



**Building a New Era of Partnership:  
EU-Korea Relations 1963-2003**

*Understanding and Resolving  
Nuclear Crisis on the  
Korean Peninsula*

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## [The Evolution of the North Korean Nuclear Program]

### 1. Early Efforts, the First Nuclear Crisis, and the Agreed Framework of 1994<sup>1</sup>

North Korea's nuclear program is nothing recent. It is as old as some 50 years. North Korea began an experimental nuclear program in the 1950s. It acquired nuclear technology and related knowledge from the Soviet Union in the 1950s, and had its scientists trained in the Soviet Union since 1956. By constructing a nuclear research complex at Yongbyon in 1964 and by bringing in experimental research reactor IRT-2000 from the Soviet Union in 1965, North Korea ambitiously started its own nuclear program. Then in 1979, North Korea began building a 5 megawatt reactor, and the reactor became operational in 1986. It is reported that in the 1970s North Korea started nuclear reprocessing experiments and extracted small amount of plutonium, the most crucial material for making nuclear weapons. According to defectors, North Korea began constructing nuclear weapon production facilities at the underground site near Yongbyon during this period in the 1980s.

In 1985, North Korea began work on a 50 megawatt gas-graphite reactor at Yongbyon and later initiated construction of a 200 megawatt gas-graphite reactor at Taechon. In addition, North Korea was supposed to receive four light water reactors from the Soviet Union on the condition that North Korea join the NPT. As North Korea joined the NPT in 1985, the experimental reactors that North Korea brought in from the Soviet Union fell under the IAEA surveillance. However, with the collapse of the Soviet empire, North Korea was not able to receive the promised four reactors from the Soviet Union, while being constrained by the NPT.

To avoid the eyes of the IAEA, North Korea had to construct clandestine nuclear facilities to develop nuclear weapons, and beginning in 1982, US spy satellite began surveying suspicious facilities necessary to construct nuclear weapons near the experimental reactor site. In 1987, North Korea began building a "radiochemical laboratory" at Yongbyon. The lab was suspected by the US intelligence as a reprocessing facility for the production of plutonium in weapons-ready form from spent reactor fuel. In 1989, 1990, and 1991, the 5 megawatt reactor was shut down periodically, and it is not known whether the original fuel was extracted from the reactor during the shut down period. If so, it is very likely that North Korea possesses the raw material for producing weapons grade fissile material. This remains as a gray area up until now, and

<sup>1</sup> The chronological data here are compiled from Marcus Noland, *Avoiding the Apocalypse: The Future of the Two Koreas* (IIE, 2000); Michael O'Hanlon and Mike Mochizuki, *Crisis on the Korean Peninsula: How to Deal with a Nuclear North Korea* (McGraw Hill, 2003); Yun Duk-min, *Daeuk Haechypseongui Jeomni* (Haer, 1995); and Don Oberdorfer, *The Two Koreas* (Basic Books, 2001).

North Korea uses this uncertainty adroitly as a strategic shield against the US and its allies in Northeast Asia.

With the growing circumstantial evidence grew calls for international inspections. In December 1991, North and South Korea reached an agreement, "Joint Declaration on the Denuclearization of the Korean Peninsula" renouncing the construction of nuclear reprocessing and uranium enrichment facilities and providing for mutual inspections. In January 1992, North Korea finally signed the Safeguard Agreement (INFCIRC/153) under NPT. As the agreement came into effect in May 1992, North Korea submitted the list of its own nuclear facilities and nuclear materials to the IAEA. Then the IAEA sent 7 inspectors to North Korea to verify the list first in May 1992, and conducted total 6 ad hoc inspections until February 1993. After the inspections, the IAEA discovered serious discrepancy between the list North Korea submitted and inspector team's test data.

The inspector team confirmed US intelligence that North Korea was building facilities capable of producing nuclear weapons and had possibly extracted enough weapons grade plutonium to make one of two "Hiroshima-size" bombs. The IAEA suspected that North Korea extracted at least some "kilograms" of plutonium three times from the spent fuel of existing reactors against North Korea's report of extracting 90g of plutonium from the 5 Megawatt nuclear reactor just once. The inspector team also discovered that the "radiochemical laboratory" was a massive reprocessing facility, and one production line was in operation even during the inspection. Besides, two unreported suspicious facilities were noticed in Yongbyon area.

In February 1993, the IAEA sent a letter to North Korea requesting a special inspection to those unreported facilities, and North Korea rejected the request by arguing that the two facilities were sovereign military facilities. Shortly after the rejection, the UN Security Council announced that it was prepared to take punitive actions unless North Korea accept a special inspection. It is notable that China did not object to the resolution at the time.

North Korea reciprocated the international pressure with its declaration of withdrawal from the NPT in March 1993, and two month later test fired the 1,300km range Nodong 1 missile into East Sea (Sea of Japan). Seeing the possibility of North Korea becoming an enormous threat possessing and exporting nuclear weapons, Clinton administration wanted to negotiate a deal with North Korea. The negotiation process, however, was fully loaded with landmines as both sides resorted to brinkmanship strategy. And the whole process now turned into a bilateral issue between the US and North Korea, as South Korea, Japan, China, and Russia were largely excluded from the negotiation process.

At first, the Clinton administration wanted to exhaust diplomatic means to resolve the nuclear crisis in a peaceful manner. There were several preparatory meetings between the US and North Korea in Beijing and Tokyo before the first High Level Meetings (held four times) between the US and North Korea in June

1993, and the two parties again had second High Level Meetings (three times) in July 1993 in Geneva. Then again, the US and North Korea met many more times at the negotiation table, and North Korea deliberately used foot-dragging strategy before it proceeded with the removal of spent fuel rods from the experimental reactor in May 1994. In other words, North Korea intentionally delayed the IAEA inspections to the unreported suspicious sites, and finally removed the spent fuel rods without the presence of IAEA personnel there, leaving no clues as to how much North Korea might have reprocessed the spent fuel.

Following the adventurous moves by North Korea, the IAEA requested Security Council action, and North Korea reciprocated by threatening possibility of a war. After confirming North Korea's completion of fuel rod removal activities, on the 8<sup>th</sup> of June, 1994, IAEA adopted a resolution to sanction North Korea. The resolution was followed by North Korea's decision to withdraw from the IAEA.

From this point on, the US shifted its policy mode from dialogue to coercion. The Pentagon began serious preparations for war on the Korean peninsula.<sup>2</sup> One option was to use surgical air strikes and covert operations. But this was rejected on the ground that it was not feasible due to lack of information, and the danger of nuclear fallout reaching Japan. Pentagon concluded that in its first 90 days, a war could result in 52,000 US casualties, 490,000 South Korean casualties, enormous North Korean casualties, and cost more than \$61 billion.<sup>3</sup>

North Korea mixed both threatening and conciliatory strategies afterwards. While remarking on the possibility of a war, it also sent signals for a possible deal through diverse channels. Particularly, "the Great Leader" Kim Il-sung delivered a message to Selig Harrison, a journalist of Carnegie Endowment of the US that if the US accepts a comprehensive deal including normalization treaty, and supply of light water reactors, North Korea would stop its nuclear program. Receiving this message, the Clinton administration allowed former President Jimmy Carter's visit to North Korea for a possible bargain. On the evening of June 16, 1994, Carter and Kim Il Sung struck a deal that North Korea would freeze its nuclear activities, and stop expulsion of the remaining IAEA inspectors. It was reported that at the same time, in the White House, General John Shalikashvili, Chairman of the Joint Chiefs of Staff was presenting the war plan to President Clinton.

Against all odds such as the sudden death of Kim Il-sung, and hostile political environment both in the US and South Korea, the United States and North Korea were able to sign an agreement in October 1994. The agreement was coined as "Agreed Framework" or casually called "Geneva Agreement." It contains a schedule of mutual commitments to stop the nuclear program of

<sup>2</sup> Marcus Noland, *Avoiding the Apocalypse*, p.149, Don Oberdorfer, *The Two Koreas* p.330.

<sup>3</sup> Marcus Noland, p.149

North Korea.

The essence of the Agreed Framework is that North Korea would remain within NPT, freeze nuclear activities at the three reactors and related facilities, and allow IAEA inspectors to the three reactor sites. In return North Korea would receive two 1,000 megawatt light water reactors by 2003, 150,000 tons of heavy fuel oil in 1995, and 500,000 tons annually from 1996 to 2003 to compensate for the shut down of its reactors. Prior to the delivery of key LWR components, North Korea should allow the IAEA to resume regular inspections. The Framework also contained the steps toward normalization of economic and political relations between the US and North Korea including removal of US economic sanctions, establishing liaison offices, and eventual diplomatic recognition. However, there still remained a grey area: Past North Korean nuclear activities. The agreement exchanged North Korea's past activities for the freeze.

In March 1995, the US, Japan, and South Korea established the Korean Peninsula Energy Development Organization (KEDO) to oversee the construction of two light water reactors and the delivery of the heavy oil. Of the approximate cost of \$5 billion for constructing the reactors, South Korea would cover \$3 billion, Japan, \$1 billion, and the US, the EU and other members of the consortium share the rest. The cost for heavy oil was to be covered by the US, but this deal was never popular in the US Congress resulting in many controversies not only within the US but between the US and North Korea. Though irregular, the delivery continued up until 2003 when the second nuclear crisis broke out.

## 2. North Korea's Continued Efforts and the Second Nuclear Crisis.

In October 2002, US Assistant Secretary of State for Asia-Pacific Affairs, James Kelly visited North Korea and is reported to have suggested evidence of North Korea's highly enriched uranium (HEU) program to develop nuclear weapons. In response to James Kelly's evidence, North Korean officials acknowledged such a program and said they were "entitled to have nuclear weapons." It is not yet certain whether or not North Korea indeed has developed nuclear weapons through HEU program. But it became evident that North Korea has violated the Agreed Framework, and the agreement of Denuclearization of the Korean Peninsula, and IAEA safeguard agreement under NPT.

Both South Korean and US intelligences had uncovered the existence of HEU program since the summer of 2002, but with the North Korea's acknowledgement, North Korea revealed to the world of its continued efforts to develop nuclear weapons even under the Agreed Framework. US intelligence speculates that North Korea began its HEU program in the late 1990s, possibly around 1997 or 1998 using North Korea's arms dealing connections with Pakistan.

The date of the beginning of the HEU program is quite important because it tells us whether or not the program started before Kim Dae-jung government's sunshine policy (from 1998 on), the first inter-Korean summit meeting (June 15, 2000), and the inauguration of the hard-line Bush administration (2001). Many people argued that North Korea's revived efforts to develop nuclear weapons were caused by hard-line policies of the Bush administration, particularly after the administration's inclusion of North Korea as a part of the axis of evil in January 2002, and the publication of NPR (Nuclear Posture Review) in the early 2002 where North Korea is described as a possible target of US nuclear preemptive strike.

The beginning date of the HEU program around 1997 or 1998 tells us that North Korea's efforts to possess nuclear weapons began even before the inception of the Bush administration, and even during the thawing period of South Korea's sunshine policy (engagement policy) and the historic inter-Korean summit meeting. Perhaps the HEU program may have been caused by the newly emerging international debate on "humanitarian intervention" in the late 1990s and the Kosovo crisis where the US militarily intervened in the name of humanitarian causes. But the evidence is unclear. What is obvious is that North Korea does want to have nuclear weapons and has wanted to have nuclear weapons for a long time at least since the 1970s.

The 9-11 terrorist attack in 2001 has changed the security landscape of Northeast Asia drastically. Besides ABC (Anything But Clinton) policy of the Bush administration, the prevention and eradication of terrorist threats to the US has become the cornerstone of US foreign policy. Against this backdrop, it is not very surprising that North Korea's nuclear program became a main target of US hard-line policies in Northeast Asia because transfer of nuclear materials from North Korea to the hands of terrorists would incur a huge devastating threat to the US. The publication of NPR and the remark of the axis of evil are a broad strategic roadmap of the US in dealing with new security threats to the US.

The essence of the changed security landscape of Northeast Asia is the confrontation between the US and North Korea, and the ambivalent position of the South Korean government. The initial official response of North Korea after the meeting with James Kelly was quite defensive. On October 25, 2002, Foreign Ministry of North Korea proposed a non-aggression pact with the US. The US response was chill and the US repeated its position of "no dialogue without the dismantlement of North Korea's nuclear program." In November, under the strong US influence, KEDO decided to stop delivery of heavy fuel to North Korea accusing North Korea of violation of the Agreed Framework. About a week after the decision North Korea rebutted the decision accusing the US of violating the only part of the Agreed Framework that the US had been complying.

Then entered the escalation stage between the two countries. On December 9, a North Korean vessel, carrying missile exports to Yemen was

interdicted by the Spanish navy (having received the information from the US intelligence) and released shortly. North Korea got furious arguing violation of international law by Spain and the US. Three days after the interdiction, North Korea declared its intention to reactivate the frozen nuclear facilities to “supplement the electricity shortage” caused by KEDO’s decision to stop the delivery of heavy fuel. A week later, North Korea removed the seals from its stock of waste fuel and also removed monitor cameras at the 5 Megawatt reactor in Yongbyon. Then on the Christmas eve, North Korea completed removing seals and monitor cameras at radiochemical laboratory in Yongbyon. A week later, IAEA inspectors in North Korea were expelled.

The New Year (2003) is the beginning of an approximate rerun of 1993. In 1993 North Korea turned into a copycat of its own brinkmanship strategy of 1993. On January 10, North Korea again declared withdrawal from the NTP. In late February, the US confirmed the reactivation of the 5 Megawatt reactor. North Korea also test fired three short range cruise missiles between February 24, and April 1. In mid April, North Korea’s Foreign Ministry announced that North Korea was proceeding very successfully to the last stage of reprocessing 8,000 spent fuel, and made public in late April that the reprocessing was being done for the deterrence purpose against the US.

In the meantime, the US, South Korea, and Japan also reciprocated North Korea’s brinkmanship with two summit meetings. The new Noh Muhyun government of South Korea had been quite reluctant in tightening pressure towards North Korea as his political success was rooted in the inheritance of sunshine policy and “progressive” domestic support base from the previous administration. This made the Noh government quite ambivalent in formulating North Korea policy particularly in the face of US demand to coordinate the strategies of alliance partners. However, at the summit in the US in May, Noh and Bush made a joint statement to consider “additional measures” after exhausting peaceful measures. A week later, at the US-Japan summit meeting, Koizumi and Bush again emphasized that they would not tolerate North Korea’s nuclear program and surrender to its blackmail. They also urged “complete, verifiable, and irreversible dismantlement” of North Korea’s nuclear program.

These actions and reactions between the US and North Korea did not escalate the tension further to the eruption point. In fact, the actions and reactions have been intervened by several dialogue attempts. The first of which was a tripartite talk between the US, North Korea and China held in Beijing in late April 2003. This tripartite talk was an important turning point because both the US and North Korea retreated from its earlier position somewhat. The US retreated from its earlier position of “no dialogue without dismantlement of North Korea’s nuclear program” and North Korea also weakened its earlier position of having only bilateral talk with the US. It is also notable that through the tripartite talk China made a debut as a critical mediator in resolving the nuclear crisis and arranging venues for further dialogues.

The tripartite talk ended without a concrete result. The US and North Korea just reconfirmed their own positions, and North Korea's strategy to draw a picture of bilateral composition between the US and North Korea contrasted sharply with the US strategy to make it multilateral. However, as it turned out later, the tripartite talk became a springboard to produce genuine multilateral talks later in 2003.

From May, North Korea increasingly revealed the possibility of accepting multilateral format to cut a deal with the US. And through ardent efforts by China, North Korea finally accepted participating in the 6 party talk to be held in Beijing in August 2003. The other parties, South Korea, the US, Japan, Russia, and China also accepted the proposal, and the first 6 party talk was held from August 27 to 29. The talk again ended without a concrete result. But all the parties affirmed the utility of 6 party talk, and reconfirmed the principle of peaceful resolution of the crisis.

Some points of the chairman's summary of the first 6 party talk, however, is worth noting. In the chairman's summary, the 6 parties agreed to the following points: (1) "to explore an overall plan to resolve the nuclear issue in a just and reasonable manner and in a simultaneous and incremental way"; (2) "while a nuclear free Korean Peninsula should be realized, the security concerns of the Democratic People's Republic of Korea should also be taken into consideration"; (3) "in the process of negotiations any action or word that may aggravate the situation should be avoided." One can interpret these points as a general guideline to the resolution of the nuclear crisis in a peaceful and reasonable manner taking security concerns of North Korea into consideration. The clear target of the US at the time seems escalation control before further deterioration of the situation in Iraq and the presidential election in 2004.

The efforts to hold another round of 6 party talk continued again with China being the key mediator, and at this writing, another round is likely some time in December. As usual, North Korea has been mixing soft and hard tactics before negotiations, and for that purpose continuously emphasized its deterrent capability against the US by taking advantage of uncertainty of its nuclear program: when one is not sure whether or not North Korea indeed has nuclear weapons, it is very risky to contemplate striking the North. On the other hand, with such an uncertainty, North Korea can strengthen its own bargaining card towards the US, and maintain its security to a certain extent.

### **[Why Does North Korea want to have Nuclear Weapons?]**

International and national security is a game of trust and mistrust. Once one trusts others, others' nuclear weapons and formidable conventional weapons do not matter much. However, if one does not trust others, one has always to stay alert as to what others might do in the future. Especially if others include one or more powerful states such as the superpower US, it is very

tempting to develop and possess nuclear weapons because nuclear weapons are the cheapest but the strongest shield against the external aggression. One can also use the nuclear weapons as a coercive means to others.

As seen above, North Korea has shown a very strong desire to acquire nuclear weapons since the 1970s. Under NPT North Korea continued to pursue nuclear weapons, and also under Agreed Framework it did not stop. In the 1980s and the 1990s, North Korea lost its key patrons, the Soviet Union and China and the external environment became even worse as almost all the countries of the world began participating in the globalization process denying the promises of the socialist economic system. North Korea is literally alone and on its own, has nobody to trust except itself.

At the same time, the capability gap between North Korea and South Korea has widened since the 1980s. As of 2001, South Korea's GNI is 26.7 times larger than the North, and GNI per capita is 12.6 times larger.<sup>4</sup> South Korea's defense budget almost equals 2/3 of North Korea's entire GDP. The total amount of trade of South Korea is 128 times larger than that of North Korea, and Korea produces 517 times more automobiles, and 41 times more steels. The economic capability of the North is simply no match for the South.

With regard to military capability, North Korea exceeds South Korea in terms of numbers. North Korea has nearly 1.1 million troops in its active duty forces, and about 6 million in its reserves. Of 1.1 million, nearly 90% are ground forces. North Korea has 3,500 main battle tanks, 3,000 armored personnel carriers and light tanks. The most threatening weapons are more than 12,000 large bore artillery tubes. Some 500 of its artillery pieces can reach Seoul. North Korea has 620 combat aircrafts and 24 armed helicopters for its air force. It also has 26 full size submarines and about 55 mini-submarines. In addition it possesses about 7,500 mortars, 500 ballistic missiles, 11,000 air defense guns, 10,000 surface to air missiles, and numerous variants of antitank guided weapons. North Korea probably has chemical and biological weapons, too.<sup>5</sup>

However, most of North Korea's military equipment are of roughly 1960s design or older. As it is estimated that modern Western weaponry is generally two to four times better than older Soviet vintage system,<sup>6</sup> North Korea's military hardware should not be overestimated. In addition, due to energy shortage, North Korea has been far behind South Korea in terms of actual military exercises, and training air force pilots. Probably North Korea cannot operate its hardware to the fullest potential.

South Korea's military looks inferior in terms of numbers. Its size is a little more than half the size of North Korea's, be it personnel, major equipment holdings or force structure. However, Michael O'Hanlon and Mike Mochizuki of Brookings Institution of the US make a quite different and impressive

<sup>4</sup> Statistics Agency of Korea (2003)

<sup>5</sup> Michael O'hanlon and Mike Mochizuki, *CrisisontheKoreanPeninsula*, p.66.

<sup>6</sup> Ibid., p.67.

qualitative evaluation of South Korea's military capability.

“Overall, South Korea's military has become a very good institution in modern times. It is probably one of the stronger militaries in the world, in fact—quite possibly belonging on any top ten list of international armed forces. It has its limitations and its problems but at this point in history is probably better than North Korea's. It also presents a formidable forward-defense capability against any possible North Korean attack.”

South Korea's major combat equipment is estimated to be roughly equal in aggregate to North Korea's. More importantly, Pentagon's official assessment of the Korean military balance now suggests that, due to qualitative advantages, South Korean forces are superior to those of North Korea.<sup>7</sup> With the presence of the US troops and intelligence equipment, it is no doubt that allied forces command far superior military forces to North Korea.

In compensating these military and economic disadvantages, North Korea does not have any other options but going nuclear. Furthermore, North Korea's nuclear program has already become a huge sunk cost as well as the highest priority. Therefore, it becomes a common sense that North Korea will not dismantle its nuclear program unless it is paid huge, and feels quite comfortable with the surrounding countries. Besides, North Korea's security environment has deteriorated further since the signing of the Agreed Framework in 1994.

The distrust between the US and North Korea has been long fermented. They were the archenemies during the Cold War, and North Korea still remains on the terrorism list of the United States. From the US point of view, North Korea has been selling sensitive weapons to other “rogue states,” and after 9-11, is a major threats to the world as well as to Northeast Asia. However, from the North Korean point of view, the US can also be viewed as threats. The US is leading the process of globalization in which North Korea can find no place, and attacking the political and economic systems of different kinds, such as Milosevic's Serbia, Iran's theocracy, Iraq's dictatorship, and Taleban's Afghanistan. Particularly, in the late 1990s, US humanitarian intervention in the Kosovo crisis is said to have posed a tremendous threat to North Korea that has a long history of serious human right violations.

As mentioned above, US description of North Korea as a part of the axis of evil, designation of North Korea as a possible target of nuclear preemption in NPR, and finally the actual US military campaign against one of the axis of evil, Iraq, may have shocked the North Koreans. These changed external security environments seem to have prompted North Korea's beefed up efforts to

<sup>7</sup> Ibid., p.70.

strengthen its deterrent capability.

At the same time, both the US and North Korea have reasons to destroy the Agreed Framework. The experiences of being double crossed since the signing of the Agreed Framework in 1994 led North Korea to decide to recover the investments it made to the nuclear program, and led the US to nullify the legacy of the Clinton administration. Each claims that the other side violated the agreement as follows.

- The US interpretation: "According to the Agreed Framework, North Korea agreed to freeze its graphite-moderated reactors and related facilities. But North Korea acknowledged the existence of HEU program in October 2002, and that is the violation of the Agreed Framework, NPT, IAEA safeguard agreement, and the Joint Declaration of Denuclearization of the Korean Peninsula."
  
- North Korean interpretation:
  - (1) "According to Article 1 of the Agreed Framework, the US agreed to make arrangements for the provision to the DPRK of a LWR project with total generating capacity of approximately 2,000 megawatt by the target date of 2003. But notwithstanding 100% freeze of reactors and related facilities by North Korea, LWR project is only 15% complete.
  - (2) "According to the Article 2 of the Agreed Framework, the US agreed to reduce barriers to trade and investment within three months of the date of the Agreed Framework. But the US did not implement it. The US also agreed to upgrade bilateral relations to the Ambassadorial level, but the US did not do it."
  - (3) "According to Article 3 of the Agreed Framework, the US agreed to provide formal assurances to the DPRK against the threat or use of nuclear weapons by the US, but the US violated this part by designating North Korea as a potential target for US nuclear preemption in 2002 NPR."

These conflicting interpretations show deep-rooted distrust between the US and North Korea. The weaker state in this situation usually tends to increase its deterrent capability before it gets preempted by the stronger. Especially after watching the unfolding of the war in Iraq, North Korea may have decided to develop nuclear weapons rather than disarming itself by accepting inspections from the IAEA and the US.

In sum, North Korea's tenacious love towards nuclear weapons is based upon multi-purpose calculation: deterrence, coercion, bargaining, and regime maintenance. In other words, North Korea has wanted to possess deterrent capability against any outside powers that try to attempt regime collapse or regime change. At the same time, if North Korea owns nuclear weapons, it can

use them to coerce others such as South Korea and Japan, and it can increase its bargaining position. If North Korea can have both nuclear weapons, and concessions from others through brinkmanship bargaining, that would be the perfect outcome that North Korea can produce. This calculation should not be too surprising to South Koreans because the late President Park Chunghee also tried to develop nuclear weapons in the 1970s when the US was withdrawing its troops from the Korean Peninsula.

### **[How to Resolve the Current Nuclear Crisis]**

As analyzed by the Pentagon in 1994, North Korea's retaliation in response to the US surgical or preemptive strikes would incur devastation to the people in Seoul, US soldiers near DMZ, and the Japanese citizens. Even if the US may have the ability to preempt many of the North Korean artillery pieces near DMZ before they get operational, huge casualties are still inevitable. In addition, if the US misses just one nuclear weapon in the North due to lack of information, the next news may be the nuclear retaliation by North Korea. The Bush administration, suffering from continuing and increasing casualties in Iraq, and the growing budget deficits, may not risk another war in such an explosive warehouse in Northeast Asia. Therefore, military solution at this moment is nearly out of the question. Then, the remaining solution should be bargaining either through dialogue or coercion.

At the moment, North Korea and the concerned parties at 6 party talk all accept the importance of dialogue. North Korea may see dialogue (6 party talk) as a strategy for earning time before the US presidential election in 2004. Perhaps North Korea may want to muddle through without being attacked while pursuing a clandestine nuclear program. Or North Korea may indeed want to bargain away its nuclear program in exchange for huge economic aid and security guarantee by the international community including the US. On the other hand, the US perhaps sees dialogue useful because repetition of unsuccessful rounds of dialogues will provide the US with justification for using coercive measures. Or else, with the victory of the State Department in the internal turf battle on the issue of North Korea, largely excluding the neo-cons of the Pentagon, the US may be genuinely interested in peaceful resolution of the crisis.

In resolving the crisis, the role of China is also very crucial because China holds the strongest leverage against North Korea providing most of the energy aid to the North. China traditionally has used North Korea as a buffer state. As long as this conception remains unchanged, China will not commit itself to the coordinated coercive measures that will collapse Kim Jong Il regime. At the same time, collapsed North Korea will generate huge influx of refugees to China, and China cannot afford to receive these North Koreans. Russia's location in the configuration of the 6 party solution lies in its energy

and railroad resources. Russia's vast natural gas reserves can be an alternative source of energy to North Korea's nuclear energy, and the connection of trans-Korean railway (TKR) with trans-Siberian railway (TSR) will give a good opportunity for North Korea to earn hard currencies as a passage state.

South Korea and Japan's leverage will be their money and economic aid. No matter what the final solution may turn out, South Korea and Japan will end up paying money to North Koreans either in the form of economic aid or war compensation by Japan. However, without clear proof of North Korea's intention to dismantle or actual dismantlement of the nuclear program, and without a reasonable resolution of kidnapping case for Japan, North Korea may not see money flowing into its own territory.

Many ideas are in the offing for the next round of 6 party talk in Beijing. However, the gist centers on the issue of verification and security assurance. The US wants "complete, verifiable and irreversible" dismantlement of North Korea's nuclear program whereas North Korea wants a credible security assurance from the US in the form of non-aggression pact. Yet in reality verification will not be 100% feasible nor will be the security assurance. Then the issue returns to the problem of trust. Simply put, the process will be circular: Starting with distrust, ending with distrust.

Within this context, peaceful resolution of the nuclear crisis through dialogue will only be possible in the following format: First, when trust is missing during the bargaining process, simultaneous actions are the only feasible approach. Otherwise, out of distrust nobody will move first. Second, since the malign security environment has been created by both the US and North Korea, they should be the main actors in ameliorating the security environment. In other words, the US needs to be extremely assuring in its promises not to attack or transform North Korea while North Korea needs to be very credible in its cooperation with the US in dismantling its nuclear program and also in US anti-terrorism campaigns. Third, the deal should be comprehensive and incremental. It should be incremental because there should be a clean verification period to hedge against cheating by any party before moving toward the next stage. The deal should be comprehensive, because unsolved problem will later explode. The deal therefore should include not only the nuclear program of the past but also the HEU program, other WMD, conventional weapons, human rights, and economic reform. The deal also needs to include ultimate normalization of relations between the US and North Korea. Fourth, North Korea should be economically aided to prosper after the deal. Prosperity will bring about North Korea's peaceful transition toward more liberal regime, and prosperity and peaceful transition will produce the final consolidation of the whole process making North Korea cross the river of Rubicon.

Realistically, and candidly speaking, the complete resolution of the nuclear crisis can only be possible when North Korea becomes a completely

different country. If North Korea is Switzerland, no more quarrel is necessary. That possibility can only be realized either through the collapse of the current North Korean regime or a very long process of gradual regime transformation. Obviously, most of the concerned parties in the 6 party talk prefer the latter rather than the sudden collapse.

Yet, given the long history of enmity between the US and North Korea, and the huge sunk cost that North Korea invested in the nuclear program for a long time, it may be reasonable to imagine that they will eventually go nuclear unless rewarded by irresistible offers. Therefore, without the collapse of the current North Korean regime, and without a good list of irresistible offers, international community may never be able to stop North Korea's nuclear program. Perhaps Pakistan is the role model for North Korea at the moment. Under this situation, one should not bet all the chips on the dialogue. When the collapse of the North by military means becomes the option, we need to be prepared to risk the lives of many people. If we have to live together with nuclear North Korea, then the next plan should be making North Korea next but little China. Then negotiate dismantlement of nuclear weapons and program again!