KEDO: WHICH WAY FROM HERE?

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Contrary to the early skepticism, the Korean Peninsula Energy Development Organization (KEDO) has not only survived; in some ways it has actually flourished. KEDO and the DPRK (North Korea) have been able to forge a solid working relationship, which has been reflected in numerous agreements that interpret and implement the original commitments set forth in the 1994 Agreed Framework. More important is what KEDO has prevented—including the halting of its reprocessing of fissile material for atomic bombs. Inspectors from the International Atomic Energy Agency (IAEA) have been allowed continuous access to monitor this “freeze.” To date, there have been no publicly confirmed reports of the North cheating on this arrangement. Yet if KEDO were judged on its ability to efficiently manage an international construction project, it would be fortunate to receive a “gentleman’s C.” But that may be the wrong way to assess its performance. Fundamentally, KEDO is a political endeavor, not a commercial project, and in that respect it has made a substantial contribution to peace building. Even without knowing the ultimate outcome of the KEDO project, its stabilizing presence has allowed the DPRK and the major powers in the region to begin a process of diplomatic and economic engagement.

Key words: light-water reactors, KEDO, peace building, Turn-Key Contract, U.S.-DPRK relations
Introduction

It is easy to forget the controversy and the challenges faced by the Korean Peninsula Energy Development Organization (KEDO) when it was first created. A product of the October 1994 Agreed Framework between the United States and the Democratic People’s Republic of Korea (DPRK), it was incorporated in March 1995 and began its actual operations four months later with a skeleton staff, temporary office space, and a single telephone line. Its mission was clear: to build two 1,000 MW(e) nuclear power reactors in North Korea and provide 500,000 metric tons of heavy fuel oil annually until the first reactor was completed.¹

Far less clear was how this ambitious goal would be achieved. Diplomatically, the North was the world’s most secretive country, a militaristic, xenophobic “Hermit Kingdom” that was technically still at war with the United States and the Republic of Korea (ROK). Logistically, there were no sea or land transportation routes or communications between the two Koreas to facilitate the light-water reactor (LWR) project. Due to the North’s economic backwardness, KEDO would have to provide everything from the sophisticated nuclear components to the kimchi to feed the South Korean construction workers.

Further, KEDO did not exist in a vacuum, but rather was subject to the often-turbulent strategic environment in Northeast Asia, as well as the domestic politics of its three founding members, the United States, South Korea and Japan. Many in the U.S. Congress, which came under Republican Party control two weeks after the Agreed Framework was signed, voiced serious reservations about the wisdom of the nuclear bargain struck by the Clinton administration. Less vocally, South Korean and Japanese officials also had doubts about whether KEDO could succeed. In addition to the question whether KEDO could surmount the diplomatic, logistical, and political hurdles, it was uncertain how, or even whether, it could raise the funding for this multibillion-dollar enterprise.
The Record So Far: A Glass Half Full . . .

Contrary to this early skepticism, KEDO has not only survived; in some ways it has actually flourished. KEDO and the DPRK have been able to forge a solid working relationship, which has been reflected in the 1995 Supply Agreement and numerous subsequent protocols, memoranda of understanding, and high-level expert agreements that interpret and implement the original commitments set forth in the Agreed Framework. These agreements range from ensuring that all KEDO workers in the DPRK have full diplomatic immunity to wage levels for North Korean workers to technical details of nuclear safety procedures.

Forty nationals from the founding member states and the European Union staff the headquarters office in New York City; they support the more than 1,000 KEDO workers at the LWR construction site at Kumho, on the northeast coast of the Korean peninsula. Construction work on the LWR plants officially started in February 2000 and is moving ahead according to the schedule set out in the December 1999 “Turn-Key Contract” (TKC) between KEDO and KEPCO (Korea Electric Power Company), the prime contractor. Significant progress has been made on the barge docking facility, where major components and supplies will be unloaded, grading of the power plant site, living quarters, and other site infrastructure support. KEDO has also continued to deliver 500,000 metric tons of heavy fuel oil annually to the North, despite the spike in oil prices during the past year.

More important than what KEDO has achieved is what it has prevented. Since 1994, the DPRK has halted activity at the Yongbyon nuclear complex, including a reprocessing facility capable of separating enough fissile material for twenty to forty nuclear bombs per year. Construction of a 600 MW(t) nuclear reactor near Taechon in the northwestern part of the country has ceased. Inspectors from the International Atomic Energy Agency (IAEA) have been allowed continuous access to monitor this “freeze.” To date, there have been no publicly confirmed reports that the North has cheated on this arrangement. In addition, the spent fuel produced by the 30 MW(t) reactor at Yongbyon, containing plutonium sufficient for five or six nuclear bombs, has been canned and also placed under IAEA safeguards. Under the Agreed Framework, the DPRK will have to export this spent
fuel before the first LWR is completed.

The numbers only tell part of the story. Harder to quantify is the influence KEDO has exerted on North Korea through its almost constant interaction. Since 1995, KEDO has been the primary and in some instances the only venue where North Korean officials could talk directly and routinely with their South Korean, American, and Japanese counterparts. The value of this dialogue should not be underestimated. KEDO negotiators consistently have been surprised at the North’s misunderstanding of or outdated knowledge about the way the KEDO member governments operate, and about the basic technical details relating to a nuclear power project. According to one KEDO official, “The number one job in every discussion with the North is to educate them about the way the world works.” Similarly, daily interaction at the Kumho site between South and North Korean construction workers has defeated Pyongyang’s best efforts to insulate at least some of its long-suffering populace from “ideological contamination” from Seoul. And even if the June 2000 North-South summit between ROK President Kim Dae Jung and DPRK Kim Jong Il has not yet delivered the enormous expectations it generated, it is still arguable that this unprecedented meeting would not have taken place without the years of groundwork laid by KEDO.

... Or Half Empty?

But it is also possible to characterize KEDO in a far less positive light, not as the engine of progress on the Korean peninsula, but rather as the Brigadoon of international organizations—a place where time has largely stood still.

It is an open secret even among the North Koreans that the project will not be completed by the 2003 target date specified in the Agreed Framework. The project is as much as seven years behind schedule, but even that projection may be overly optimistic.

While interest among KEDO’s three founding members has waxed and waned since its inception, it now seems to be at an all-time low. Further, KEDO has only attracted two new members since 1997, bringing its total to thirteen, and still does not include
many of the major countries in East Asia.\textsuperscript{5} Aside from the United States, South Korea, and Japan, only two other countries made financial contributions during 2001, and these totaled less than $1 million.\textsuperscript{6} The European Atomic Energy Commission, which joined the KEDO executive board in 1997, did not make any contribution in 2001. This highlights KEDO’s perennial problem of securing funds to finance heavy fuel oil deliveries. These fuel shipments have been late for each of the past five years, thereby harming KEDO’s credibility with the North and undercutting its efforts to have Pyongyang strictly abide by its agreements.

The LWR project was only a part of the Agreed Framework, which envisioned that the United States and the DPRK would gradually normalize diplomatic and economic relations (e.g., Washington would lift trade sanctions and foreign investment barriers). The DPRK also pledged to engage in North-South dialogue. Expectations on this score have been disappointed. The North took six years to hold a summit meeting with the South. Meanwhile, it possesses stockpiles of chemical weapons. It is believed to have pursued a biological warfare program since the 1960s. It has a robust ballistic missile development and export program.\textsuperscript{7} And it has positioned the bulk of its conventional military forces just north of the Demilitarized Zone (DMZ), menacingly close to Seoul.\textsuperscript{8} To be fair, these matters extend well beyond KEDO’s competence or influence. But KEDO’s interaction with the DPRK has not had the beneficial “spillover” effects that some of its advocates initially claimed.

**Future Challenges**

From its earliest days, KEDO has faced a host of what might be termed “internal” and “external” challenges. This remains true today.

**Internal Issues**

The Organization has postponed negotiating a number of the thornier protocol agreements essential to implement the LWR project. The most complicated and time-urgent of these negotiations concerns the nuclear liability protocol, which must establish
a comprehensive, internationally acceptable nuclear liability regime in the DPRK. This will require KEDO to explain how such a regime would operate and then persuade Pyongyang to enact appropriate domestic legislation that will remove from the DPRK operator of the LWR plants all liability from any claims arising from a nuclear incident.

If this hurdle can be surmounted and the project completed, the North will still either have to purchase nuclear liability insurance on the world market or stand behind any nuclear liability from the LWR plants. In the event liability insurance proves unattainable or unaffordable, the DPRK may propose instead that it indemnify KEDO in the event KEDO or its contractors incur expenses because of a nuclear incident. Would the North’s assurances give sufficient comfort to KEDO, its contractors and subcontractors? Significantly, the TKC requires that KEDO provide protection to the prime contractor and subcontractors prior to the date when the first nuclear components are shipped to the DPRK. If such legal and financial protection is not provided to KEPCO’s satisfaction, then it reserves the right to walk away from the LWR project and incur no further liability. KEPCO has signed similar agreements with its subcontractors. In short, the project could fall apart unless the nuclear liability issue is adequately resolved. And all of these nuclear liability pieces must fall into place in relatively short order or else there is a real risk the LWR project may be further delayed.

Another troublesome protocol deals with the schedule for delivering the two LWR plants. This protocol is designed to map out the specific milestones and time frame for the construction of the LWR plants, as well as the steps the DPRK must take for the project to be completed according to the schedule. For the past four years a draft of this protocol has been debated among the KEDO executive board members. A key area of disagreement has been how to handle the timing of the North’s coming into full compliance with its Nuclear Nonproliferation Treaty (NPT)/IAEA safeguards obligations. Some members have argued for adhering to the schedule outlined in the Agreed Framework, which obligates Pyongyang to come into compliance only after KEDO has completed a “significant portion” of the LWR project, i.e., after delivery of the turbine generators but before the delivery of “key nuclear components” such as the
reactor vessel, steam generators and main coolant pumps. Other members have insisted upon "accelerated" compliance to ensure that the project will not be delayed and costs increased during the time the IAEA needs to investigate and analyze the data."

In addition, one of the KEDO executive board members would prefer to present the delivery schedule to the North without any specific dates for fear of Pyongyang's reaction once it is officially presented with a schedule confirming that the reactor project would not be completed by the 2003 target date. The concern here is that the DPRK would then demand compensation from KEDO for the delay in bringing the project on line. Since the KEDO founding charter requires that all decisions must be made by consensus, these internal disagreements mean that this draft protocol has still not been presented to the DPRK.

A third yet-to-be-negotiated protocol addresses nuclear safety issues and the North's regulation of the LWR plants. KEDO has already met with the DPRK regulatory authority to discuss nuclear-related safety issues. But developing a culture of safety in the North will take time; it will take even longer if some KEDO members continue to balk at sharing safety and technical data with Pyongyang. Also, nuclear regulators traditionally have the freedom to visit any part of a nuclear facility and even shut it down on their own authority. Will the KEDO members grant this right to the North, even if, theoretically, it could delay the project further? And if this right is denied, will that compromise safety when the LWR plants are eventually handed over to the DPRK? One possible compromise currently under consideration that could defuse this issue is a "coordinated inspection regime," which would allow routine inspections at regular intervals and ad hoc inspections upon the demand of either party.

Pyongyang would also like to renegotiate a wage agreement that was concluded in 1997 to increase the wages paid for North Korean workers at the site. When KEDO refused to accede to Pyongyang's demands in 1999, Pyongyang pulled half of its labor force from the site. KEDO responded by hiring Uzbek workers as a stopgap measure. But the LWR project will need thousands of skilled and unskilled workers—and it was always anticipated that the North would provide cheap labor to keep down the LWR project price. KEDO continues to hold discus-
sions with the DPRK on this matter.

A potentially much more expensive problem is the need to find a new supplier of the turbine generators for the LWR plants. In 1999, General Electric made known it would not participate in the project, citing in part concerns over nuclear liability. KEDO has identified an alternative supplier, but as of February 2002 a contract has not yet been signed. Some observers believe that this uncertainty over the turbine generators has wasted a year. A change in supplier will also mean redesigning the turbine generator and auxiliary buildings, thus adding to the overall cost of the project.

Finally, funding KEDO's obligations is also a major challenge. According to an executive board resolution implementing the December 1999 TKC, the LWR project will cost $4.6 billion. Of this amount, South Korea agreed to underwrite 70 percent; Japan pledged the yen-equivalent of $1 billion, which translated to approximately 22 percent. (The United States has not contributed any funds to LWR construction.) Left undecided was how KEDO would fill this projected 8-percent shortfall (100 percent less 92 percent). For the past two years, Tokyo has agreed to cover the shortfall by drawing down the necessary funds from its $1-billion commitment. However, Japan has recently stated it will cease doing so after February 2002, preferring instead to pay only 22 percent of KEDO's project costs on an annual basis until its $1-billion commitment is exhausted. At this point, it is unclear how KEDO will secure the necessary funds to cover the disparity between its accounts payable and accounts receivable. Making matters worse is that the $4.6 billion project cost figure is widely considered unrealistic. Most observers place the project's overall cost at an order of magnitude greater, perhaps double the original cost; as the project cost inflates, so too will the amount of funding needed to cover the 8-percent shortfall.

More immediately, finding the funds for heavy fuel oil (HFO) shipments will continue to bedevil KEDO until the first LWR plant is completed (when such shipments will cease, according to the Agreed Framework). HFO prices peaked at $96 million in 2000; depending on the world oil market, they could stay near that level for the foreseeable future. During the Clinton administration, the Republican-led Congress reluctantly appropriated only some of the funds needed for these shipments. However,
early signs suggest that the Bush administration will be much less parsimonious. In 2001, the administration contributed over $70 million to KEDO, most of which was earmarked for HFO.

External Issues

The external problems that complicate KEDO’s work are no less formidable for lying beyond KEDO’s immediate control.

The DPRK is obviously the key external actor. For the past few years, the IAEA has requested that the DPRK come into full compliance with its safeguards obligations, to no avail. Since ensuring the correctness and completeness of all the DPRK’s nuclear materials and facilities with its initial declaration will take three to four years, according to the IAEA’s Director-General, the IAEA has proposed concrete steps Pyongyang could take to preserve nuclear information and generally shorten the verification time-frame. Pyongyang has refused, and cited the Agreed Framework language that links its acceptance of IAEA verification to progress in the implementation of the KEDO project.

Any delay in constructing the LWR plants will increase costs. A delay of three to four years would require cessation of all work and the repatriation of South Korean workers from the site. Moreover, it is likely that the IAEA’s technical analysis of the DPRK nuclear program will be less than one hundred percent conclusive. In other words, even with the North’s full cooperation, there may be uncertainty over how much plutonium Pyongyang has separated that could be used for nuclear bombs, due to incomplete bookkeeping, different accounting practices, and the failure to preserve information. Depending on the amount of technical uncertainty, the KEDO project could be delayed further while the executive board members make a political decision whether or not to proceed.

The DPRK is also going to require new power transmission lines to carry the electricity generated by the two LWR plants. The North’s current grid is in an abysmal state, with frequent brownouts and blackouts throughout the country. Nor can this issue be postponed indefinitely, because of the long lead-time required to secure financing and complete construction. KEDO has been adamant in telling the North Koreans that the electrical grid is their responsibility. In addition to the transmission
lines, the North will need to have in place a reliable source of backup electricity before the LWR plants start up.

Inevitably, the state of North Korea's relations with South Korea will influence KEDO's future, for both good and ill. Will the long-promised rail line be cleared across the DMZ? Will the Kaesong economic zone be developed? Will Pyongyang take steps to encourage South Korean tourism at Mt. Kumgang? Will family exchanges be increased, with the North agreeing to a permanent site where families can meet regularly? Will the South accede to the North's demand for electricity and, if so, will this undermine the rationale for the KEDO project? Will Kim Jong Il make his promised return visit to the South? And can any or all of these steps be taken before the end of Kim Dae Jung's term, or will they become ensnared in the upcoming presidential contest? The questions are easier to pose than the answers.

An additional cross for KEDO to bear is tension between two of its founding members, South Korea and Japan. While KEDO has been exemplary in promoting closer ties between the two countries, recent events are a reminder that slights, both real and perceived, lurk very close to the surface and can flare up at any moment. Last year's publication of school textbooks that whitewash Japan's occupation of Korea during the 1930s and 1940s, and the government's refusal to ban them, caused great consternation in Seoul (and throughout East Asia). A Japanese patrol boat that rammed a Korean fishing vessel in the Sea of Japan in mid-September highlighted an ongoing dispute over fishing rights in the region. A month before, over South Korean objections, Prime Minister Koizumi Junichiro visited the Yasukuni shrine, which memorializes Japanese war dead, including some convicted war criminals. For Koreans suspicious of a possible resurgence of Japanese militarism, Tokyo's recent successful launch of a satellite seemed a precursor to a ballistic missile capability. And even before Koizumi responded to the events of September 11 with offers of military support, many Koreans harbored a deep-seated distrust of Japan's asserting a larger military role for itself in the region.

Finally, U.S. policy toward the DPRK will bear upon KEDO's work. After a six-month review of North Korea policy, the Bush administration came out squarely in favor of continued support for KEDO and for the larger process of engagement
with the DPRK. But there are few illusions about the dangers the North Korean regime presents. In Congressional testimony in March 2001, the Commander-in-Chief of U.S. Forces/Korea, General Thomas Schwartz, stated that during the past year, a time of warmer diplomatic relations between the two Koreas, the North Korean armed forces had gotten “bigger, better, closer and deadlier.” The following month, Pyongyang announced a new defense deal with Moscow to provide more advanced equipment for its million-man army. More recently, in his January 2002 State of the Union Address, President Bush described North Korea as part of an “axis of evil, arming to threaten the peace of the world.” He declared that “the United States of America will not permit the world’s most dangerous regimes to threaten us with the world’s most destructive weapons.”

Still, Secretary of State Colin Powell and other State Department officials have repeatedly stated that the United States will meet with the DPRK anywhere, anytime without preconditions. To date, the DPRK has not taken up Washington’s offer.

Impact of September 11

Even before the events of September 11, 2001, it was unclear whether this lull in U.S.-DPRK diplomacy marked a brief pause between negotiating rounds or the beginning of a longer period of cooler relations. After September 11, that question became moot. For the foreseeable future, the Bush administration’s primary attention will be directed to fighting and winning the “war against terrorism.”

With heightened scrutiny of all terrorist activities, an additional obstacle to U.S.-DPRK negotiations over the non-KEDO aspects of the Agreed Framework is that North Korea remains on the State Department’s list of state sponsors of terrorism. According to the State Department, during the past year the DPRK “continued to provide safe-haven to the Japanese Communist League-Red Army Faction members who participated in the hijacking of a Japanese Airlines flight to North Korea in 1970. Some evidence also suggests that the DPRK may have sold weapons directly or indirectly to terrorist groups during the year.”

This indictment is more complicated than it first appears.
According to some reports, Pyongyang has offered to return the Japanese Red Army members, but Tokyo has not yet agreed to accept them. During 2000, North Korea engaged in three rounds of terrorism talks with the United States, culminating in a joint statement in which "the DPRK reiterated their opposition to terrorism and agreed to support international actions against such activity."

On October 6, 2000, the two sides also issued a joint statement condemning international terrorism and pledging to exchange information to combat terrorism. And after the September 11 events, Pyongyang publicly denounced the terrorist attacks and sent a private message to President Bush pledging its "cooperation" in the fight against terrorism.

Nonetheless, as long as the North remains on the State Department’s terrorism list, it is at least as likely that some members of the Bush administration and Congress may call for stiffer, more punitive measures instead of a new round of diplomatic engagement. Indeed, President Bush’s State of the Union Address, where he publicly identified North Korea as one of three countries that threaten the United States and international peace, indicates a much tougher line toward Pyongyang.

In this environment, the reinforcement of American forces on the Korean peninsula may be misinterpreted by the North and lead to an escalation of military tensions. More probable is that Pyongyang will view the United States as losing interest in Northeast Asia. (An early diplomatic casualty of September 11 was the cancellation of the President’s trip to the ROK and Japan in October, though this was remedied in February 2002.) Under a worst-case scenario, North Korea may take provocative action to compel Washington to pay attention. This may take the form of Pyongyang’s hindering further the work of IAEA inspectors, announcing it will no longer suspend its missile tests, or actually testing one of its ballistic missiles. Even if these more pessimistic scenarios do not develop, September 11 and its ramifications have made KEDO’s job more difficult.

Conclusion

If KEDO were judged on its ability to efficiently manage an international construction project, it would be fortunate to
receive a "gentleman's C." The project is well behind schedule and still must overcome a number of serious legal, engineering, and financial problems before the LWR plants are built. But that may be the wrong way to assess its performance. Fundamentally, KEDO is a political endeavor, not a commercial project. Judging on this basis yields a much different conclusion.

The Agreed Framework nuclear deal, and KEDO, have made the events of the mid-1990s a distant memory. In 1994, the DPRK had removed from its Yongbyon reactor nuclear fuel with enough plutonium for five or six nuclear weapons. It had kicked IAEA inspectors out of the country. Both the DPRK and the United States mobilized troops and reinforced their positions along the DMZ. Many observers believed there was a real chance of a second Korean War.

Today peace has not broken out on the Korean peninsula, but North Korea is no longer so isolated and is opening up slowly to the outside world. Its contacts with South Korea are broader and more sustained than at any time in history. With respect to nuclear matters, Pyongyang has placed the spent fuel from the Yongbyon reactor under international safeguards. Its declared nuclear program remains frozen and under international supervision. Without these measures, a full-fledged North Korean nuclear weapons program could today produce up to fifty-five bombs a year.

Although questions about Pyongyang's hiding weapons-grade plutonium or even a nuclear bomb are far from resolved, KEDO has played a central role in capping the North Korean nuclear threat. Moreover, the successful completion of the KEDO project offers the most practical, peaceful way to answer these questions. But even without knowing the ultimate outcome of the KEDO project, its stabilizing presence has allowed the DPRK and the major powers in the region to begin a process of diplomatic and economic engagement. If this opportunity has not been fully exploited by the DPRK and the major powers, that is hardly KEDO's fault.

Phrased euphemistically, KEDO has been enormously successful in "kicking the can" down the road. Importantly, its past record demonstrates the ability to continue kicking this particular can for the next few years, at least. This contribution should not be underestimated.
So whither KEDO? Years from now, will it be viewed as the prototype to a new type of international organization, one composed of key regional actors dedicated to tackling a single problem? Or will it be seen as a fatally flawed model that woefully miscalculated the perfidy of the North Koreans? No one can say for sure. But this much is certain: For the foreseeable future, KEDO will continue much as it has before—its past achievements minimized, misunderstood, or overlooked; its current good deeds dismissed or taken for granted; and its future prospects uncertain, held hostage to larger political forces.

NOTES


2. In August 1998, news reports about a suspicious facility located at Kumchang-ni led some observers to think it might house a clandestine nuclear facility. U.S. inspections in May 1999 proved this particular fear to be groundless.


4. “A scrutiny of the real state of the LWR construction makes it clear that the LWRs are not likely to be completed by the year 2003 and even by the year 2010...” Korea Central News Agency (KCNA), June 28, 2001.


6. The two countries were Canada and Singapore, which contributed $624,883 and $300,000, respectively. Ibid., p. 16.

7. See Office of the (U.S.) Secretary of Defense, Proliferation: Threat and

8. Many analysts view the DPRK conventional military threat as a lesser concern than the North’s nuclear, chemical, and biological weapons programs and its ballistic missile capabilities. This threat was not placed in the October 1999 report issued by former Secretary of Defense William J. Perry at the request of US Forces/Korea Command. The Perry Report is reprinted in Albright and O’Neill, Solving the North Korean Nuclear Puzzle, pp. 299-313.


10. “The Agency continues to be unable to verify the correctness and completeness of the initial declaration on nuclear material made by the DPRK. And it is therefore unable to conclude that there has been no diversion of nuclear material in the DPRK.” Report by the Director-General, IAEA General Conference, GC(45)/26, August 6, 2001.


12. It is also possible that the KEDO project would not be delayed, but would be terminated. For a comprehensive examination of the verification issue, see Michael May, ed., Verifying the Agreed Framework (Center for Global Security Research/CISAC, April 2001).

13. However, KEDO has informed the DPRK that it is willing to use “its good offices” to assist the DPRK “in its own efforts to obtain through commercial contracts, which include a commercial loan, such power transmission lines and substation equipment as may be needed to upgrade the DPRK electric power grid.” Letter from KEDO Executive Director Stephen W. Bosworth to DPRK Ambassador Ho Jong, December 15, 1995.


16. Ibid.

17. This statement can be found at http://secretary.state.gov/www//briefings/statements/2000/ps001006.html.