fellowships with the National Bureau of Asian Research, East-West Center, Pacific Forum, Council on Foreign Relations, and the Harvard Kennedy School. He broadly is interested in the military and commercial applications of nuclear energy, and his research particularly focuses on nuclear issues in East Asia, including North Korea's nuclear program, US extended deterrence, and the proliferation of nuclear technology across the region.

Global America Business Institute | 1001 Connecticut Avenue NW, Suite 435, Washington, DC 20036 | 202-499-7979 | FLL@thegabi.com | www.thegabi.com

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