The North Korean Nuclear Crisis and Prospects for the ROK-U.S. Nuclear Cooperation Agreement

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Smart Q&A

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Interviewee

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With the upcoming expiration of the Republic of Korea (ROK)-U.S. Nuclear Cooperation Agreement in March 2014, South Korea is demanding that the United States lift the ban on reprocessing spent nuclear fuel so that South Korea can develop the pyro-processing technique to manage its nuclear waste. The U.S. continues to reject the request, however, voicing its concerns over international nuclear proliferation risks, especially in the midst of the North Korean nuclear threat. On April 16, EAI invited Bong-Geun Jun, professor at the Korea National Diplomatic Academy, to discuss the prospects of the ROK-U.S. Nuclear Cooperation Agreement and its implications for South Korea.

Q1: What are the key issues regarding the revision of the ROK-U.S. Nuclear Cooperation Agreement?

A1: "U.S.' opposition to South Korea's attempts to develop pyro-processing for nuclear power persists. South Korea hopes to strengthen its energy security and export competitiveness in the energy industry while the U.S., upholding nuclear non-proliferation, strictly opposes the emergence of a new nuclear nation."

- Since South Korea and the U.S. show a clear difference in their positions, it will be difficult to
 find consensus on the Nuclear Cooperation Agreement. The positions of South Korea and the
 U.S. can be summarized by the former's request to develop uranium enrichment and nuclear
 reprocessing and the latter's adamant opposition.
- For the past twenty to thirty years, South Korea's remarkable advances in nuclear power have positioned it as one of the world's four major nuclear exporters. As a result, reprocessing of spent fuel has recently surfaced as an important issue. First, South Korea's dependence on foreign energy sources makes up approximately 97 percent of its total energy usage. For the sake of energy security, the high level of dependence on foreign energy sources makes it even more important to get access to cheap and reliable semi-domestic energy sources. Moreover, in order to solve the problem of securing stable sources of nuclear fuel, which is the most serious issue faced by South Korea in comparison with other leading nuclear power plant exporters such as Russia and Canada, South Korea needs to control the entire cycle of nuclear fuel production. Second, spent nuclear fuel is currently kept in temporary storage facilities which are expected to reach their maximum capacity in five to ten years. Even if the South Korean government constructs new interim storage facilities, without a proper waste management system it will be difficult to convince residents in the selected areas that it would be safe to build these facilities. In order to ensure the durability of nuclear power plants, South Korea needs to first solve the problem of spent nuclear fuel. Lastly, regarding future energy security, it is necessary for South Korea to develop pyroprocessing technology in order to pursue a nuclear energy system with fast reactors.

This product presents a policy-oriented summary of the Smart Q&A.

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- Since India's 1974 nuclear test, the U.S. has adhered to the nuclear non-proliferation principle and has always firmly opposed any countries that attempted to adopt nuclear reprocessing. For the past thirty to forty years, the U.S. has made significant efforts to strengthen the nuclear non-proliferation regime by seriously contemplating giving up its own nuclear reprocessing right. In fact, no country has been approved for uranium enrichment and nuclear reprocessing under U.S. leadership, with the exception of North Korea and Iran, which developed nuclear programs without consensus from the international community. Since the September 11 attacks, possession and use of weapons of mass destruction (WMD) by rogue states or terrorist organizations became the greatest concern to U.S. national security policy makers. This, in turn, forced the U.S. to further intensify its non-proliferation efforts, as can be seen in the role of the U.S. in the Proliferation Security Initiative, United Nations Security Council Resolution 1540, and the Nuclear Security Summit. The U.S., particularly during the Nuclear Security Summit meetings, has consistently emphasized the prevention of further nuclear proliferation to additional states and the safe management of existing nuclear materials. This action by the U.S. clearly shows that it correlates expansion of nuclear reprocessing facilities with the spread of nuclear material production. Thus, South Korea's desire to enrich and reprocess spent nuclear fuels is clearly a difficult issue for the U.S.
- Despite developing its nuclear power industry rapidly and successfully in the past twenty to thirty years, South Korea remains the only country to not have the right to pursue nuclear reprocessing out of the four major nuclear power plant exporters, including France, Canada, and Russia. It is necessary for South Korea to look for a way to pursue enrichment and reprocessing technology, while not undermining the U.S.' efforts toward non-proliferation.

Q2: What are the prospects for the ROK-U.S. Nuclear Cooperation Agreement with regard to the North Korea nuclear threat?

A2: "South Korea's claims for its own domestic nuclear program and nuclear weapons potential will be detrimental to the ROK-U.S. Nuclear Cooperation Agreement. It is likely that South Korea and the U.S. will fail to reach an ultimate agreement."

- The intensified tension on the Korean peninsula after North Korea's third nuclear test in February 2013 has impacted the ROK-U.S. Nuclear Cooperation Agreement negatively. The U.S. is concerned that granting South Korea the right to enrich uranium and reprocess spent nuclear fuels will cause greater difficulties in promoting North Korea's denuclearization. To make South Korea's request to develop the pyro-processing technique even more difficult, the public has increasingly voiced its support for South Korea's nuclear program development by ensuring its right to enrich and reprocess spent nuclear fuels. This has worsened U.S.' suspicion of South Korea's commitment to non-proliferation, thereby complicating the ROK-U.S. Nuclear Cooperation Agreement.
- It is highly likely that a final compromise on the ROK-U.S. Nuclear Cooperation Agreement will be postponed until a later time. The current pact is expected to be extended at least until a new means of compromise appears, the North Korea nuclear crisis enters the resolution phase, or the joint research on the feasibility of pyro-processing between South Korea and the U.S. ends. It is also possible that South Korea and the U.S. can come to a temporary compromise, as long as the U.S. adopts a more proactive approach rather than the current insistence on the non-proliferation principle in all nuclear cooperation agreements. Also, South Korea needs to accept the fact that its request for nuclear reprocessing rights may not be completely realized. In this case, the two countries might agree to discuss the issue of nuclear reprocessing rights in future negotiations by adding amendments. However the consultation between the two countries would go, it is clear that neither country would be able to achieve completely satisfactory outcomes from the ROK-U.S. Nuclear Cooperation Agreement.

Q3: What are your recommendations for South Korea regarding the ROK-U.S. Nuclear Cooperation Agreement?

A3: "A comprehensive nuclear non-proliferation partnership through the ROK-U.S. Summit meetings must be established."

- The Joint Vision for the Alliance of the Republic of Korea and the United States of America adopted in 2009 suggests that the ROK-U.S. alliance will move beyond a focus on peninsular security and military issues and into a "comprehensive strategic alliance of bilateral, regional and global scope." However, the Joint Vision does not cover nuclear cooperation issues in depth. Although South Korea has become one of the major nuclear energy states that also uphold non-proliferation, it appears that the U.S. maintains a perception of South Korea as a nation that once attempted to develop nuclear weapons program in the past.
- The primary task for South Korea is to change how the U.S. perceives it in order to build a relationship where it is viewed as a partner who is working toward the common interests of the international community in promoting nuclear non-proliferation. It is especially important to pursue a more future-oriented vision of the ROK-U.S. partnership for nuclear non-proliferation through the ROK-U.S. Summit Talks in May 2013. It is necessary to base the ROK-U.S. Nuclear Cooperation Agreement negotiations on this new vision of the partnership for nuclear non-proliferation.
- Second, as seen in Japan's case, the revision of the ROK-U.S. Nuclear Cooperation Agreement is not just an issue
 pertaining to diplomats, but rather an issue that requires total diplomacy. The industrial sector, research development
 sector, political sector, and the media should collectively work to advance national interests regarding nuclear
 development.
- Third, the ROK-U.S. Nuclear Cooperation Agreement is led by the Disarmament and Non-proliferation Division of the Ministry of Foreign Affairs and the Special Representatives for the ROK-U.S. Talks. The nuclear energy issue is central to South Korea's national interests because it involves nuclear power plant exports, reprocessing, and non-proliferation; therefore, there is a need to establish a division within the Ministry of Foreign Affairs that specifically focuses on nuclear non-proliferation.
- Fourth, expert groups and networks with a focus on South Korea's nuclear policy as well as nuclear policy research centers which will function as a hub for creating such expert networks, should be established. Strong collaborative networks between South Korean and U.S. expert groups will not only provide nuclear policy recommendations to the South Korean government but also contribute to better serving South Korea's long-term national interests in the future progress of the ROK-U.S. Nuclear Cooperation Agreement.

About the Interviewee

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Dr. Bong-Geun Jun is currently the director-general of the Department of National Security and Unification Studies at the Institute of Foreign Affairs and National Security, Korea National Diplomatic Academy. Dr. Jun received his Ph.D. in Political Science from the University of Oregon.

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