

## North Korea and the NPT

### SUMMARY

- The Democratic People's Republic of Korea (DPRK) became an NPT state party in 1985, but announced in 2003 that it would no longer be bound by the treaty. Since that time, negotiations over the North Korean nuclear program have not resolved the dispute between the DPRK and the international community.
- North Korea tested a nuclear weapon in 2006 and in 2009. Subsequently the Security Council adopted two Chapter VII resolutions condemning the tests and imposing sanctions.
- Both the DPRK's withdrawal from the NPT and its nuclear-weapon tests constitute significant challenges to the NPT regime.
- Issues of particular concern in the NPT Review Conference will be the status of the DPRK within the NPT; the adequacy of the NPT's rules governing treaty withdrawal; and the ability of the international community to require compliance with NPT terms.

On January 10, 2003, the Democratic People's Republic of Korea (DPRK) said that it could "no longer remain bound to the NPT." The DPRK was the first, and is still the only, NPT state party to make this declaration. The fact of the DPRK's treaty withdrawal poses short-term questions about the DPRK's status (if any) within the NPT, and about the adequacy of the NPT's provisions for treaty withdrawal. It also poses longer-term questions about the ability of existing international institutions to oversee implementation of treaty obligations related to nuclear nonproliferation and disarmament.

### EARLY PROGRAM HISTORY

The DPRK took initial steps toward the development of a civilian nuclear program in the 1950s.<sup>54</sup> With the end of the Korean War, North Korean leaders began promoting the development of scientific and engineering expertise, including in the area of nuclear physics. They signed several agreements to cooperate on training with the Soviet Union. In 1959, the Soviets agreed to supply the

DPRK with a research reactor, and to assist in the development of a nuclear-research center. By the early 1960s, the DPRK had received the research reactor and construction of the Yongbyon Nuclear Research Complex was underway. The research reactor is believed to have come on line in 1967.

In the 1970s, the DPRK strengthened its indigenous capabilities; this included upgrading the research reactor and constructing a university-based "experimental nuclear facility." Toward the end of the decade, the North Koreans started work on the experimental 5MW(e) reactor at Yongbyon, which was indigenously designed. It would use natural uranium,<sup>55</sup> mined in North Korea.

By the beginning of the 1980s, the DPRK therefore had within its borders all the necessary elements for an indigenous program: expertise, i.e., trained scientists and engineers; their own supplies of natural uranium; and experience in building and operating nuclear facilities. During the 1980's they began to build a 50 MW(e) and a 200 MW(e) reactor. The 5MW(e) reactor came online by mid-decade. The DPRK also started construction of a "radiochemical laboratory," essentially a reprocessing facility. And they requested two additional reactors from the Soviet Union.

Outside experts are divided about when the DPRK may have begun applying these indigenous capabilities to the development of a nuclear-weapons program: some would say it was in the 1970s, others put it considerably later. The decision may have been a gradual one, where options were kept open but not necessarily pursued right away. In any case, two points are important here: the DPRK's nuclear program is longstanding, beginning only a few years after the founding of the country itself; and although the DPRK had external assistance in the very early days of its program, it had developed its indigenous capabilities quite early in the program's history. Both of these factors would shape how international institutions and

<sup>54</sup> The analysis of the historical background is adapted from Christine Wing, "The IAEA and the DPRK," in *Dismantle and Disarm: Lessons from the IAEA*, by Christine Wing and Fiona Simpson (forthcoming 2010, tentative title). It also draws from contemporaneous news reports and subsequent NGO reporting. Detailed sources provided on request.

<sup>55</sup> Natural uranium does not have to be enriched before it can be used as reactor fuel in certain kinds of reactors.

other governments later interacted with the North Koreans.

### IAEA INSPECTIONS (1992-1994)

The emergence of DPRK nuclear capabilities did not go unobserved, and increasingly through the 1970s and the 1980s, the country was urged to participate in the international agreements that deal with civilian nuclear programs. The Soviets wanted the research reactor to be safeguarded, which it was in 1977 (the DPRK had joined the IAEA in 1974). By the mid-1980s, the North Koreans were under growing pressure to join the NPT. They did so in 1985, at the urging of the Soviet Union, which, apparently, would agree to supply the two requested reactors only if the DPRK had joined the NPT.

The DPRK did not sign a Safeguards Agreement with the IAEA until April 1992, at which time it also submitted an initial inventory of its nuclear holdings. The IAEA then took the routine next step of inspecting nuclear facilities and materials, to verify that the DPRK's initial declaration was correct. The origin of the current impasse concerning the DPRK's nuclear program can be found in that early effort at verification.

The IAEA's inspection activities in the DPRK began in May 1992, and went relatively smoothly at first. But eventually the agency identified significant discrepancies between the DPRK's initial declaration, and the analysis of the information collected through inspections. The Agency asked to visit and take samples from two waste sites, so the discrepancies could be resolved. But the DPRK would not allow them to do so.

In early 1993, the IAEA invoked the heretofore unused part of the Safeguards Agreement that allows the Agency to carry out "special inspections," when necessary for verification of a country's reported nuclear holdings. The DPRK was still unwilling to grant access, and as the disagreement continued, the North Koreans announced, in March 1993, that they planned to withdraw from the NPT in three months time, as allowed by the treaty in Article X(1).<sup>56</sup> Eventually, through discus-

sions between the North Koreans and the US, the DPRK agreed to "suspend the effectuation" of their withdrawal from the treaty.

The IAEA and the DPRK continued to disagree about access, however, and the situation deteriorated such that, by March 1994, the IAEA removed inspectors from the DPRK. In May 1994, the North Koreans began to unload fuel rods from the 5MW(e) reactor, without the presence of the IAEA—which the Agency had repeatedly requested, saying it was essential for making determinations about the history of the program; and to assure that none of the spent fuel was diverted.

A major crisis ensued, in which there were real fears that the inspection regime could not be made to work; and the US seriously contemplated military action against the DPRK. In part through the intervention of former President Jimmy Carter, the crisis was defused in June 1994. Subsequent discussions between the DPRK and the US resulted in the "Agreed Framework" in the fall of 1994.

### THE AGREED FRAMEWORK (1994-2002)

In the Agreed Framework, the US said that it (with the Republic of Korea and Japan) would help the DPRK to build two light water reactors, in exchange for a freeze on all nuclear activities by the DPRK. It was agreed that the IAEA would verify that freeze; that the DPRK would also allow verification of its initial declaration; and that the consortium led by the US would supply fuel oil to the DPRK as the process moved forward.

Implementation of the Agreed Framework was bumpy at times, especially later in this period, but there were important achievements. The DPRK did freeze its nuclear activities, which meant that it was not producing plutonium throughout this period. The freeze was verified by the IAEA. Fuel oil was shipped to North Korea by participating countries. Through the activities of the Korean Peninsula Energy Development Organization (KEDO), substantial progress was made in building the infrastructure for a light water reactor in North

<sup>56</sup> The relevant part of Article X says: "Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests."

Korea.

Still, the IAEA never was able to verify the DPRK's initial declaration. Moreover, as governments in the key countries changed over time, support for implementation of the Agreed Framework waned, including in the US—which became lukewarm to the Agreement when Administrations changed in 2001.

The final blow to the Agreed Framework came in the fall of 2002, when the US, in the first set of bilateral talks for some time, told the North Koreans that the US had evidence that the DPRK was developing a uranium enrichment capability. Initially the North Koreans appeared to confirm this, although later they would claim that it was not the case. Uranium enrichment would have violated the terms of the Agreed Framework, and by the end of the year, fuel supplies were suspended. The IAEA asked for North Korean cooperation in clarifying the recent reports concerning an enrichment program, but this did not occur. The DPRK declared its intention to resume operations at nuclear facilities—though saying that they did not plan a weapons program. They removed passive verification measures and told the inspectors to leave. Early in January 2003, the DPRK said it could “no longer be bound” by the NPT. Within a few months the US claimed evidence of activity at the RadioChemical Laboratory, and suspected that the North Koreans were starting to re-process fuel rods that had been in storage.

### THE SIX-PARTY TALKS (SINCE 2003)

Despite these developments, talks were soon underway among the DPRK, China, and the US. In August of 2003, the Republic of Korea, Japan, and Russia joined in, as the “Six-Party Talks” came into being. This remains the framework for efforts to resolve the dispute between the DPRK on the one hand, and the US and regional states on the other.

Six-party talks continued through the middle of 2004, with no visible progress. In February 2005, the North Koreans said that they had nuclear weapons and were going to suspend their participation in six-party talks, due to hostile policies by the US. The talks did not begin again until mid-July of that year. In the meantime, the North Koreans unloaded spent fuel from the 5MW(e) reactor.

Analysts estimate that they could have produced enough plutonium for one to three nuclear devices from the reprocessed fuel. The reactor apparently went back into operation by September 2005.

At that point there was a breakthrough of sorts at the six-party talks, resulting in an agreement in which the DPRK said it would abandon all nuclear weapons and programs, and return to the NPT and to safeguards. The US “affirmed that it has no nuclear weapons on the Korean Peninsula and has no intention to attack or invade the DPRK with nuclear or conventional weapons.” In addition, “...The DPRK stated that it has the right to peaceful uses of nuclear energy. The other parties expressed their respect and agreed to discuss, at an appropriate time, the subject of the provision of light water reactor to the DPRK.”<sup>57</sup>

Almost immediately the statement was undermined by differing interpretations about “provision of light water reactors.” It did not help when, in mid-September 2005, the US signaled its intention to sanction a Macao-based bank for money laundering and its dealing with North Korea. The DPRK, for its part, said that it would not abandon its weapons and programs as long as their Banco Delta Asia funds remained frozen. One more round of talks was held in November 2005 but the parties did not meet again until December 2006.

By that time, the DPRK had announced and then conducted its first test of a nuclear weapon. The October 2006 test, thought to be less than 1 kiloton, removed any doubt about whether the DPRK had a weapons program. It was widely condemned in the international community, including by the Security Council, which passed Resolution 1718 denouncing the test and calling for sanctions and embargoes on some goods and equipment. The resolution was passed under Chapter VII of the United Nations Charter.

Shortly thereafter, China announced an agreement among the parties to resume the Six Party dialogue. By mid-2007, the agreements reached had led to significant change: the DPRK closed, and began dismantling, its nuclear facilities, with verification by the IAEA; substantial quantities of fuel oil were supplied to the DPRK; and the frozen funds at Banco Delta Asia were returned to

<sup>57</sup> “Full text of Six party talks joint statement,” Kyodo September 19, 2005.

North Korea. In 2008, the US removed the DPRK from its list of “State Sponsors of Terrorism.”

Again, however, the process derailed, partly over questions about the completeness of North Korea’s declaration of nuclear materials, but also in the context of increasing concerns about alleged North Korean nuclear-related assistance to Syria, and, by early 2009, to the DPRK’s decision to launch a communications satellite (thought by some to be a cover for missile development). The DPRK then announced that it would resume the operation of its nuclear facilities, and begin reprocessing fuel rods again. They conducted another weapons test in May 2009. This was followed by the adoption of Security Council Resolution 1874 and additional sanctions. Since that time, the efforts at negotiation have continued their on-again, off-again character.

#### THE DPRK AND THE NPT REVIEW CONFERENCE

The issues at stake in the impasse over the DPRK’s nuclear program are not ones that can be resolved in the NPT review process. A resolution will come, if it comes at all, through agreements among the six parties and a lasting implementation of those agreements.

Nonetheless, the DPRK’s withdrawal from the NPT, the difficulties that the international community has had in addressing that withdrawal, and the failure to find a lasting resolution to disputes over the North Korean program, constitute a significant challenge to the NPT and the non-proliferation/disarmament efforts of which it is a part. Those challenges range from the specific to the systemic, and all will arise for discussion, in some form, at the 2010 Review Conference.

**The DPRK’s status.** First, there is the question of whether the DPRK is in or out of the NPT. Its withdrawal from the treaty would seem to make clear that it is no longer a state party. However, relevant institutions, including the Security Council, have been reluctant to acknowledge that withdrawal; and North Korea is still listed among the state parties to the NPT in United Nations documents (although with a mention that the “status of the membership of the DPRK is uncertain”). In the 2005 Review Conference—the first after the DPRK’s decision to leave the NPT—when the North Koreans did not participate, the chair addressed the question of status by holding

the DPRK’s nameplate aside.

This reluctance to acknowledge the DPRK’s use of Article X has several rationales. If the DPRK chooses to return to the NPT, it might be preferable to have never had an “official” NPT withdrawal: a possible precedent-setting event would have been avoided. In addition, to accept that the DPRK left the NPT, after developing (what became) a nuclear-weapons program, leaves two unattractive alternatives: not to do anything in response to the withdrawal, suggesting it is an acceptable practice to develop the basis for a weapons program and then leave the treaty; or to do something, i.e., to create consequence for withdrawal—for which the legal basis is unclear, since the DPRK “simply” exercised a right that Article X affirms. Finally, to acknowledge the DPRK’s withdrawal from the treaty is to establish an additional “category” of nuclear-weapon state, i.e., a former NPT non-nuclear-weapon state that is now a nuclear-weapon state outside the NPT. It is a category that contradicts the purposes of the NPT and that, if it acquires additional members, will further erode the credibility of the treaty.

The DPRK’s withdrawal from the treaty raises a slightly different problem, as well: it has created a situation in which a “return to the NPT” has become a bargaining point, as noted in one occasion discussed earlier.

**Reconsidering Article X?** These various issues have led to discussion within the NPT review process about whether Article X should be amended or supplemented by certain “consequences”; perhaps, for example, to attach conditions that say states that leave the treaty must return any outside materials received, and used, to develop their nuclear program.

Two concerns come immediately to mind. If the goal of these conditions is to thwart a country’s nuclear weapons program, then its effectiveness depends in large measure on the extent to which the state had received external support for the development of its program, and to which it continues to rely on that support. The DPRK is a good example of a state with indigenous capabilities that can be accessed when necessary—witness their progress in developing a weapons program in the period after the January 2003 treaty withdrawal. Secondly, there is great reluctance to open the NPT

for any amendment, for fear other provisions in the treaty might become open to amendment as well—a process that most observers think could lead to disarray in, if not collapse of, the NPT. One question is whether some additional measures related to, but not amending, Article X, would be desirable and possible.

**Effectiveness of the larger system.** For nearly twenty years, multilateral institutions, coalitions, and national governments have been actively working to assure that the DPRK, an NPT State Party until 2003, does not have a nuclear-weapons program. From 1995-2002, when the Agreed Framework was in place, these efforts had some real effect, as the DPRK verifiably halted its production of plutonium. Nonetheless, the DPRK eventually resumed plutonium production, it says it has an enrichment program in development, and it has produced nuclear weapons. Although these weapons are presumably not yet deliverable, the multilateral effort has, to date, resulted in failure.

Regardless of how NPT states parties ultimately handle the DPRK's withdrawal from the treaty, this case raises a larger and more fundamental question: whether, and under what conditions, existing multilateral institutions are able to stop a state from developing a nuclear-weapons capability, short of military action against that state. The Security Council, where these issues ultimately arrive, has been relatively attentive to the question of the DPRK's nuclear (and missile) program—passing four resolutions and two presidential statements since 1993 concerning actions by the DPRK. But the Council has been reticent about the DPRK's NPT withdrawal (perhaps for the reasons discussed

above), and a solution to the dispute over the DPRK's program remains elusive.

How important is this? One could argue that there are only a few situations in which an NPT state is alleged to have a nuclear-weapons program—and that this small number of cases does not necessarily imply that the system as a whole is inadequate. However, since we are talking about *nuclear* weapons, and since their introduction into any regional context may promote regional insecurity and nuclear proliferation, it seems risky to dismiss the few “hard cases.” Presumably it is this dilemma that in part drives the new attention to disarmament in some nuclear-weapons states, as they come to believe that, in the world of the twenty-first century, the only guarantee against nuclear proliferation is nuclear disarmament.

Yet plans for longer-term disarmament are not an answer to the challenges posed by the DPRK's program. Global disarmament will not be quickly obtained, particularly to the extent that it is pursued in an equitable and nondiscriminatory way. And in any case, even if the world were peacefully disarmed by 2020, similar issues of compliance, verification, and enforcement would remain. It is important, therefore, to re-visit the evolution of these “hard cases” and to see if there are points where the outcome could have been different: if states and international institutions had taken different positions, could a resolution have been achieved? The DPRK experience may be particularly useful in this regard, since it contains within it a period of substantial success, as well as a later experience of actual program dismantlement. Could those have been sustained in any way?