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South Korea and the Nexus between Science and Diplomacy: An Interview with Ambassador Lee Soo Hyuck

Ambassador Lee Soo Hyuck has served as the Ambassador of the Republic of Korea to the United States since October 2019. Prior to this, Ambassador Lee was South Korea’s Ambassador to Germany, First Deputy Director of the National Intelligence Service, and a Member of the National Assembly assigned to the Foreign Affairs and Unification Committee. A career diplomat, Ambassador Lee has participated in numerous international negotiations including the Six-Party Talks on the North Korean nuclear program in 2003 where he was the first Chief Negotiator of South Korea. Ambassador Lee spoke with Kim Montgomery, Director of International Affairs and Science Diplomacy and Executive Editor of *Science & Diplomacy*, on South Korea’s science diplomacy initiatives. This is the sixth interview as part of the Ambassador Interview Series.

Kimberly Montgomery (interviewer): *Since arriving in Washington, there has been the COVID-19 pandemic, a U.S. presidential election, and a complex security environment in the Indo-Pacific region. What have been your priorities as Ambassador to the U.S. and how do they relate to science, technology, and innovation?*

Ambassador Lee Soo Hyuck: My primary goals since becoming Ambassador have been to strengthen the Korea-U.S. alliance and promote the mutual benefit we both receive from it. Earlier this year, South Korean President Moon visited Washington D.C. and met with U.S. President Biden. The Presidential summit, which covered a wide range of issues, helped rejuvenate our alliance and strengthened the already solid partnership between our governments. The summit, which President Moon declared the most successful summit ever, was the most fulfilling summit of my diplomatic career. I was very pleased to have contributed to its success.

Following the summit, our countries continue to find additional ways to work together to address the global challenges we face. This includes at the Global Summit on Supply Chain Resilience hosted by President Biden, the G-20, and COP26, where we have cooperated on issues related to the global recovery from the pandemic, addressing the climate crisis, and maintaining key supply chains. Ultimately all these issues relate to science and technology because they are focused on finding a better understanding of a problem and a more efficient solution to it.

Montgomery: *During this Presidential Summit in May 2021, can you please expand on how were science, technology and innovation and their implications for U.S.-South Korea relations discussed?*

Ambassador Lee: Presidents Moon and Biden discussed several science and technology related subjects; the joint statement has a good summary of the key points. They agreed to promote research and development (R&D) partnerships and improve the people-to-people exchange in areas like artificial intelligence; information technology, including 6G; quantum technology; and biotechnology. They also committed to strengthening future-oriented partnerships in civil space exploration and to develop cooperation in the overseas nuclear market. These interactions led to Korea's recent agreement to participate in the Artemis Accords—the international accords between the countries that belong to the Artemis Program, the U.S.-led project to return humans to the moon by 2024—, as well as a recent Memorandum of Understanding to cooperate on Global Navigation Satellite Systems. The science discussions at the summit were vital because they led to increased governmental cooperation in emerging and critical technologies and left the door open for additional cooperation opportunities.

Montgomery: *South Korea invests significantly in R&D, has a high concentration of high-tech public companies, and has topped the Bloomberg Innovation Index for seven of the last nine years. This is particularly impressive given its recent history as a mainly agricultural country. What can developing and middle-income countries learn from South Korea's S&T trajectory and where does the country go from here?*

Ambassador Lee: We are committed to investing resources in critical technology developments, which helps create industry, increases the impact of science and technology on the economy and society, and provides investment for future R&D. South Korea has also tried to ensure that the advantages of technological developments are spread across society so they are fully appreciated. For example, we use electronic devices at every level of public education and have improved universal internet access to ensure that everyone has access to high-speed internet.

Our government has been very supportive of efforts to find and test efficient ways to develop new technologies. As you noted, this high-tech investment has been very effective, by allowing us to lead the world in 5G commercialization and the global information and communications technology industry. We have also focused on securing STEM talents to develop that technology infrastructure. Recently, our government has made progress in convergence technology, like COVID-19 testing, and is focusing on challenging new technology development in areas like space development. Last October, we launched "Nuri," our second space launch vehicle. Although the mission was not a complete success, we were pleased at the effectiveness of the first and second stage of boosters.

Montgomery: *An important element of science diplomacy is using scientific cooperation to improve relations between countries, particularly where diplomatic relations are strained. Throughout your diplomatic career, you have participated in numerous international negotiations, including being the first Chief Negotiator of South Korea in the Six-Party Talks on the North Korean nuclear program in 2003. Could you elaborate on the role science has or could play in increasing stability in the Korean Peninsula and in the broader Indo-Pacific region?*

Ambassador Lee: Science is politically neutral, so it can be a good starting point for multi- or bi-lateral communications, particularly in sensitive diplomatic areas. For example, the starting point to our discussions with North Korea about nuclear reactors during the Six-Party Talks was the scientific evidence for certain nuclear activities. By beginning with this topic, we could facilitate the negotiation based on scientific evidence which everyone could accept.

Montgomery: *Recently, South Korea made headlines by using K-Pop stars BTS as cultural Ambassadors during the United Nations General Assembly 76th session. A lesser-known aspect of South Korean public diplomacy is the role of science attachés at your diplomatic representations around the world. Can you tell us about science diplomats advancing Korea's foreign policy objectives?*

Ambassador Lee: We have 40 core offices for science and technology diplomacy through our Embassies and Consulate Generals around the world, including four in the United States in Washington DC, San Francisco, Boston, and Chicago. Our science and technology diplomats work closely with science and technology agencies in the U.S. to establish bilateral dialogue channels in different scientific sectors and to identify joint projects. These cooperation efforts strengthen the diplomatic trust between our countries.

Additionally, Professor Wonki Min, President of the State University of New York (SUNY) Korea was appointed Ambassador-at-large for Science, Technology and Innovation for South Korea in October 2021. He will support diplomatic activities in the science and technology sectors, recommend global science and technology strategies, and strengthen communication with internal and external stakeholders.

Montgomery: *How does South Korea's Ministry of Foreign Affairs (MOFA) collaborate with the country's scientific ministries and agencies, including the Ministry of Science and Information, Communications and Technology (MSIT) to advance international scientific cooperation? Can you provide an example of Korean diplomats and scientists working together on a major international scientific project?*

Ambassador Lee: Although the different ministries have different expertise, all national ministries cooperate at every stage by holding regular working-level meetings. An example is the Memorandum of Understanding signed with the U.S. to increase cooperation in Global Navigation Satellite Systems (GNSS) that I mentioned earlier. In those discussions, MSIT planned the Korean Positioning System project while MOFA worked on international cooperation matters with its U.S. government counterparts. Besides this cooperation between ministries, our diplomats also work closely with scientists and are not afraid to go to experts when they need scientific advice. We have excellent networks already established with the Korean American Scientists and Engineers Association in the U.S. as well as the Korean Federation of Science and Technology Societies. Most of the bilateral successes we have had in joint research projects of nanotechnology and quantum science, stem exchange programs, Artemis and GNSS cooperation, and Joint Fuel Cycle Studies have been a result of this collaboration.

Montgomery: *Given your experience as Ambassador in Germany and the U.S., Member of the National Assembly, and negotiator in international dialogues, what advice would you give to someone who is interested in working on international negotiations? Are the effective strategies different when the negotiations involve complex scientific and technology topics?*

Ambassador Lee: Successful negotiations require that all the parties have accurate and useful information. Therefore, in addition to the usual diplomatic requirements for negotiations—these include good communication skills, understanding of political affairs, and a global mindset—science and technology negotiations require that you have accurate scientific information from knowledgeable scientific communities. Scientists produce vital information in critical or urgent situations, which diplomats use to negotiate, as we have seen repeatedly during the COVID-19 pandemic. Without the help of our scientific experts, we would not have been able to have the successful consultations we have been able to have about the development and procurement of vaccines, to name just one issue related to this global crisis.

Montgomery: *South Korea is known for big cities, but also has beautiful beaches and islands. What science-related destinations would you recommend for people to visit in South Korea once travel is normalized?*

Ambassador Lee: Many Korean cities have science-related attractions, and I hope everyone can come to visit soon, in compliance with COVID-19 guidelines. Someone interested in science must see the Virtual and Augmented Reality displays at Sangam Digital Media Center in Seoul, where you can watch virtual K-pop performances. They should also go to Gwacheon—South of Seoul—to see the National Science Museum, which is similar to Washington’s Smithsonian National Museum of Natural History and Air and Space Museum and is always popular with children. In Daejeon, there is a complex of over fifteen government-affiliated research institutes in subjects like Biotechnology, Material Sciences, Space Development, Chemistry, and Geology. If you are interested in smart city technology, you should definitely visit the coastal city of Busan in the Southeast or Sejong, South Korea’s multi-functional administrative city, in the West Central region. Finally, setting aside science, there are few places in the world that are more beautiful than Jeju Island. **SD**

Disclaimer

This interview has been edited for length and clarity.