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The Third Way: Japan's Policy on Nuclear Energy

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On April 14, 2015, a Japanese court ordered a halt to the government's plan to restart the Takahama Nuclear Power Plant. The ruling cited safety fears, whereas the Japanese nuclear regulatory watchdog had given the operation its consent. There are currently 48 commercial reactors in Japan, all of which remain offline after the Fukushima nuclear accident in 2011. The Japanese government has been criticized for its insistence on viewing nuclear energy as an important base-load power source despite its official policy of reducing dependence on nuclear energy.

But restarting nuclear reactors—assuming that they meet the revised safety requirements—does not necessarily contradict that policy inasmuch as the transparency of the safety review process is guaranteed. Moreover, the issue is intertwined with broader concerns that extend beyond Japan's borders, including U.S.-Japan relations and the international nonproliferation regime. It is this international context, often overlooked in Japan and elsewhere, that makes it unrealistic and rather dangerous for Japan to immediately abandon nuclear energy altogether.

A half century ago, the study group on nuclear capabilities known as the Thompson Committee under the Lyndon B. Johnson administration recognized the necessity of promoting Japan's endeavors in the civilian nuclear field. Following China's 1964 nuclear test, the scenario that Japan might build its own A-bomb became more plausible than ever. By then, Japan had the technological potential to develop nuclear weapons. The Japanese public, however, had a strong antipathy toward the use of nuclear power for military purposes, though supported its peaceful applications. Under those circumstances, the United States tried to guide Japan, by means of technological assistance, toward developing an exclusively civilian nuclear program instead of pressuring its ally to suspend all nuclear activities.

America's nonproliferation leadership through the promotion of peaceful uses, however, underwent a major crisis in 1977, when the Carter administration declared a halt to the reprocessing of spent nuclear fuel and asked other countries—including Japan—to adopt a similar policy. President Carter and his advisers feared that plutonium retrieved via reprocessing, ostensibly for refueling power plants, might be diverted to producing nuclear weapons. However, Japan rejected Carter's demand, believing that reprocessing was critical for making the use of uranium in power generation more efficient and for strengthening energy security.

Following negotiations, the United States eventually accepted Japan's position, while Japan agreed to assist the U.S.-led nonproliferation initiative by sharing sensitive data obtained at nuclear facilities that could be beneficial in developing proliferation-resistant technologies. Essentially, the start of Japan's civilian nuclear program and its success in developing sensitive technologies are because of the U.S. determination to thwart further nuclear proliferation.

Meanwhile, Japan became a "loyal" customer for American nuclear vendors, whose business had suffered for many years after the Three Mile Island accident in 1979. GE and

Shinsuke Tomotsugu, Associate Professor at the Institute for Peace Science at Hiroshima University, explains that "Japan's decision to restart its nuclear power plants is rational, assuming these reactors meet strict safety standards."

The East-West Center promotes better relations and understanding among the people and nations of the United States, Asia, and the Pacific through cooperative study, research, and dialogue. Established by the US Congress in 1960, the Center serves as a resource for information and analysis on critical issues of common concern, bringing people together to exchange views, build expertise, and develop policy options.

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Westinghouse formed capital and business alliances with Japanese manufacturing giants Hitachi and Toshiba, respectively. These corporate partnerships were another way in which the U.S.-Japan collaboration deepened in the nuclear field.

Beyond the bilateral framework, Japan and the United States also became global partners both in the civilian nuclear field and in the nuclear nonproliferation regime. Since the late 1970s, a sort of gentlemen’s agreement emerged in the form of the Nuclear Suppliers Group (NSG). Its members forgo exporting sensitive technologies to states failing to meet certain standards in terms of nuclear nonproliferation. As the NSG membership has grown, it has become more important for the United States and Japan to maintain their political leadership among the suppliers.

Today, a growing number of states, especially in the global “South,” are interested in nuclear energy. Even if the United States and Japan do not export nuclear power plants, other countries like South Korea, China, and Russia will do so. Several years ago, Russia offered nuclear cooperation to Myanmar, even while the latter was under a military dictatorship. It also constructed the Bushehr nuclear plant in Iran. Moscow tends to use ties with pariah states as political leverage in international venues. Still, the NSG can potentially contribute to creating international nonproliferation norms that every state must follow in the field of atomic energy.

Japan and the United States can also enhance the nonproliferation regime by continuing to be major exporters in the civilian nuclear sector. Again, Russia’s recent behavior makes the geopolitical merit of having multiple suppliers clear. Russia has exported commercial reactors to Finland, Ukraine, and some Eastern European nations. Presently, Russia can potentially use the supply of nuclear fuel to those countries as a bargaining chip. Interestingly, Westinghouse can provide nuclear fuel that can be loaded into those Russian-designed reactors. Finland has used that option once, and Ukraine recently did the same. In an attempt to prevent its clients from securing fuel from the West, Russia has repeatedly warned that it cannot guarantee the safety of these plants if Western fuel is used. This episode illustrates that the plurality of suppliers may be a key factor in ensuring energy security for some countries.

Japanese public opinion will not allow the government to return to the “old normal.” Japan is a highly seismic country with a dense population; it cannot help minimizing its dependence on nuclear energy in the long term. Still, Japan’s decision to restart its nuclear power plants is rational for several reasons, assuming these reactors meet strict safety standards.

First, Japan has pledged in international forums not to store plutonium that does not have a specific end use; it is intended for use only as recycled nuclear fuel. However, the current suspension of all reactors has meant that previously separated plutonium remains unused. Restarting reactors will help solve this problem. Second, reestablishing Japan’s nuclear energy supply system in a way that incorporates the lessons from the Fukushima disaster helps other states build a more robust nuclear safety system. Finally, exporting nuclear materials requires and enables U.S.-Japan joint vendors to maintain high-level nuclear technologies, skills, and knowledge, thereby helping both states maintain political leverage in terms of nonproliferation.

Therefore, the immediate abandonment of nuclear energy is probably not a wise policy. The better option for Japan would be to explore several technological solutions. For instance, as advocated by Nobuo Tanaka, former director of the International Energy Agency, Japan should seriously consider the development of an integral fast reactor, which is characterized by its proliferation resistance, reduces the amount of separated plutonium, and uses passive safety measures that do not require human intervention in the case of an accident. In short, the most productive approach for Japan would be to develop innovations that help the nuclear phase-out while simultaneously improving the current nuclear technology systems.

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