



## Report of the APLN NEA Regional Meeting at Seoul

### Summary

The APLN Northeast Asia Regional Meeting was held on March 21<sup>st</sup>-22<sup>nd</sup>, 2018, in Seoul, Republic of Korea. Involving a total of 20 regional experts and professionals, the meeting dealt with recent developments in the North Korean nuclear issue and sought to identify practical diplomatic measures that could carry the momentum through to establishing lasting peace in the Korean peninsula. Specific topics ranged from lessons from previous diplomatic efforts, technical and cause-and-effect analysis of North Korea's nuclear capability and suggestions of tangible solutions.

This report covers the following aspects of the meeting:

1. Introduction and Opening Considerations
  - Participation, Organization of the Meeting, Opening Remarks.
2. Lessons Learned from Previous Efforts
  - Reflections of the past
  - North Korea as a source concern for nuclear proliferation
  - Navigating the language of North Korean diplomacy
  - Lessons learned from the Iran Nuclear Deal
  - Differences then and now.
3. Understanding the Reality of the North Korea Nuclear Quagmire
  - Analysis of recent developments
  - Fuel cycle and weaponization in North Korea
  - How North Korea's missile and delivery capability affects negotiations.
4. How to Manage the North Korean Nuclear Problem
  - Scenarios and possibilities
  - Recommendations and concerns on facilitating successful denuclearization.

## Content



## 1. Introductions and Opening Considerations

### *Participation*

A total of 20 regional experts and professionals participated in the meeting. APLN members included:

ROK: Myungbok Bae, Yungwoo Chun, Yong-Sup Han, Yongsoo Hwang, Bong-geun Jun, Sung-hwan Kim, Hongkoo Lee and Chung-in Moon

Mongolia: Nyamosor Tuya

Japan: Nobuyasu Abe and Tatsujiro Suzuki

China: Chen Dongxiao, Fan Jishe, Shen Dingli and Zhao Tong; and

Australia: Ramesh Thakur, Peter Hayes and John Carlson.

Guest observers included Isabelle Williams, Senior Advisor of the Global Nuclear Policy Program in the Nuclear Threat Initiative, and Jong Kwon Youn, a member of the Panel of Experts established pursuant to Resolution 1874 in the UN Security Council. The APLN Secretariat (Hyungtaek Hong and Jamie Cho) facilitated the meeting. See full details of participants at **Attachment 1**.

### *Organization of the Meeting*

The meeting followed the Program and Agenda at **Attachment 1**.

### *Opening Remarks*

**Hongkoo Lee**, former Prime Minister of the Republic of Korea, highlighted the positive swing in developments in the Korean Peninsula this year as opposed to the dark clouds of war that had gathered even until the end of the previous year. He accredited the Pyeongchang Winter Olympics and the efforts of concerned governments to lead up to the two planned Summits – between North Korea and South Korea, and hopefully between North Korea and the US. He emphasized that the nuclear issue in North Korea was not limited to the regime itself, but had to do with nuclear arms proliferation in Northeast Asia. In failing to resolve this issue, he stated, it would also mean the end of the NPT regime in the only region in the world where living generations still remember suffering from nuclear bomb explosions.

Therein lay the importance of APLN in uniting a common effort to concentrate all energy to the very challenging task. He expressed his hope that Kim Jong-Un would understand the difficulty of the task and the restraints which constrained neighboring countries from moving freely. In concluding, he hoped that the meeting would produce good guidelines and recommendations for all key regional powers, including the ROK government.

## 2. Lessons Learned from Previous Efforts

## *Reflections of the past*

Past momentum, stalemates and regressions were mentioned:

- Geneva Agreed Framework in 1994
- Six Party-Talks, adoption of September Joint Statement in 2005
- North Korea's missile launch test in 2006
- February 13 Agreement of 2007
- North Korea's missile launch test
- President Obama's nuclear weapons free world speech in Prague in 2009
- Leap Day Agreement with Kim Jong-Un and President Obama's Special Representative for North Korean Affairs Glyn Davies in 2012
- North Korea test launch rocket propelled satellite in 2012
- UN and US sanctions for 'maximum pressure'
- Pyeongchang Olympics in 2018
- ROK-US joint military exercise: delayed on ROK's request and stated willingness of North Korea to tolerate US/ROK exercises.

Observations were made that North Korea was not solely at fault for past failures in diplomacy.

- Agreed Framework: ROK government was supposed to deliver two light water reactors and the US government was supposed to deliver 50,000 tons of oil to North Korea
  - o the Bush administration began stopping supply of heavy oil and relations turned sour
  - o Light water reactors were not built on schedule.

## *North Korea as a source concern for nuclear proliferation*

- North Korea is not a member of international regime for nonproliferation.
- There have been reports that North Korea is a source of technologies for nuclear programs, weapons of mass destruction and for missiles
  - o Concentrated in parts of the Middle East and South Asia such as Egypt, Libya, Syria, Pakistan, Yemen, and most recently Myanmar.
- With **Syria**, North Korea maintained small scale military technology cooperation since 1960s
  - o North Korean engineers assisted Syrian military modernization efforts
  - o Helped develop its nuclear program – leading to the Israeli attack in 2007 on a nuclear reactor building at Deir Al-Zour
  - o North Korea supplied ballistic missiles technologies and more recently at least 40 shipments of chemical weapons
  - o North Korea is suspected to have earned roughly 200 million dollars in 2017 from this endeavor.
- With **Iran**, North Korea has developed a close working relationship on many ballistic missile programs
  - o Suspected items regarding ballistic missiles have been transferred between North Korea and Iran

- Iran tested ballistic missiles based on North Korean technology, in July 2016 and January 2017
- In the early 2000s, Israeli Intelligence reported that North Korea and Iran had set up a missile and nuclear technology deal concentrating on centrifuge technology
- North Korea provided Iran with engines for Nodong missiles in exchange for Iran's enrichment technology
- The most significant development of this working relationship is the civilian scientific technology agreement in September 2012, a formalized technological operation in missile and nuclear technology between North Korea and Iran.

### *Navigating the language of North Korean diplomacy*

Subjective interpretations and willing obfuscations were common in previous agreements made between North Korea and other parties.

- September 19<sup>th</sup> Joint Statement of 2005
- North Korea interpreted a recognition of its right to build light water reactors despite the absence of a specific provision recognizing that right in the agreement
  - The US interpreted the agreement as only conveying a notional in-principle recognition of the right provided the successful completion of denuclearization and with North Korea's return to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT).
- Leap Day deal of 2012
  - North Korea agreed on a moratorium on missile tests and uranium enrichment, in return for the provision of 200,000 tons of heavy fuel oil from the United States
  - Days after the agreement, North Korea launched the Kwangmyongsong-3 satellite or KMS-3, claiming the deal only applied to long-range missiles, **not satellites for the peaceful use of space**
  - North Korean negotiators had verbally acknowledged that the launch of satellites would be a violation of the Leap Day deal
  - But American negotiators failed to put into print specific language on the banning of all launches using ballistic missile technology, clearly including satellites
  - Subsequently, the North's negotiators were allowed to report to their superiors on the exclusion of satellite launches from the agreement.

### *Lessons learned from the Iran Nuclear Deal*

- Refrain from talk of regime change; and prepare for lengthy and complex negotiations
  - In contrast to President George W. Bush with his provocative axis of evil and talk of pre-emptive strikes in early 2002, President Obama avoided doing so and did not involve the US in the Iranian Green Revolution in 2009.

- The political capital invested by top leaders matters had been important
  - o Top-level communication between Obama and President Rouhani had been critical.
- Major players needed to be ready for give and take
  - o Though there is a US proclivity for attaching preconditions, e.g. talks for talks, these approaches are ineffective and delays only exacerbate difficulties
  - o Initially, Iran had a rudimentary enrichment program and few centrifuges; but with the passage of time while the deal was being negotiated, Iran had built up its enrichment capacity, thereby strengthening its negotiating position.
- Be well prepared for serious negotiations.
  - o Assemble an experienced and qualified team including the low to mid-level as well
  - o Wendy Sherman, US lead negotiator for the Iran deal, prepared a detailed and technical 100-page agreement prior to formal negotiations
  - o A concrete roadmap is important.
- Get your carrots and sticks ready
  - o It was important for the negotiators to be able to offer options and choices.
- All parties concerned must come to the table
  - o The P5+1 multilateral talks ensured sufficient pressure as a collective group
  - o However, one must address the individual priorities, stakes, and positions of all parties at an early stage to establish unity at the table
  - o Otherwise internal differences amongst allies will frustrate possible progress.
- Seize the opportunity to make progress
  - o Obama took the initial step of approaching Iran with the election of Rouhani to send a message offering diplomacy.
- A flawed deal is better than none
  - o Though the Agreed Framework eventually collapsed, it achieved an eight-year freeze delaying North Korean nuclearization and preventing the amassing of a larger and better developed nuclear arsenal.

Future questions regarding the Iran deal included:

- Does China expect President Trump to refuse to certify the Iran deal - and what consequences may result?
- China invested a fair degree of capital for the Iran deal. How does this affect the possibility of China's cooperation?
- Iran remains subject to bellicose rhetoric by Washington, yet the DPRK has secured a summit meeting. What lessons will Iran draw from this? North Korea's securing of a summit spurs domestic Iranian hardline criticism against Rouhani and in favor of negotiating from a stronger position - namely backed by a nuclear bomb.
- Discordant narrative by the United States vis-à-vis the other participants in the P5+1 warrants concern by Iran as to the commitment of the signatories to full implementation of the deal.

### *Differences then and now*

Participants discussed present day differences in the negotiating environment in comparison with that at the time of the Agreed Framework:

- The Agreed Framework was a product of a unilateral move by the United States and the DPRK, **cutting out the ROK**, whereas the groundwork for the Inter-Korean and US-DPRK summits was at the initiative of the South Korean government
  - o By excluding South Korea, the United States promoted its own agenda at the expense of South Korea's national interest – the Kim Young-sam administration at the time had requested South-North dialogue as a precondition.
- The Agreed Framework was negotiated bottom-up at the assistant secretary level so negotiators **lacked plenipotentiary authority** – thus negotiations were impeded by the obstacle of negotiators needing constant confirmation with their governments
  - o But the upcoming two summits will be at the highest level - thereby facilitating meaningful dialogue.
- In 1993, North Korea demanded the suspension of the joint-military US-ROK Team Spirit military exercise, which was accepted in turn with the condition of verification/inspection by the International Atomic Energy Agency (IAEA)
  - o However, the South strongly opposed that deal
  - o But the Kim Jong Un regime today explicitly acknowledges the exercise(s) as an annual feature.
- Experienced diplomatic officers of the US, those familiar with North Korea, were utilized and the Clinton administration had institutional support from the State Department
  - o But President Trump lacks such institutional support - with key positions in the State Department dealing with arms control and international security still being vacant
  - o Even the US ambassador to South Korea remains vacant.

Thus, it is important that the ROK reclaim a central role in future negotiations, unlike the past which was characterized by:

- Unilateral dissolution of the Agreed Framework, closing of the KEDO office by the Bush administration, all without consultation with both presidents Kim Dae-jung and subsequently Roh Moo-hyun.
- Outright lying of a nonexistent North Korean highly-enriched uranium program, **three years before** North Korean efforts began in 2010.
- The abrogation of the Agreed Framework due to the ideological opposition of Bush and Bolton had led to the current situation.
- Nevertheless, negotiators must pragmatically consider the DPRK's propensity for hedging and or cheating on the implementation of any denuclearization deal.

### **3. Understanding the Reality of the North Korean Nuclear Quagmire**

## *Analysis of recent developments*

Participants briefly outlined the two biggest goals the negotiators will be pursuing:

- Trump will want irreversible and verifiable dismantling of nuclear weapons.
- North Korea would want withdrawal of US forces in ROK, diplomatic recognition as a normal state and a comprehensive peace regime on the Korean Peninsula.

There was speculation on the reasons for North Korea apparently changing its mind on negotiations:

- Previous sanctions targeted WMD programs, but recent sanctions have aimed at the North Korean economy
  - o This had harmed North Korea's policy of 'byungjin' - which is a strategy of parallel development of both nuclear weapons and the domestic economy.
- Apparent shortcomings of North Korea's byungjin line
  - o North Korea's economy and security were suffering badly, hence the leadership coming out to buy time
  - o North Korea's logic was that it would develop nuclear weapons to strengthen security and save money on conventional weaponry
  - o But it actually led to an unstable economy and deteriorating conventional weapons due to lack of money
  - o Kim Jong Un may be considering a strategy change from the byungjin line to Chinese or Vietnamese-styled reform.
- Sanctions were implemented with the threat of further escalating sanctions and military action in the event of non-compliance
  - o The US was seriously contemplating military action.
- China was not tolerant of nuclear weapons in North Korea.
- North Korea was able to approach ROK with self-confidence after declaring its possession of completed nuclear weapons, which provides DPRK with credible minimal deterrence.
- North Korea's usual strategy of playing off China and Russia against the US, Japan and ROK was no longer working
  - o North Korea experienced sense of isolation.
- ROK has been accommodating North Korea's demands and succeeded in conveying the sincerity and authenticity of ROK's intention
  - o Evidenced by North Korea's treatment of ROK special envoys and Kim Jong Un's New Year's Speech after the visit to Seoul of Kim Yo Jong, the sister of North Korea's leader Kim Jong Un.

Participants examined the effects of **sanctions** on North Korean economy

- Experts observed that the signs of a booming economy during the early half of 2017 had given way to a rapid drying out of foreign currency reserves this year.
- While some believe that impact would be devastating within 3 years, others believe North Korea is resilient since it has already gone through an enormous adaptation period.
- Energy sanctions had not been crippling because North Korea had

### implemented **offsetting substitutions**

- Electric power sector is almost supplied entirely by hydropower and coal
  - It had only one oil-fired generator in Hamhung which has not operated for years.
- Domestic coal supply has increased as coal export to China has been cut off
  - While this did cut off foreign reserves, the effect did not translate to limitations in energy use
  - There is small demand in heavy industries anyway due to prior collapse of those industries
  - So there is increased coal supply in the service sector, the main source of economic growth, for space heating and cooking
  - For food production, coal can be gasified to produce fertilizer
- Due to cutoff of refined oil products, biomass use such as gasified wood fuel, charcoal and agricultural waste will become even more widespread
- Military will also not be much affected
  - Possesses very large reserve of fuel for military use
  - Did use a substantial fraction of routine pre-sanction oil for aviation gas, petroleum and diesel, but overall it only used 7~10% of ordinary energy use in North Korea
  - Most of North Korean military energy use is on base needs; and as the operating tempo is so low already, the impact on operational readiness is very low
- Therefore, energy sanctions do not seem to have been imposed effectively and North Korea could continue to survive the sanctions for at least another 5~10 years – denying the US any real coercive leverage over its nuclear weapons or even military programs.

### *Fuel Cycle and Weaponization in North Korea*

North Korea has huge depth in **human capacity** to support a nuclear fuel cycle:

- Good and comprehensive education system
  - Kim Il-Sung University, Kim Chaek University of Technology, and other universities in Yongbyon area
- Abundant number of experts
  - Believed to have 200-300 key nuclear and missile scientists with comprehensive knowledge about nuclear bombs and weapons system
  - Supported by 8,000-15,000 engineers
- Problems arising from displacement of massive professional human resources should be addressed
  - Need a detailed strategy on re-training and redirection of all weapons-related nuclear experts to the production of energy
  - Doing this successfully is the key to stabilize peaceful use of nuclear energy in North Korea.

As the main site of nuclear development in North Korea, there are several items to

consider regarding the **Yongbyon facility** in negotiations:

- Depending on the political situation, the radiochemical laboratory in Yongbyon facility has the capability of producing weapons grade plutonium
- Should note operation status of facilities in Yongbyon area
  - o The facility consists of an atomic research complex, radiochemistry laboratory and enrichment facilities
  - o Enrichment capacity has doubled
    - Generation 2 type centrifuges are valuable for producing weapon grade enriched uranium
  - o The reprocessing complex is also operation-ready
  - o Old-fashioned railway system across Yongbyon area to transfer materials.
- Can track operation status of Yongbyon facilities
  - o Conventional thermal images from satellites to sense heat from operation
  - o Railroad movement can be traced to see how North Korea transfers spent fuel
  - o This is important due to Possible Military Dimensions (PMD) across North Korea.
- Use of relatively high-grade enriched uranium for fuel
  - o 30% is used to operate research reactor
  - o Negotiations should strive to replace fuel with lower enriched uranium.
- Research complex has two 5 megawatt reactors and a special container for dry storage of spent nuclear fuel
  - o Research reactor may be needed for production of isotopes for medical use
  - o North Korea lacks technology for safe storage so it can only re-process the spent fuel
    - So even without nuclear weapons development, it would still conduct reprocessing
    - Negotiations should include the introduction of a newly designed storage facility to eliminate the need for reprocessing
    - This item was already included in the Agreed Framework, when the US promised to deliver special containers.
- The 100 MWth/30 MWe Experimental Light Water Reactor at Yongbyon Nuclear Scientific Research Center is nearly ready for operation
  - o This implies intention to use nuclear energy
  - o Negotiations should consider how to alternatively supply energy to North Korea with a mix of energy sources such as renewable energy and PNG from Russia.

North Korea's claims about its nuclear weapons technology should be verified:

- Claims and speculation of North Korean nuclear weapon development gradually advanced from a plutonium bomb, to a uranium bomb, then a thermonuclear device and ultimately in 2017 to a full-fledged hydrogen bomb
  - o Pictures of the claimed thermonuclear device of January 2016 suggest it would be too heavy to attach to an ICBM
  - o And no clear evidence to support claim for uranium bomb development.
- Bomb tests have been concentrated in Punggye-ri which is a stable geological formation that can endure a blast of up to 300 kilotons
  - o The size of the explosion can be derived from earthquake analysis

- Routine activities suggest North Korea is trying to excavate more tunnels for a next phase of bomb tests.

North Korean practice in missile development has an element of **technological opportunism**:

- North Korea seems to try a wide range of technologies, and if it fails, quickly abandons the technology and invests in other areas
  - It happened to make rapid progress in developing solid fuel for short range ballistic missile (SRBM), and made the most of it
  - There are indicators that North Korea is still working on other missile capabilities such as submarine launch ballistic missiles (SLBM).
- Launching systems include missiles from fixed ground bases, mobile TEL system and submarine.
- North Korea is good at combining twin and triple engines
  - Nodong missile: traditional Soviet developed Scud engine imported from Egypt in 1980 and re-engineered for DPRK use.
  - Hwasong missile: two engines which combined produce 80 tons of thrust, enough to reach all points of the US mainland.
- They know how to harness technology in the market.
  - While they do not have state-of-the-art technology, they take and develop old Soviet Union and US technology for ICBMs and space programs to combine them into a working ICBM technology.
- They store and launch missiles in a way that others do not expect
  - Sometimes, ordinary civilian tunnels are converted to store missiles.
- They throw up a smokescreen to hide their real capability
  - Conventional factories are used to make missiles, sometimes on purpose to show off their capabilities.

### *How North Korea's missile and delivery capability affects negotiations*

North Korea has a **two stage strategy**:

- Stage 1: every resource is utilized to achieve basic deterrent regardless of international consequences such as economic sanctions.
- Stage 2: consequences created in Stage 1 are dealt with, and the international community, including the US, is convinced to accept North Korea's nuclear reality
  - If North Korea continued to develop a more advanced ICBM, the international community would be more resistant to accepting the current capabilities.

It is possible that North Korea already has a **basic strategic nuclear deterrent capability** able to deliver nuclear warheads to the US mainland:

- This could explain North Korea's recent major diplomatic overture towards the US and South Korea
  - North Korea's change of policy could be part of a strategic plan, not a tactical change.
- What does North Korea's ICBM capability mean for the US?

- It is uncertain whether the ICBM re-entry vehicle functioned properly and there are also questions about whether the guidance systems have worked in previous tests
- However, North Korea does not need a 100% reliable ICBM for possessing rudimentary deterrent capability
- While the US tends to evaluate North Korea's threat depending on whether North Korea has fully mastered reliable ICBM capability, it cannot afford to simply assume the re-entry vehicle will not work if the missile is fired at the US homeland.

The US and North Korea should both take advantage of the **current gap in their technological capabilities** to meet in the middle:

- The US has a higher technological standard than North Korea regarding ICBM
  - Even if North Korea believes itself to have succeeded in developing basic deterrent capacity, the US will not put much stock in a system with such a low reliability.
- The US can still seek to freeze North Korea's capability and claim it has successfully stopped North Korea from going over the threshold of becoming a 'credible' threat to the US.
- For North Korea, even if it stops development now, it could claim that it has successfully developed basic deterrent capacity and met its original goals.
- However, if this diplomatic opportunity is squandered, North Korea may continue with more tests and demonstrate a more reliable re-entry technology
  - That would really force the US to view North Korea as a credible threat and erase the possibility of those two achieving a compromise meeting in the middle.

How should negotiating parties undertake verification when North Korea has strong incentive to develop more advanced capabilities **both for security and scientific reasons?**

- North Korea would want to shift towards solid fuel missiles and SLBM program
  - For penetrating US missile defense
  - To quickly launch satellites into space in case its satellites are attacked by enemies.
- Actually, North Korea's SLBM development may be spurred by technological reasons rather than strategic ones
  - It does not make much military sense for North Korea to attach too much significance to an SLBM program.
- However, even if North Korea agrees to suspend missiles programs, it may still want to continue civilian programs under the cover of satellite launches and rockets
  - Negotiations should consider how North Korea can be prevented from obtaining military useable capabilities through civilian programs
  - For instance, North Korea could test the reliability of civilian rocket engines and then use the same engine for military its program.
- During negotiations, North Korea will want to keep credible deterrent by not

completely de-alerting its nuclear forces or revealing all sensitive locations in fear of pre-emptive US strike

- Negotiating parties should think about the limitations of verification measures.

## 4. How to Manage the North Korean Nuclear Problem

### *Scenarios and Possibilities*

The meeting discussed four scenarios for the future of the North Korean nuclear problem:

- North Korea has two options: nuclear armament or complete, verifiable and irreversible disarmament (CVID).
  - ROK and the US have two options: engagement and diplomatic normalization or confrontation and containment.
1. **Balance of Terror:** North Korea opts for nuclear armament, while ROK and the US chose confrontation and containment
    - This scenario will see extended deterrence and arms race, which may cumulate in North Korea being coerced by nuclear weapons, followed by military coercion or preemptive attack
    - While analysis of the status quo strongly points to this scenario, given that it seems likely North Korea will persist with its nuclear armament program, every effort should be directed to avoiding this outcome.
  2. **Forced Denuclearization:** North Korea walks the path of CVID, while ROK and the US goes for confrontation and containment
    - Possible consequences are preventive attacks and regime change or collapse
    - An extremely unlikely outcome and one that would be as dangerous as the 'balance of terror' scenario.
  3. **Accepting a nuclear North Korea:** North Korea maintains a nuclear arsenal while ROK and the US try engagement and diplomatic normalization
    - If North Korea's nuclear weapons are accepted, ROK will definitely go for nuclear armament itself, which will be followed by US forces withdrawal
    - North Korea may possess military superiority
    - This scenario is improbable as North Korea's nuclear weapons status is not likely to be recognized/accepted.
  4. **Peace Regime Building:** North Korea chooses CVID, while ROK and the US opt for engagement and diplomatic normalization
    - The Korean Peninsula may become denuclearized, North Korea-US and ROK-North Korea relations may become normalized, economic assistance might be provided, Northeast Asia may see peace and

- security cooperation
- This is the best possible solution.

Several recent developments have improved the prospects for the ROK's peace regime policy:

- An increased urgency for North Korea's denuclearization
- **Stronger US-China joint reactions** due to the latest hydrogen bomb and ICBM tests
  - The tests pose direct security threats to the US mainland
  - The tests challenge China's sole 'nuclear weapon state' status in the region, and increase chances of its involvement in a war in the Korean Peninsula with the US.
- **Trump factor** as a good opportunity
  - High-priority approach that has done away with strategic patience
  - Open to a summit with Kim Jong Un in the context of the "4 nos" policy – no hostility toward North Korea; no attack on North Korea; no regime change; and no hasty move to unification
  - US willingness to leverage trade interests with China to induce a stronger Chinese role against North Korea
  - Trump is only person in the US with no institutional memory of past dealings with North Korea, and will take his own path to make decisions he likes
  - The DPRK's Byungjin Line is under stress as the expected benefits of nuclear armament have failed to materialize
  - Security benefits have not been realized due to extended deterrence by the US and the ROK's military build-up
  - Economic effects have not been realized due to stronger economic sanctions and continued military spending.

The absence at this time of an overarching deal or roadmap makes it difficult at this stage to identify the elements of any future verification mechanisms:

- Items to be specified include verification modality, standards, actual imperatives for verification, legal frameworks and technologies, and institutional options, which will need to be connected under an overarching concept resting on principles agreed among negotiators
  - The Agreed Framework was hobbled because it was drafted by a very narrow and primarily American concept of the strategic goal – North Korea wanted to fundamentally change its relationship with the US, but the US only cared about eliminating North Korea's nuclear weapons
  - However, despite his military threats, it is clear that Trump is willing to open himself to discussion with Kim Jong Un.

Consideration was also given to verification of a freeze should that be agreed as an initial measure:

- While the simple absence of a new nuclear or missile test could be the bottom line of confirming a freeze, it would probably not be sufficient alone
  - o While North Korea may accept limits on their minimal deterrence, the US will in any event work on tracking and pre-launch destruction techniques
  - o This will in turn tempt North Korean experts to work on improving their deterrence capabilities, which involves tests, which would immediately be the end of the moratorium.

### *Recommendations and concerns on facilitating successful denuclearization*

Participants briefly discussed a general how-to of negotiations:

- Clarify the intent and understanding of Kim Jong Un on what the DPRK is looking for in terms of the elimination of “threats” and the extension of security assurances.
  - Outside broadcasts such as the Voice of America are considered a subversive activity and an act of attempted regime change
    - o US negotiators should refrain from speaking of human rights and the broadcasting of psychological war.
  - Bridge trust deficit with North Korea and other parties by the implementation of a robust verification regime, a higher standard than normal for an acceptable level of confidence.
    - o Difficulty of verification lies in North Korea’s confidence in the concealment of clandestine enrichment programs in contravention to the NPT.
  - Backload what North Korea values most or fears until the final phase of implementation to avoid loss of momentum - and thereby give space for North Korean delaying actions.
  - The US and ROK must clarify in any future agreement the eventual dismantlement of the Yongbyon nuclear facility, **not simply a freeze** as was done in the Agreed Framework.
- o An ‘action for action’ strategy involving a set of quid pro quos should be followed:
    - The initial steps of negotiations with North Korea can be implemented in accordance with the action for action principle
      - o However, while freezing their capabilities is reversible to some extent, dismantlement is not.
    - The North is suspicious of the political commitment behind a potential US-DPRK deal, and the **deal’s longevity**
      - o The failure of the Six Party Talks and the Agreed Framework lies in the asymmetry of commitments for the US and the DPRK
      - o The DPRK is unlikely to commit to a dismantlement timetable at this time.
    - Starting the process of direct engagement and working on initial measures including freezing may lead to bridging the trust deficit for future endeavors.

There were suggestions for overcoming the following main challenges in negotiations:

- Ambiguities in the meaning of words used to express any agreement

- Despite Kim Jong Un conveying his commitment to denuclearization and the suspension of nuclear and missile tests, there is ambiguity in his definitions of denuclearization and its conditions
- So any future deal must be written down in specific and deliberate language.
- Lack of pre-set timeline
  - The Agreed Framework left the timeline for verification vague
  - Thus, special inspections were not undertaken by the time the framework unraveled in 2002 with consequent uncertainty over quantities of DPRK plutonium and enriched uranium stocks.
  - A timetable for inspection and verification of the North's nuclear facilities should be set.
- Possibility of domestic revocation
  - A US executive agreement may be subject to partisan revocation, as happened with the Agreed Framework: any future arrangements could suffer the same fate
  - In fact, domestic opinion in the US to diplomatic normalization with North Korea is quite unfavorable
  - A legally binding treaty subject to approval by the legislature rather than through the executive is essential to avoid the threat of partisan revocation.

Suggestions were made for a step-by-step solution involving a **freeze** followed by **CVID**:

- **Freeze should include** the items below
  - Suspension of nuclear and missile tests
  - Recommitting to the statement of principles of 19 September 2005 between China, Japan, North Korea, Russia, South Korea, and the United States
  - Monitoring of a fissile material production freeze
  - And if North Korea really does want to show goodwill, ICBMs could be dismantled, which would appeal to Trump
  - A 4-party peace forum or summit, preferably immediately followed by North Korea-US summit and then a peace declaration
    - A peace declaration might appease North Korea's insecurity and offer confidence of peaceful coexistence in North East Asia.
  - Basic agreement between ROK and North Korea
  - Between North Korea and the US, a military dialogue could avoid possibilities of accidents and accidental wars, and lower the extremely high military tensions that increased during last year
  - Representative offices in capitals could also go far in restoring relations.
- **CVID should include** the items below
  - Reporting
  - Shutdown and disabling of nuclear facilities
  - Suspension of nuclear weapon production; and

- Monitoring.
- Consideration should be given to DPRK's reentry to the NPT. \
- With established CVID, North Korea and the US could commence diplomatic normalization and removal of sanctions.

Furthermore, a comprehensive solution to change the **North Korea-US relationship** could involve six elements:

1. Humanitarian energy and economic aid.
2. End of nuclear threats in a manner that is meaningful to North Koreans
  - Legally binding treaty or non-legally binding political agreement?
  - Should this only be in a Korea-only context, or a regional nuclear free zone?
3. Peace treaty
  - Not necessary in view of international law, but could become a transition step in normalization of relations.
4. Ease of sanctions
  - Symbolic and economically important for North Korea.
5. Peace regime
  - A simple replacement of the Armistice and its institutional apparatus, or something that provides reassurance of North Korea's regime survival?
  - Role of USFK is important – original function is one-way deterrent on behalf of ROK
6. Regional security consultation and decision-making councils
  - Nuclear weapons free zone is not just about North Korea, but without NWFZ, it seems difficult to go far with the North Korean nuclear problem
  - Therefore, regional processes should lead the way for a comprehensive security settlement which might take six to eight years of completion
  - North Korea will need at least two US political cycles to trust that commitments will be undertaken without fail.

Reducing the perception of **threat posed by the DPRK to the US** was seen as critical. With that in mind, options on the table include:

- Negotiating parties should think about how they could design a process of progressive denuclearization while concurrently managing perceptions of the ongoing North Korean threat
  - Juggling the continued pressure of sanctions while incentivizing a North Korean pivot to economic development.
- North Korea's leverage hinges on offering to end its threats against the US
  - A suspension of missile and nuclear testing will not suffice: rather the nuclear weapons and ICBMs will need to be dismantled
  - Given its light water reactor ambitions it seems unlikely that North Korea will freely give up its enrichment capacity
    - Suggestion of a 'unification light water reactor' built by ROK and run jointly with North Korea, whose grid has been refurbished to manage the increased load.
- In exchange for a deal on denuclearization the US could in turn offer:
  - Disengagement of 50km-100km from the DMZ

- Conventional forces limitation
- Complete US withdrawal.

A query was raised regarding the direction of **North Korea-China relationship** in the context of the changes in North Korea-US relationship:

- Despite North Korea's desire to normalize relations with the US, North Korea will still lean on China.
- To establish a deal with the US, North Korea will need to uphold US requirements to accept agreed high levels of verification.
- However, while North Korea wants diplomatic normalization with the US, it does not place much stock in US reliability: therefore, it would likely seek to pursue closer links with China while simultaneously pushing the US to honor its commitments.

There were suggestions that ROK government should use the **Inter-Korean Summit** to facilitate the US-North Korea Summit for three agendas.

- First, de-nuclearization
  - North Korea has said that nuclear weapons are unnecessary if the regime does not have security concerns
  - North Korea desires a de-nuclearized Korean Peninsula, meaning that ROK should also think about foregoing its US nuclear guarantees
  - However, ROK should be able to verify that North Korea really has given up nuclear weapons.
- Second, a permanent peace regime
  - ROK government's role is limited, so it should go for preliminary talks with North Korea linking the two agendas
  - It should create a package of economic incentives and disincentives for inter-Korean relations which would contribute to negotiations between North Korea and US.
- And third, the general improvement of inter-Korean relations.

Cooperation with regional powers was considered a necessary step:

- Status quo of relationships among neighboring powers
  - North Korea is not enjoying good relations with either China or Russia
  - Japan was initially actively opposed to dialogue with North Korea, but has now fortunately changed its view so long as denuclearization is the objective.
- Continuation of maximum pressure until the North takes concrete steps for denuclearization as well as close coordination between the regional powers, mainly China.
- South Korea should coordinate cooperation between the United States and North Korea as a facilitator and provide a comprehensive roadmap in advance.
- Need for communication with the regional powers at every step of the negotiation process.

While recent developments, especially the summits, should be welcomed, the potential for failure called for back-up plans:

- A **hotline** among leaders, especially North Korea and the US, to resolve differences without the involvement of mediaries with their own agendas.
- Regional dialogue to deal with detailed issues such as compliance, to restore confidence to North Korea regarding commitments.
- Any dismantlement process would be long term and should involve more than just the US to give more transparency and credibility, and in turn strengthen irreversibility.
- Even if the summits fail, the US should not revert to bellicose rhetoric and unreasonable demands for CVID at the expense of North Korea's national security requirements.

## Appendix I: Program, Agenda and Participants' List

- 09:15-09:25 **Opening Remarks** by Chung-in Moon, Co-Convenor of APLN  
**Welcoming Remarks** by Hongkoo Lee, former Prime Minister of ROK
- 09:25-09:40 Introduction of Participants & Group photo
- 09:40-10:20 **Session I**  
***Overview: How We Got Here & Where to Go***  
Summary discussion on the lessons from the previous works and the way forward to find out the step-wise options to solve the DPRK nuclear impasse  
Moderated by Myungbok Bae  
Introductory Remarks by Chung-in Moon
- 10:20-10:30 Coffee Break
- 10:30-12:30 **Session II**  
***Understanding the North Korean Nuclear Quagmire: Reality Check***  
Moderated by Nobuyasu Abe  
1) Fuel cycle – Yongsoo Hwang  
2) Weaponization – Yongsoo Hwang  
3) Missiles and delivery capability – Zhao Tong  
4) Proliferation – Tatsujiro Suzuki
- 12:30-13:30 Lunch
- 13:30-15:30 **Session III**  
***Lessons learned from Previous Cases***  
Moderated by Ramesh Thakur  
  
1) Lessons learned by the Geneva Agreed Framework – Sunghwan Kim  
2) Lessons learned by the 6 Party Talk – Yungwoo Chun  
3) Lessons learned by the Iranian case – Fan Jishe
- 15:30-15:50 Coffee Break
- 15:50-17:50 **Session IV**  
***How to manage the North Korean nuclear problem***  
Moderated by Chung-in Moon  
1) Step-wise Approaches – Shen Dingli, Bong-geun Jun  
2) Verification Mechanisms – Peter Hayes  
3) Regional cooperation and coordination – Nyamosor Tuyu, Chen Dongxiao
- 17:50-18:10 Wrapping Up & Future Plan

18:30-20:30 Dinner

## APLN members

### *Australia*

Ramesh **Thakur** (Co-Convenor of APLN / Director, Centre for Nuclear Non-Proliferation and Disarmament, Australian National University)  
Peter **Hayes** (Director, Nautilus Institute)  
John **Carlson** (Counselor to the Nuclear Threat Initiative)

### *China*

**Chen** Dongxiao (President, Shanghai Institutes for International Studies)  
**Fan** Jishe (Deputy Director of Center for Arms Control and Nonproliferation Studies, Chinese Academy of Social Sciences)  
**Shen** Dingli (Associate Dean of Institute of International Studies, Fudan University)  
**Zhao** Tong (Associate, Carnegie-Tsinghua Center for Global Policy)

### *Japan*

Nobuyasu **Abe** (Commissioner of the Japan Atomic Energy Commission)  
Tatsujiro **Suzuki** (Director and Professor of Research Center for Nuclear Weapons Abolition, Nagasaki University)

### *Mongolia*

**Nyamosor** Tuya (Former Minister for External Relations, Mongolia)

### *Republic of Korea*

Myungbok **Bae** (Editor-at-large of The JoongAng Ilbo)  
Yungwoo **Chun** (Chairman of The Korean Peninsula Future Forum)  
Yong-Sup **Han** (Professor at Korea National Defense University)  
Yongsoo **Hwang** (Principal Researcher, Korea Atomic Energy Research Institute)  
Bong-geun **Jun** (Professor of Korea National Diplomatic Academy)  
Sung-hwan **Kim** (Former Minister of Foreign Affairs and Trade)  
Hongkoo **Lee** (Former Prime Minister of ROK)  
Chung-in **Moon** (Co-convenor, APLN / Distinguished University Professor of Yonsei University)

## Observers

Isabelle **Williams** (Senior Advisor, Global Nuclear Policy Program, Nuclear Threat Initiative)  
Jong Kwon (JK) **Youn** (Expert, Panel of Experts established pursuant to Resolution 1874 [in 2009], UN Security Council)

## [APLN Secretariat]

Hyungtaek Hong (Head of APLN Secretariat)  
Jamie Cho (Program Officer, APLN Secretariat)

## APLN

The **Asia Pacific Leadership Network (APLN)** comprises of more than ninety former senior political, diplomatic, military and other opinion leaders from sixteen countries around the region, including nuclear-weapons possessing states China, India and Pakistan. The objective of the group, founded by former Australian Foreign Minister and President Emeritus of the International Crisis Group Gareth Evans, is to inform and energize public opinion, and especially high level policy-makers, to take seriously the very real threats posed by nuclear weapons, and do everything possible to achieve a world in which they are contained, diminished and ultimately eliminated. The Co-Convenors are Professors Chung-in Moon and Ramesh Thakur. The Secretariat is located

at the East Asia Foundation in Seoul, Republic of Korea. See further [www.apln.org](http://www.apln.org).

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