

Denuclearizing North Korea: Challenges and Opportunities after Hanoi



Sang Hyun Lee dissects the non-deal outcome between the U.S. and North Korea at the Hanoi Summit and what the future prospects for diplomacy are. Lee argues that, despite significant challenges, the best framework for eventual resolution lies in a comprehensive agreement implemented in a sequenced manner that envisages complete denuclearization, the signing of a peace treaty, and full normalization of relations as the end points of a long-term process.*

The long awaited second summit on February 27-28 in Hanoi between North Korean leader Kim Jong-un and U.S. President Donald Trump ended somewhat surprisingly with no agreement. Since the June summit in Singapore last year, progress on the denuclearization of the Korean Peninsula has been slow and sporadic. Both leaders have made cautious moves aimed at trust building, while North and South Korea have concurrently taken even bolder steps toward conciliation.

Still, the fundamental points of contention remain: North Korea has nuclear weapons, sanctions on Pyongyang persist, and a peace treaty to end the Korean War—which began in 1950—has yet to be signed.

As the second summit ended with no agreement, will negotiations with North Korea continue? Can expectations for a lasting peace be maintained, or will recent progress prove only illusory? Are we near the brink of an ultimate deal, or an inevitable collapse and disappointment?

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*** Editor's note:** *The author completed this article before President Trump's third summit meeting with Chairman Kim Jong Un at Panmunjom in June. Subsequent developments, including North Korea's short-range missile tests and the resumption of U.S.-South Korea military exercises, have thrown the continuation of diplomatic efforts into doubt.*

Reconstructing the Hanoi Summit

In order to answer these questions, it is necessary to briefly review what happened in Hanoi and why, contrary to many people's expectations, the meeting ended with no outcome. In fact, the Hanoi summit ended earlier than scheduled, with the cancellation of both a lunch and ceremony to sign a joint statement.

Essentially, the Hanoi summit failed for a very obvious reason: North Korea will not unilaterally eliminate its nuclear arsenal over the coming months or years. More specifically, failure can be attributed to the fact that the two sides do not appear to have a common understanding of the precise definition of complete denuclearization, in addition to differences over the scope and sequencing of denuclearization measures in exchange for sanctions relief.

At Hanoi, North Korea offered to shut down its fissile material production facilities, which can be used to make plutonium or highly enriched uranium (HEU), at the Yongbyon nuclear complex. In return for giving up the Yongbyon nuclear complex, North Korea asked for the removal of sanctions “in their entirety,” according to President Trump.¹ Later, North Korea's Foreign Minister Ri Yong-ho claimed that they had only asked for relief from United Nations Security Council (UNSC) sanctions imposed since 2016 that target North Korea's export of coal, iron, and other minerals; imports of petroleum; and other sectoral industries. (These sanctions are considered the most likely to isolate North Korea's economy if fully enforced.²)

For its part, the U.S. pressed North Korea to give up more than the Yongbyon complex. The U.S. intelligence community has long assessed that there are additional uranium enrichment plants outside of Yongbyon. Another complicating issue at the summit must have been whether and when North Korea will declare all of its nuclear weapons and related facilities. Accordingly, the U.S. wanted more than “just” Yongbyon for the scale of sanctions relief North Korea was requesting.

Follow-up analyses and media reports indicate that both sides were not ready to make a deal at Hanoi. Reuters, for example, reported that President Trump bluntly demanded from Kim Jong-un the transfer of Pyongyang's nuclear weapons and bomb

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fuel to the United States. According to the report, Trump gave Kim both Korean and English-language versions of the U.S. position which clearly defined what he meant by denuclearization. The document's existence was first mentioned by White House National Security Advisor John Bolton in television interviews he held after the two-day summit.

The document is believed to have represented Bolton's hardline “Libya Model” that North Korea has repeatedly rejected. Aside from the call for the transfer of Pyongyang's nuclear weapons and bomb fuel, the document contained four other key points. It called on North Korea to provide a comprehensive declaration of its nuclear program and full access to U.S. and international inspectors; to halt all related activities and construction of any new facilities; to eliminate all nuclear infrastructure; and to transition all nuclear program scientists and technicians to commercial activities.³

Table 1. Five Key UN Security Council Sanctions on North Korea

Date	Resolution	Key Contents
March 2, 2016	2270	Imposed sanctions after North Korea's 4 th nuclear and missile test in 2016. Sanctions include inspection of all passing cargo to and from North Korea, prohibition of all weapons trade with the country, additional restrictions on North Korean imports of luxury goods, and expulsion of certain North Korean diplomats suspected of illicit activities.
November 30, 2016	2321	Expanded sanctions after North Korea's 5 th nuclear test, including a ban on mineral exports such as copper and nickel, and the selling of statues and helicopters.
August 5, 2017	2371	Bolstered sanctions after North Korea's two intercontinental ballistic missile tests in July, including a ban on coal and iron exports.
September 11, 2017	2375	UNSC unanimously adopted this resolution to ratchet up sanctions following North Korea's 6 th and largest nuclear test.
December 22, 2017	2397	UNSC passed this resolution imposing new restrictions on oil imports, as well as metal, agricultural, and labor exports.

Stephen Biegun, Special Representative for North Korea, also reaffirmed that the United States' policy toward North Korea stands on the principle of final, fully verified denuclearization. According to him, this means the elimination of all weapons of mass destruction, their means of delivery, and the means to produce them. He even hinted that if the deal with North Korea was not good enough, no deal could be an option. He went on to state that it is “a cliché to say that failure is not an option, but that suggests that failure is a choice rather than a consequence.”⁴

The clearest answer for the Hanoi outcome came from President Trump himself. Later, speaking in an interview, Trump said Washington had sought to shutter five nuclear sites, but Pyongyang was only willing to close two.⁵ Trump's comments were among the clearest indications yet on why the Hanoi summit broke up without any agreement being reached.

High Expectations

Why, then, did both President Trump and Chairman Kim decide to go to Hanoi despite the uncertain outcome? Before the Hanoi summit, there was high hope that a deal would be reached. In his 2019 State of the Union Address, President Trump boasted of a planned meeting with North Korean leader Kim Jong-

un. Trump said, “Much work remains to be done, but my relationship with Kim Jong-un is a good one.”

Furthermore, just before the Hanoi summit, Vox News even reported that a tentative deal between President Trump and Chairman Kim was close to being finalized and that it would represent a “huge win” for Kim. According to the report, the tentative deal was to include the following items: first, both countries would sign a peace declaration to symbolically end the Korean War; second, North Korea would agree to return more remains of U.S. troops who died during the Korean War; third, the U.S. and North Korea would establish liaison offices (in effect quasi-embassies with minimal authority) in each other's nations; and fourth, North Korea would agree to stop producing materials for nuclear bombs at its Yongbyon facility. In exchange, the U.S. would push to lift some UN sanctions on Pyongyang so as to enable it to pursue joint economic projects with South Korea. It was also reported that the deal would possibly include some other nuclear facilities.⁶

While “wishful thinking,” in one way or another, contributed to creating a burden of over-expectation of success at the Hanoi summit, what exactly happened in the lead-up and during the Hanoi summit is still subject to speculation. Nevertheless, it is still possible

to make some evaluations of the summit and draw some lessons for future denuclearization negotiations with North Korea.

What Did We Learn?

First, the Hanoi summit made clear, at least, what the U.S. and North Korea demands in terms of denuclearization and sanctions are. Furthermore, leaving a summit empty-handed does not necessarily mean that the negotiations have totally collapsed. Washington made it clear that FFVD is the undeniable goal in dealing with North Korea. Pyongyang was also specific in its demands for sanctions relief in exchange for giving up the Yongbyon nuclear complex. Hence, the key challenge for future dialogue between the U.S. and North Korea will be how to narrow the gap in denuclearization concepts (and the potential trade-offs) between Pyongyang and Washington.

Second, in the aftermath of the failed summit, it emerged just how serious the lack of vertical coordination within both the U.S. and North Korean governments is. Before the Hanoi summit, there were many working-level contacts between the two sides. Despite such efforts, it is evident that the influence of Secretary of State Pompeo, Stephen Biegun, as well as their counterparts in Pyongyang, on their respective leaders is limited. Therefore, if a third U.S.-DPRK summit is to achieve any success, more thorough working-level preparations with sufficient mandate are a must, not a choice.

In the end, the gap in the positions between the two sides turned out to be insurmountable. Interestingly, despite the apparent failure of the summit, both the U.S. and North Korea have largely maintained an amicable stance with the two leaders agreeing to continue productive dialogues. Neither harsh re-primations have followed nor a sudden escalation of military tensions observed. This gives hope that, if the lessons above are acted upon, diplomacy may still have a chance to succeed. However, as the failed past track record of denuclearization negotiations proves, this cannot be taken for granted.

Precursor of an Unhappy Ending? A Brief History of Denuclearization Negotiations

The origins of North Korea's nuclear program can be traced as far back as the 1950s, but began in earnest in 1989 with the end of the Cold War and the subsequent collapse of the Soviet Union.⁷ As such, North Korea has a long history of nuclear development.

North Korea possesses uranium mines with an estimated four million tons of exploitable high-quality uranium ore. Information on the state and quality of these mines is lacking, but it is estimated that the ore contains approximately 0.8 percent extractable uranium. In the mid-1960s, under a cooperation agreement concluded between the USSR and the DPRK, a nuclear research center was constructed near the small town of Yongbyon. In 1965, a Soviet IRT-2M research reactor was assembled for this center and specialists trained from students who had studied in the Soviet Union. From 1965 through 1973 fuel (fuel elements) enriched to 10 percent was supplied to the DPRK for this reactor.⁸

North Korea's relatively modern nuclear weapons program dates back to the 1980s. During this decade, focusing on the practical uses of nuclear energy and the completion of a nuclear weapons development system, North Korea began to operate facilities for uranium fabrication and conversion. It began construction of a 200 MWe nuclear reactor and nuclear reprocessing facilities in Taechon and Yongbyon, respectively, and conducted high-explosive detonation tests. In 1985 U.S. officials announced for the first time that they had intelligence data proving that a secret nuclear reactor was being built 90 km north of Pyongyang. The installation at Yongbyon had already been known for eight years from official IAEA reports. In 1985, under international pressure, Pyongyang acceded to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). However, the DPRK refused to sign a safeguards agreement with the IAEA, an obligation it had as a party to the NPT.⁹

The early 1990s witnessed escalating concern among the international community regarding North Korea's pursuit of nuclear weapons. It is assessed that North Korea has one or possibly two weapons using plutonium

it produced prior to 1992. In 1994, Pyongyang halted production of additional plutonium under the terms of the U.S.-DPRK Agreed Framework. The U.S. assessed, however, that despite the freeze at Yongbyon the North continued its nuclear weapons program. With the abandonment of the Agreed Framework, the U.S. Central Intelligence Agency conjectured that Pyongyang substantially resumed the production of plutonium.

In the early 2000s, the United States became suspicious that North Korea was working on uranium enrichment. While not obtaining clear evidence, the CIA assessed that North Korea embarked on an effort to develop a centrifuge-based uranium enrichment program around 2000; in 2001, North Korea began importing centrifuge-related materials in large quantities. It also obtained equipment suitable for use in uranium feed and withdrawal systems. Concerned with such trends, the U.S. intelligence community

continued to monitor and assess the North's nuclear weapons efforts which, given the North's closed society and the obvious covert nature of the program, remained a difficult intelligence collection target.¹⁰

Since the second nuclear crisis began in 2002, the international community led by the U.S. engaged in intense nuclear diplomacy to solve the crisis peacefully. The Six-Party Talks, which started in 2003, functioned as a particularly useful venue to discuss the nuclear issue until it ended in December 2008. Through the Six-Party Talks, the U.S. and North Korea reached several meaningful agreements even though most of them were breached by North Korea. The short-lived and unimplemented "Leap Day deal" was the last significant diplomatic effort by both sides until the most recent round of negotiations starting last year. Table 2 shows the bumpy history of negotiations with North Korea.

Table 2. Timeline of Events

Year	Promises	Key Contents
1985	Nuclear Non-proliferation Treaty	NK joined NPT under pressure from Moscow
1992	NK-SK Joint Declaration	Pledged not to "test, manufacture, produce, receive, possess, store, deploy or use nuclear weapons"
1992	IAEA Deal	NK signed the IAEA's safeguards
1993	NPT withdrawal	NK declared its withdrawal from the NPT
1994	Geneva Agreed Framework	Froze Yongbyon reactor in exchange for two light water reactors and heavy fuel oil
2002	2 nd Nuclear crisis began	U.S. claimed to find evidence of uranium enrichment
2005	Six-Party Statement (Sept. 19)	Pledged "verifiable denuclearization of the Korean peninsula in a peaceful manner"
2006	1st Nuclear test	NK conducted its first nuclear test
2007	Six-Party agreement	Feb. 13, Oct. 3 agreements - shut down, seal, and disable the Yongbyon nuclear reactor
2009	2nd Nuclear test	NK conducted its 2nd nuclear test
2012	Leap Day Deal (Feb. 29)	Food aid, moratorium on uranium enrichment and missile testing, and a return of IAEA inspectors to Yongbyon
2013	3rd Nuclear test	Further 4th (Jan. 2016), 5th (Sept. 2016), and 6th tests (2017)
2018	N-S summit, U.S.-NK summit	Pledged "complete denuclearization of the Korean peninsula"

* Note: Blue lines represent agreements, red lines represent breach of those agreements.

Despite various sources of information and assessments on North Korea’s nuclear capabilities, controversies remain over the exact status of its nuclear weapons program even today. Given this troubled history, what can we expect from future diplomatic negotiations with North Korea? Should we expect, and be ready for, another setback following the Hanoi summit?

What Kind of Deal Should We Pursue?

Before the Hanoi summit, there was intense speculation about the range of possible deals with North Korea. In essence, however, any prospective deal between the U.S. and North Korea consists of trading “complete denuclearization” for “regime security guarantees.” Along the spectrum of many possible options, we can differentiate three broad types of deal with North Korea.

First, a “big deal” refers to North Korea’s complete and extensive denuclearization ranging from nuclear weapons and ballistic missiles to biological and chemical weapons. In return, North Korea will be rewarded with the lifting of sanctions and, if possible, ending hostilities between the two nations once and for all. These “rewards,” however, are conditional on North Korea’s completion of denuclearization. Such a deal is currently favored by the U.S.

Second, a “small deal” is a less ambitious exchange of North Korea’s partial denuclearization

in return for a partial reward through a phased, incremental approach. Such a small deal is similar to the action-for-action, simultaneous approach that Pyongyang and Beijing have long favored.

Third, a “bad deal” would resemble more the Singapore declaration and include only a very vague and ambiguous denuclearization pledge without a concrete roadmap or visible measures toward that direction.

These three types of deal and their potential contents are summarized in the table below.

Among these options, what kind of deal should we pursue in the future? Should we stick to the “all or nothing” approach as the Trump administration appears to favor? Or should we turn to a more realistic, phased approach to accommodate North Korea’s security concerns more in line with the “small deal”?

A big deal would be the ideal way to solve the North Korean nuclear issue but hard to achieve in practice. A small deal is relatively more likely to succeed but carries the risk of non-compliance on the part of North Korea, as its track record well illustrates. A bad deal should not be an option and must be avoided at all costs. Reasonably it can be argued that even a small deal would be better than a no deal. A no deal, in turn, would be better than a bad deal.

Table 3. Big Deal, Small Deal, and Bad Deal

	Denuclearization Steps	Corresponding Actions
Big Deal	<ul style="list-style-type: none"> Complete, Verifiable and Irreversible Denuclearization Full roadmap toward CVID—including time table and procedures 	<ul style="list-style-type: none"> Ending U.S.-DPRK hostilities and establish normal diplomatic relations Complete lifting of all sanctions
Small Deal	<ul style="list-style-type: none"> Remove ICBMs Freeze nuclear program, partial roadmap for complete denuclearization 	<ul style="list-style-type: none"> Declaration to end the Korean War Partial lifting of sanctions – e.g., resume Kaesong Industrial Complex and Mt. Kumgang
Bad Deal	<ul style="list-style-type: none"> Freeze nuclear program No detailed roadmap for denuclearization and verification 	<ul style="list-style-type: none"> Weakening ROK-U.S. defense posture, including refraining from further holding of joint military exercises Too many rewards for symbolic denuclearization steps Acknowledging North Korea as a de facto nuclear weapons state

Out of these options, arguably the mostly likely solution for the future would resemble a “comprehensive agreement” with “step-by-step implementation.” The agreement should contain all the elements of the denuclearization process, ranging from basic definitions of the terms to specifying an actual method to dismantle the whole range of North Korea’s nuclear capabilities, in as thorough a way as possible.

If it is to be believed, the North Koreans have visualized a straightforward three-stage process for their own denuclearization consisting of freezing their nuclear program, disabling key facilities, and finally dismantling not only those facilities but their nuclear weapons as well.¹¹

In parallel to the denuclearization process, it will be necessary to consider how to fully establish peace on the Korean Peninsula on the one hand, and between the United States and North Korea on the other. Unless North Korea normalizes its relationship with major stakeholder nations, peace on the Korean Peninsula can be, at best, a short-lived, temporary one. Therefore, an essential part of the deal to denuclearize North Korea should also include reconciling North Korea’s external relations with key countries.

Between the two Koreas, South Korean President Moon Jae-in is already taking an active approach to promote peace on the Korean Peninsula. Through three rounds of summit meetings with Chairman Kim, Moon has proved himself an effective facilitator of the dialogue process with North Korea.

Between the U.S. and North Korea, it is necessary to carefully think about what North Korea has demanded in return for giving up its nuclear weapons. Key to denuclearization for North Korea is that the United States end its “hostile policy.” Ending a hostile policy would entail stopping political, security, and economic confrontation in return for giving up nuclear weapons. The political dimension means U.S. recognition of North Korea as a sovereign state through establishing diplomatic relations between the two countries. The security element would involve ending the state of war that has existed on the Korean peninsula since the 1950s by replacing the temporary armistice agreement with a permanent peace treaty. Finally, the economic part would consist of lifting trade restrictions and sanctions imposed on North Korea since the Korean War.

The above elements should be implemented according to a phased, action-for-action approach. In each phase, the two sides would take simultaneous steps leading to the final outcome: the end of hostilities and denuclearization.

Verification: A Thorny Issue

Essential to the success of any approach is inspection and verification of the full spectrum of North Korea’s nuclear capabilities and facilities. Through many lessons learned in past negotiations, it is well understood that verification is a very complicated and time-consuming issue and yet an essential part of the denuclearization process.

According to the Nuclear Threat Initiative’s definition, verification refers to a set of national and cooperative activities, tools, procedures, analytical processes, and fundamentally, judgments about what is happening with regard to specific activities defined in an agreement. Verification consists of the iterative and deliberative processes of gathering, analyzing and assessing information, to enable a determination of whether a state party is in compliance with the provisions of an international treaty or agreement.¹²

As such, verification measures include on-site inspections, visits, and ongoing monitoring and evaluation. There can, however, be no verification without a declaration. Hence, a complete and correct declaration of its nuclear facilities in the form of a report is the first litmus test of whether North Korea is indeed willing to denuclearize. There must also be a clear sense of when the verification process starts and ends, and it should be implemented in parallel with dismantlement activity.

Inspecting and verifying North Korea’s nuclear program will be a huge challenge for the international community. Supposing that North Korea passes the first hurdle of providing a declaration, verification should entail at least three components. First, the Pu (Plutonium) program, which includes uranium mining, uranium refinement, uranium conversion, fuel fabrication, reactor operation, and reprocessing; second, the HEU program, which includes UF₆ production, uranium enrichment, reconversion, and metalization; and third, the weapons program, which consists of forensic analysis of nuclear tests, weap-

ons production and storage, and delivery systems. Furthermore, the actual physical dismantlement of all of North Korea's nuclear-related facilities scattered over its territory would be a lengthy process. Nuclear experts conjecture that it will take around five years or so for freezing and preparing for dismantlement. Another eight to ten years will be necessary for decontamination, demolition and dismantlement. Additionally, two to five years will be necessary for waste disposal and environmental recovery.¹³ In the case of personnel involved in North Korea's nuclear weapons program, they must be converted to the non-military, civilian sector. Supporting personnel (estimated to be around 2,000 people) can be re-educated for the civil nuclear sector and relocated to industry, research institutes, and educational institutions. Key scientists (around 200 people) directly involved in weapons production can be absorbed into a new International Science and Technology Center (ISTC), benchmarking the ISTC established for denuclearizing former Soviet republics.¹⁴

Because of the extremely limited information about the whole gamut of North Korea's nuclear capabilities, the process may have to start from scratch. Verification is, moreover, far beyond the capability of any one nation or international organization. That is why a very extensive international collaboration is essential for any successful denuclearization of North Korea.

Conclusion: Does Diplomacy Still Have a Chance?

North Korea under the leadership of Kim Jong-un has profoundly altered the balance of power on the Korean peninsula, in large part because of nuclear weapons. A nuclear-armed North Korea poses an entirely different threat not only to South Korea but also to Northeast Asia as a whole.¹⁵ Hence North Korea must be denuclearized for the peace not only of the Korean peninsula but also the whole international community. North Korean denuclearization must be achieved peacefully. War, or any kind of military actions that might entail a catastrophic devastation of the Korean peninsula, is not an option. The only possible and acceptable method is through diplomacy. Hence, diplomacy still deserves a chance.

Notwithstanding, the failure to reach a deal at Ha-

noi has arguably caused serious collateral damage to South Korea's policy to dramatically expand economic cooperation with North Korea. Indeed, most South Korean media and government officials had expected a sort of "small deal" in Hanoi that would have enabled such cooperation to proceed. Now the Moon government fears the political repercussions of Hanoi at home. At a time of protracted economic hardship in South Korea, Moon has bet on the peace initiative to bring him political gains. But without a diplomatic breakthrough, and with a general election scheduled for April 2020, Moon could face a troubling and uncertain future. Despite recent setbacks, Seoul remains optimistic about the peace process because the negotiation track is still open, and it believes that Pyongyang and Washington can be brought back to the table.¹⁶

For South Korea, it is important to be clearly aware that denuclearization, improvement of inter-Korean relations, and South Korea's diplomacy with neighboring great powers are closely connected. South Korea's strategy toward denuclearization and regional power politics are not in a zero-sum relationship, and both diplomatic horizons and diplomatic means must be enhanced. As a facilitator, South Korea should strengthen its diplomacy towards neighboring countries while also building the basis of trust with North Korea, continuing multilateral dialogues to ensure the security of the North Korean regime.¹⁷

In the near future, we should be concerned about the different speed with which progress is being made in U.S.-DPRK and ROK-DPRK bilateral talks. The future ahead is like a complex three-dimensional game. First, in terms of the inter-Korean dimension, genuine rapprochement and improvement of the relationship should be discussed; second, regarding the U.S.-North Korea dimension, both leaders should come up with a detailed plan to exchange CVID for security guarantees; third, and finally, in regard to the North Korea-international community dimension, lifting sanctions and a verification/monitoring mechanism must be discussed. Progress on these three dimensions should proceed in tandem in a sequenced manner.

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