

OBSTACLES TO THE KEDO LWR PROJECT

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During the last five years, it has been extremely challenging for KEDO to launch the light water reactor (LWR) project from scratch due to the unfavorable and often hostile political and physical environment in the DPRK. While overcoming the half-century lapse of dialogue with the DPRK and mobilizing political and financial support for the project from its members, KEDO has managed to conclude with the DPRK the LWR Supply Agreement in 1995 and subsequent protocols; it also concluded the Turnkey contract with its prime contractor, the Korea Electric Power Corporation (KEPCO), and completed financial arrangements for the LWR project in early 2000.

The fact that the LWR project is now well under way, however, does not guarantee that the smooth implementation to the end. Many uncertainties resulting from the unique nature of the DPRK and this project still lurk at every stage of the projects implementation. Therefore, the pace of the project is subject to how quickly these uncertainties are reduced. Four different imminent and potential obstacles to the project are defined and analyzed in this paper: the DPRK's cooperation with the project, non-proliferation obligations, readiness to receive the LWR plants, and support from KEDO executive board members. An analysis of these obstacles shows that the pace of the LWR project will ultimately be determined by the

DPRK's political credit, international openness and economic capability. This paper will attempt to help us not only understand the political characteristics of the project but also better prepare for any future contingencies.

Some of these are serious matters with political, security and legal implications, while others are financial and technical ones. None of these should be taken lightly, however, since any of them has potential to disrupt the smooth implementation of the project. On the other hand, it is also true that none of these obstacles is insurmountable as long as each concerned party feels that its best interests are being served by abiding by the basic principles prescribed in the 1994 Agreed Framework.

I. Introduction

In accordance with the 1994 Agreed Framework agreed between the United States and the Democratic People's Republic of Korea (DPRK), the Korean Peninsula Energy Development Organization (KEDO) was established on March 9, 1995 to finance and construct in the DPRK two light-water nuclear reactors (LWR). Pending the completion of the first reactor, KEDO will deliver to the DPRK 500,000 metric tons of heavy fuel oil annually. This paper, however, will focus on the LWR project since the heavy fuel project has only minimal policy implications for concerned countries; and the only hurdle to this project is financing. Through this unusual experiment to replace a suspicious nuclear weapons program with proliferation-resistant commercial nuclear reactors, KEDO has successfully defused the so-called North Korea nuclear crisis of 1993 and 1994. KEDO has also been a precursor to many subsequent political dialogues with the DPRK that culminated with the June of 2000 South-North Summit, which is

contributing to opening a post-cold war era on the Korean Peninsula.

Nonetheless KEDO's *raison d'être* was not taken for granted as the Agreed Framework has often been criticized as being a concession to the DPRK's nuclear threat. The LWR project was considered, in the absence of a better idea, as an improvised alternative that might cease at any time due to the DPRK seemingly imminent collapse. The DPRK's position toward KEDO has also been marked with suspicion and non-cooperation. Consequently, during the last five years, it has been extremely challenging for KEDO to launch the LWR project from scratch in the midst of such an unfavorable political and physical environment. The half-century lapse in dialogue with the DPRK poses a communication barrier at every stage of the project. KEDO has struggled to mobilize and maintain political and financial support for the project from its member governments and their publics.

Despite these difficulties, KEDO has managed not only to conclude with the DPRK the LWR Supply Agreement in 1995 and subsequent protocols, but also to conclude the Turnkey contract with its prime contractor, the Korea Electric Power Corporation (KEPCO), and complete financial arrangements for the LWR project in early 2000. Consequently, the LWR project is now on track with over 800 KEDO workers in addition to more than 100 DPRK workers at the construction site in Kumho, DPRK. KEDO also succeeded in establishing a working relationship with the DPRK side both at the negotiation table and the construction site. In addition, it should be noted that it would have been impossible to implement the project this far without the DPRK's cooperation, though limited, for the project.

The fact that the LWR project is well under way now, however, does not guarantee its smooth implementation. Too many uncertainties arising from the unique nature of the DPRK as well as the project still lurk at every stage of the project. Assuming that all concerned parties to the LWR project maintain their interests in the project, its expeditious implementation will largely depend on to what level these

uncertainties are reduced. Here four kinds of imminent and potential obstacles to the project are defined and analyzed: the DPRK's cooperation with the project, non-proliferation obligations, readiness to receive the LWR plants, and support from KEDO executive board members. An analysis of the nature of these obstacles and their prospects would help us not only understand the political characteristics of the project but also better prepare for the future contingencies. Before delving into this analysis, a brief investigation of the current status of the KEDO organization and its LWR activities is needed.

II. Current Status of KEDO Organization and the LWR Project

1. Organization

KEDO was formally incorporated on March 9, 1995 when the Governments of the ROK, the U.S. and Japan signed the Agreement on the Establishment of KEDO. The KEDO secretariat is now composed of 43 professional and support staff, including the American Executive Director and one Korean and one Japanese Deputy Executive Directors. In accordance with the Establishment Agreement, nationals of the Executive Board members are fairly represented among the professional staff. There are seven divisions in the Secretariat: Policy and DPRK Affairs, Project Operation, Nuclear Safety and Quality Assurance, Legal Affairs, Financing and Heavy Fuel Oil, Public and External Promotion and Support, and General Affairs.

KEDO opened an office on July 28, 1997 at the LWR project site in Kumho, DPRK. Seven KEDO staffers reside at the Kumho site to perform the following functions: (1) to interface with the DPRK to ensure the smooth and expeditious implementation of the LWR project; (2) to maintain order at the site, ensure the safety of all KEDO personnel and exercise consular protection functions on behalf of

KEDO personnel in the DPRK; and (3) to oversee the day-to-day implementation of the project, including coordination of contracts between KEDO's contractors and DPRK subcontractors.

KEDO's highest authority lies in the Executive Board, comprising representatives from three original KEDO members — Governments of the ROK, US, and Japan — and the European Atomic Energy Community (EURATOM), which joined KEDO on July 31, 1997 on behalf of the European Union. The Executive Board convenes at the request of its members and the Executive Director makes decisions and sets guidelines on all major issues, from appointing the executive officers of the Secretariat, and financing all KEDO operations to the approval of the negotiation plans and agreements with the DPRK. The Chairman of the Executive Board is selected by the board from among its own members and serves a two-year term. Currently, Ambassador Chang Sun Sup, the ROK Representative to the KEDO Executive Board, serves as the Chairman of the board.

2. Status of the LWR Project

After conducting surveys at the Kumho site for two years beginning in August of 1995, KEDO concluded in August of 1997 a Preliminary Works Contract (PWC) with KEPCO, in the amount of U.S. \$45 million to cover a one-year construction period. The PWC had been a transitional step to commence early site work such as grading and infrastructure construction until such as time as the Turnkey Contract (TKC) was concluded.

Twenty-eight months after the initiation of the PWC and nine amendments later, the 800-page long TKC was signed by KEDO and KEPCO on December 15, 1999, at a price within the \$4.6 billion budget limit set by the KEDO Executive Board. The financial arrangements for the project were concluded in early 2000, thereby allowing the LWR construction work to be fully implemented. Considering the complexi-

ty of resolving all the issues necessary for financing and exporting nuclear power plants to a country like North Korea, the progress thus far could be considered an achievement in and of itself. Full-scale construction work finally started 5 years and 8 months after the U.S. promised in the 1994 Agreed Framework to “make arrangements for the provision to the DPRK of a light-water reactor project ... by a target date of 2003.”

As of October 2000, about 800 South Korean workers are working at the site together with about 100 North Koreans. Within a year this number will double and a few years later it will grow to nearly 10,000 South and North Korean workers combined. In addition, several hundreds pieces of heavy equipment and vehicles brought to the site by KEDO contractors from South Korea are working in what is otherwise a typical small rural town in the North.

KEPCO removed more than 4 million cubic meters of rock and soil from the mountain where the LWR plant will be located. Recently, work has begun on the construction of the intake breakwater and barge docking facility that will form the intake channel for cooling water and provide a safe docking facility for freight barges and passenger boats. KEPCO and its subcontractors have transformed a wooded field into a gigantic construction site. In addition to building temporary container housing and some permanent housing for its workers, they also established construction offices, medical facilities, dining and recreational facilities, banking offices, and other structures necessary to support the LWR project. KEDO has further established an independent supply of reliable electricity, water and communications. As the site is maintained as an independent town, it imports virtually everything required for working and living, including construction materials and personal consumables.

Considering that the target completion date of the LWR project is only three years away, progress has been slower than one had expected. For those who thought this project an impossible one, however, the

progress made so far is a considerable feat. This is especially true since both KEDO and the DPRK have been treading in uncharted territory and full of obstacles, intended and unintended as well as expected and unexpected. In the following paper, four imminent and potential obstacles that KEDO may encounter in coming years have been identified and will be discussed. To the extent that both KEDO and the DPRK learn how to remove, avoid and overcome these obstacles, the pace of the project will be determined.

III. Obstacles to the KEDO LWR Project

1. DPRK's Cooperation for the Project

Building a nuclear power plant is not an easy task, taking 7 to 10 years to complete, even in South Korea or Japan where most of the social and physical infrastructure for a project of this magnitude is present. From the beginning, therefore, the full cooperation of the DPRK has been imperative and critical for the smooth and expeditious implementation of the LWR project. The types and levels of cooperation needed vary from local to national and from functional to political in accordance with the types of obstacles faced. During the last five years, both KEDO and the DPRK have worked jointly to meet various challenges and often succeeded in finding mutually acceptable solutions.

In order to begin construction on the LWR plants, the DPRK took numerous unprecedented measures such as accepting the Korean standard nuclear reactors and allowing many South Koreans to reside in and travel to and from the construction site in its northeastern coastal area. The DPRK also opened the beach area of the construction site and removed various military barriers that were placed there; allowed free communication between the site and the South; opened

several sea transportation routes; and provided diplomatic protection to all KEDO personnel working in the DPRK.

Most of these measures are usual ones necessary for building nuclear power plants. Something ordinary and normal in other parts of the world, however, can be considered special in the DPRK. Considering the closed, exclusive and defensive nature of the DPRK regime to outsiders in the early 1990s, these measures taken for KEDO's benefit by the DPRK were nothing less than extraordinary. These moves are seen as reflecting the DPRK's position toward the KEDO project.

From time to time, however, the DPRK's cooperation has been insufficient to insure uninterrupted and smooth construction work. Despite its high stake in the completion of the project, the DPRK often fails to cooperate by adhering to self-imposed regulations and principles to the detriment to the project. In the following discussion, a few areas where the DPRK's cooperation is most needed are discussed in detail.

First of all, South Korean personnel living and working together with their DPRK counterparts turned out to be an enormously difficult task. Due to cultural and physical differences between DPRK and KEDO personnel, conflicts and confrontations were frequent in the early years. Some actions that might be meaningless in other countries such as throwing away a newspaper with photos of national leaders and making jokes caused great commotion and invited protests from the DPRK. Some cases even resulted in the temporary suspension of work at the site. It took years for KEDO personnel to learn how politically sensitive North Koreans are on some specific issues. KEDO employees were all instructed not to take any action that could be perceived as being provocative by the DPRK side. Only after paying a high price and passing through a long learning process, did both sides learn to not only take into account the other's position before acting, but also to keep accidents at a personal or local level from escalating into incidents on a national or diplomatic level. There always remains

the possibility, however, that such cultural differences could interrupt the good relations enjoyed by the two sides.

Second, a more serious issue is the DPRK's attitude towards international agreements and commercial contracts, or more precisely, its arbitrary interpretation of and lax sense of obligations to these agreements. This might be attributed to the politicized nature of its society or lack of exposure to international law and modern market economies.

Anyone familiar with the DPRK might know that concluding, interpreting and implementing agreements are three entirely separate issues. Implementation has been no less difficult than negotiating agreements. This can be overcome, however, with confidence and credit. KEDO's example demonstrates that it takes time to accumulate credit from the DPRK. In its early days, KEDO worked hard to prove not only by words but also by deeds that its mission in the DPRK was not to pursue an "impure political conspiracy" against the North, but rather to construct nuclear power plants and deliver heavy fuel oil. Despite the political underpinning of the KEDO projects, KEDO had to reinforce its claim everyday that its missions were purely technical ones and any other political considerations should not stand in the way of the "smooth and expeditious implementation" of such missions. Here are two examples that show how the DPRK treats agreements and contracts; incidents that may recur at anytime in the future.

As reported in the media recently, the DPRK has been demanding manifold wage increase for its unskilled work force and refusing to provide additional workers to KEDO since mid-1999. The DPRK even withdrew half of its unskilled workforce, 100 persons, when its demands were not met. In order to keep up with the work schedule, KEPCO had to bring in extra workers from the South at a higher cost to KEDO to fill positions that should have been filled with an additional 600 DPRK workers. This case poses a serious question to the future of the project not only because of the imminent damage to the progress of

the project due to increased labor costs and possible schedule delays, but also because of the DPRK's attitude towards agreements and contracts.

In the LWR Supply Agreement and related protocols, the DPRK agreed to provide KEDO with labor "to the extent possible at a fair price." Later, the DPRK side agreed in a commercial service contract with KEPCO to provide unskilled workers at a monthly wage of 110 US dollars. The DPRK now reopened this case and claimed that \$110 a month was not a "fair price." It argued that the fair price should include additional direct and indirect compensation that had been missing from the beginning.

Most experts agree, however, that the agreed wage far exceeds the average wage paid to North Korean workers for similar work and is generous when compared to the wages in the Rajin-Sonbong Free Trade Zone. They also found that the current wage rate is higher than that in most other parts of the world where the per capita GNP is comparable to, or even higher than, that of the DPRK. An expert on the subject also voiced the opinion that higher wage rates than the current one may seriously hurt the DPRK's effort to bring in foreign capital, as investors could find cheaper and more cooperative labor elsewhere. In fact, the DPRK might lose the only incentive it possesses to foreign investors: its cheap labor.

Though both sides have met a few times to resolve this labor issue, so far they could not narrow their differences. With strong commitments to the project from both sides, however, they will be able to overcome this deadlock and find a solution sometime soon.

Besides the labor issue, transportation and telecommunication issues also require the DPRK's full cooperation. Cooperation from the DPRK is two-fold: one is to implement agreements already in place, and the other is to show flexibility in order to handle unexpected transportation and telecommunication needs. The DPRK has already taken numerous measures opening the site to KEDO personnel in accordance

with related protocols on transportation and telecommunications. In view of the DPRK's past attitude towards outsiders, and especially South Koreans, all these measures are extraordinary ones. These steps taken so far, however, fail to meet the ever-increasing communications and transportation demands between the site and the South as the construction work expands.

There are some measures that the DPRK failed to implement, although they were agreed upon in the protocols, citing either the slow pace of construction work or grave security concerns as reasons for not following through on their obligations. On the other hand, the DPRK took the extra measure of allowing the operation of fast passenger-cargo boats between the site and the South that would shorten the travel time from two days to five hours, though this was not in the agreements. As the pace of construction work accelerates, hundreds of KEDO personnel a month must travel to and from the Kumho site as quickly as possible and thousands of pages of design drawings must be exchanged between the site and Seoul offices almost instantly. Despite minor bottlenecks caused by the DPRK's current lack of cooperation, it is too early to call it a total disaster. Less than full cooperation from the DPRK on these practical demands, however, would result in schedule delays and cost increases.

On the other hand, it should be noted that the DPRK has gradually shown its willingness to accept KEDO as its partner in the project and, though selectively, and to the extent possible, cooperate in an effort to meet KEDO's demands. Considering the half-century long lapse of contacts between the two, a five-year trial and error period should be considered rather brief. Although KEDO projects are still in the early stages, the five years since the creation of KEDO have not been a complete waste of time. As the DPRK begins to slowly recognize that the pace of construction work is closely related to its willingness to accommodate the practical needs of the project and to thoroughly implement the agreements, one should expect a more positive attitude

from the DPRK toward this project and better cooperation in the future. In addition, KEDO may have to reinvent itself by learning from its own experiences in order to complete its mission.

2. DPRK's Non-proliferation Obligations

In the mid- to long-term, the DPRK's compliance or non-compliance with its nonproliferation obligations will become a key factor to the success of the LWR project. A few nonproliferation obligations in the Agreed Framework, such as the freeze on the DPRK's graphite moderated reactors and related facilities and sealing and storage of spent fuel rods from the 5MW reactor, are being implemented satisfactorily. What appears most critical will be the future inspection of the frozen 5 MW reactor and related core nuclear facilities such as the radioactive waste storage tank and the reprocessing facility located in Youngbyon, DPRK. Two questions are at issue here: One is over the DPRK's acceptance of limited safeguards obligations on these frozen nuclear facilities until the delivery of key nuclear components; the other is the DPRK's acceptance of full safeguards measures before the delivery of key nuclear components.

On the first issue, the IAEA has reported annually to the United Nations on the DPRK's non-compliance regarding its safeguards obligations under the Safeguard Agreement. For example, in an attempt to make inspections to preserve information to verify the correctness and completeness of North Korea's initial declaration, the IAEA demanded in 1996 that the DPRK accept inspection measures such as: (1) measurement of irradiated fuel rods preserved in the storage pool, (2) installation of monitoring equipment at nuclear waste tanks, (3) turning over the operating records of the 5 MW reactor and plutonium production to the IAEA, (4) installation of sensors at the radiochemical laboratory, and (5) location of key nuclear components for the 50 MW and 200 MW reactors.

Despite repeated demands, which has been made at periodic meetings between the IAEA and the DPRK two or three times a year since 1995, none of the above requests has been accepted by the North. North Korea insisted that it should not be bound by the Safeguards Agreement with the IAEA but rather by the Agreed Framework with the U.S. In accordance with the Framework, North Korea argues that random and routine inspections would be permitted only to facilities not subject to the freeze. Again, quoting the Agreed Framework, the DPRK argues that the IAEA can only “monitor” the frozen nuclear facilities in question.

Though this noncompliance issue is being taken very seriously by the IAEA, most concerned countries like the U.S., South Korea and Japan seem to be content with the current situation. As long as the DPRK maintains the nuclear freeze and the IAEA confirms this, none seems to be willing to challenge the DPRK at this stage. They are ready to wait until full and unlimited inspections are possible. This may come earlier than expected. Recently, on November 6, 2000, the Director General of the International Atomic Energy Agency (IAEA), Mohamed ElBaradei, declared in an address to the United Nations that inspection of DPRK nuclear facilities should begin immediately since the Agency would need “three to four years for a full assessment, verification of nuclear material” in the DPRK. This statement was made in accordance with Paragraph 3, Article IV of the Agreed Framework stipulating the DPRK’s obligation as follows:

When a significant portion of the LWR project is completed, but before the delivery of key nuclear components, the DPRK will come into full compliance with its safeguard agreement with the IAEA (INFCIRC.403), including taking all steps that may be deemed necessary by the IAEA, following consultations with the Agency with regard to verifying the accuracy and completeness of the DPRK’s initial report on all nuclear material in the DPRK.

Assuming that the delivery of key nuclear components to the DPRK may occur in five years and that the accounting of all nuclear material may take longer than in other cases due to its contentious nature, it would not be unusual for the IAEA to demand immediate inspections of the North's frozen nuclear facilities. No one expects, however, that the DPRK will give in to the IAEA's demands for unlimited access to all DPRK nuclear facilities, reported or not, without resistance. Since the DPRK will not pay heed to the IAEA, the U.S. may have to intervene to negotiate with the DPRK on the timing and extent of inspections of the frozen nuclear facilities before it becomes too late.

The prospects that this issue will be resolved easily are not hopeful. Some have observed that the nuclear ambiguity resulting from the obstruction of access to the DPRK's past nuclear history and critical nuclear facilities was its best leverage against the U.S. The KEDO project can proceed while disputes on this are under way. However, what would happen if the negotiations between the U.S. and the DPRK drag on too long for the IAEA to complete its accounting of the DPRK's nuclear material before the delivery of key nuclear components? Still worse, after inspections, what if the IAEA reports either a failure to account for all the nuclear material or further discrepancies between the initial report and the result of inspections are found? Any of these scenarios has the potential to seriously disrupt the implementation of the LWR project and to lead to another open-ended nuclear crisis similar to one in 1994. Therefore, this question appears to be one of the most critical issues determining not only the future of the LWR project but also the Agreed Framework itself.

Since no one in the region wants the recurrence of such a crisis, however, all concerned parties should be able to find a solution in the end. If the recent political developments surrounding the Korean Peninsula and especially the DPRK's vigorous approach to the international community continue, the chances for resolving this issue in time would also increase.

3. DPRK's Readiness to Receive LWR plants

Is the DPRK ready to receive, use and operate the LWR-based nuclear plants properly and safely in accordance with international legal standards and practices? In concrete terms, does the DPRK maintain internationally acceptable nuclear liability and safety regimes for the LWR plants? If not, will it be fully prepared for these requirements when necessary? In addition, will the DPRK's power transmission and distribution system be safe and sturdy enough to handle the new LWR plants? Most experts on North Korea are not certain about this. The lack of available information and statistics on the DPRK's nuclear liability and safety regimes and its electricity generation, transmission and distribution system adds to this suspicion.

Though some of these problems are not as pressing as other ones such as the labor, telecommunication and transportation issues, they might become serious impediments to the project over time. Uncertainties about the DPRK's nuclear liability and safety regimes tend to make the contractors hesitant about participating in the KEDO project unless their exposure to this unusual risk is fully covered by KEDO and its members rather than the DPRK.

In the 1995 LWR Supply Agreement with KEDO, the DPRK promised to ensure that a legal and financial mechanism would be available for meeting claims for damages in the event of a nuclear accident. In accordance with international practice, the DPRK also ensures that this legal mechanism shall include the channeling of liability in the event of a nuclear incident to its operator on the basis of absolute liability and that the operator is able to satisfy such liabilities. In order to keep these promises, the DPRK should enact a domestic nuclear liability regime, enter into an indemnity agreement with KEDO and participate in an international insurance program as well.

There is no question about the DPRK's intention to fulfill all of these requirements. However, no one will be certain about the DPRK's

capability to implement these requirements, especially ones with financial implications, both imminent and potential. For example, is the DPRK going to participate in a nuclear liability insurance whose premium might cost more than several million dollars a year? The nuclear liability insurance program might ask for a higher premium due to the DPRK's higher country risk and the uncertainty regarding its safety system. Still worse, commercial companies might even refuse to sell the insurance at all or ask for a prohibitively higher premium. In addition, participation in the international legal regime by the DPRK is also not automatically guaranteed unless the DPRK's overall performance improves.

In this regard, former KEDO General Counsel Mitchell Reiss noted in his testimony to a U.S. Congressional hearing that the nuclear liability issue was one of the most urgent issues that should be resolved (Reiss, 2000). If not, Reiss predicted that this would delay the project and accrue significant additional cost. According to him, KEDO needs to reach an agreement with the prime contractor, KEPCO, that is acceptable to the subcontractors on nuclear liability for the LWR project. If certain subcontractors decide not to participate in the project because of the nuclear liability issue, then Reiss observes that the entire project will be put at risk, or at a minimum, suffer additional delays and costs.

Another serious problem that might occur at a later stage is the DPRK's physical readiness to accept the LWR plants. It is a well-known technical fact that to maintain stability of the entire power system the power generation capacity of one plant should not exceed 10 percent of total power generation connected through a regional or national power grid. Though the exact amount of total power generation in the DPRK is not known to the outside world, one can easily assess that the DPRK does not meet this criterion. According to ROK Unification Ministry statistics, the DPRK's power generation capacity amounts to about 7,247 MW as of 1994 and the actual power genera-

tion to a mere 32 percent of the capacity, or 2,310 MW. Following these statistics, one unit of the LWR could produce as much as about 23 percent of the total actual power generation of the DPRK. In this case, any disruption of power generation by one LWR unit could heavily overload and thus seriously destabilize and damage the rest of the DPRK's power system. This could be even worse if the DPRK's national power grid is not in place.

In order to meet these technical demands, the DPRK has to keep building more power plants and connect them to a solid national power grid system. Considering that the DPRK's economy has been in a decline for the last ten years, it is not difficult to guess that it cannot meet these demands on its own. International financial institutions such as the Asian Development Bank and the World Bank could be of help to the DPRK, but at a cost. While ascertaining that it is the DPRK's responsibility to upgrade its power distribution system, KEDO once expressed its willingness to provide its good offices if the former sought international financing. However, most international financial institutions have their own lending requirements such as statistical transparency, accuracy and accountability by the borrowers that the DPRK might find not easy to comply with at the moment.

A solution to this quandary could be to connect the DPRK's power grids to either South Korea or China, though this might pose other political and technical problems. In this case, the DPRK would be able to not only secure the stability of its power system but also earn foreign currency by selling electricity. More plausibly, the DPRK might directly ask the South for assistance to overhaul and upgrade its power system as the relations between the two Koreas further progress. In either case, the progress of the LWR project is ultimately subject to the DPRK's overall performance, both economic and political, that can be measured in the terms of country risk and its acceptance to international society.

4. Supports from KEDO EB Members

It is not difficult to imagine that coordinating KEDO's four Executive Board members with disparate political interests and distinctive decision making processes can be often more challenging than working with the DPRK. Despite their common goal of preventing nuclear proliferation and maintaining peace and stability on the Korean Peninsula, KEDO members have different views on how to achieve these goals. Since the KEDO Establishment Agreement endows KEDO's three original members, South Korea, Japan and the U.S., with veto power, each of them can cripple the LWR project as they have done when they were provoked or threatened by the DPRK.

Previously there were two political crises that tested the Agreed Framework and almost suspended the LWR project: the infiltration of a DPRK submarine into the South Korean shore in September 1996 and a DPRK missile launch in August of 1998. Though none of the related parties declared that they would withdraw their support and walk away from the KEDO projects, these two incidents eroded domestic public support within South Korea and Japan for the KEDO projects. As a result, negotiations among KEDO members on financing as well as the construction pace at the site were significantly slowed at the time. These cases show how important it is to secure and maintain public support for the project in order to keep up the pace of the project. They also show that any provocations by the DPRK, planned or not, directly contribute to the reduction of public support.

The most serious repercussion from a lack of public support for the project appears to be none other than either non- or delayed decisions on financing issues. The fact that it took almost five years from Seoul and Tokyo's initial commitments to the LWR project to the completion of financing arrangements testifies to the difficulty of securing public support, as represented often by the legislature and the media, for the project. Initially at the time of concluding the Agreed Framework in

1994, South Korea pledged to play a “central role” and Japan a “significant role” in financing the LWR project. Then, it was not until late 1997 that people began to realize that the central role meant financing 70% of the project and the significant role one billion dollars.

One year later, in November 1998, KEDO finally adopted a resolution, which determined the principle cost sharing of the LWR project, with a budget estimated at \$4.6 billion, among Executive Board members. Following this guideline, KEDO signed financing agreements with Japan to borrow 116.5 billion yen, equivalent to 1 billion US dollars, and with South Korea to provide 70 percent of the project’s actual cost, in May and July of 1999, respectively. By August of 1999, both financing agreements became effective. Within the framework of these governmental umbrella agreements, KEDO began negotiations to conclude commercial loan agreements with the Korea Export-Import Bank and the Japanese Bank for International Cooperation. After numerous negotiations, the loan agreements were finally signed on December 15, 1999 and January 31, 2000 respectively. As these financing commitments were the best they could get, the Executive Board members decided to leave the differences between the contributions and the actual cost of the project an open-ended question to be dealt with later under U.S. leadership.

In summary, coordination and cooperation among the four EB members for the LWR project has never been easy. Despite their decisions to participate in the project, the EB members and their public have always been less than enthusiastic partly due to the hostile nature of the DPRK. Again, if the recent political developments surrounding the Korean Peninsula and especially the DPRK’s vigorous approach to the international community continue, the EB members and their public will become more supportive of the project.

IV. Conclusion

Despite a slow start and numerous hurdles along the way, KEDO's LWR construction project is on track and proceeding as quickly as could be hoped. The progress made so far, however, will not permit KEDO to meet the Agreed Framework's completion target year of 2003. Nonetheless, it is a remarkable achievement that the LWR project has overcome one roadblock after another during the last five years and is currently accelerating the pace of its work. It is well known that, from the beginning, several DPRK experts believed that this project would be impossible, considering the political, financial, technical and legal barriers to a project of this complexity and size. Some experts even said that the LWR construction process would outlive the DPRK itself.

During the last five years, all participating parties to the LWR project, including the KEDO Secretariat, KEDO EB members and the DPRK, have worked very hard not only to keep this project afloat during times of crisis, but also to make progress when the situation permitted. Seoul, Tokyo and Washington have been handicapped with less than full support for the LWR project from their people and legislatures. Despite such difficulties, however, their governments have done their best to meet their political, financial and technical obligations and responsibilities. Overcoming indifference and antipathy to the KEDO project within KEDO EB member countries, KEDO finally succeeded in concluding the LWR construction turnkey contract with its prime contractor, KEPCO, in December of 1999 and completing financial arrangements for the project in early 2000.

Despite these limited successes, there are still many obstacles, both imminent and potential, to the successful implementation of the LWR project as has been the case in the last five years of KEDO's operation. Some of these are serious matters with political, security and legal implications, while others are simply financial ones. None of these

should be taken lightly, however, since all of them have potential to disrupt the smooth implementation of the project. As discussed before, the pace of the LWR project will be ultimately determined by the DPRK's political credit, international openness and economic capability, without which KEDO members' support for the project may dissipate in the long run.

On the other hand, it is also true to say that none of these obstacles is insurmountable as long as each concerned party believes that its best interests are being met by abiding by the basic principles prescribed in the 1994 Agreed Framework. The LWR project is not only one of the key elements of the Framework for the time being; it is also a litmus test against which both the DPRK and KEDO judge the implementation of the Framework.

At this stage, it is too early to call the LWR project a success or a failure. If the processes of the project are more important than the final results, something we can only judge in the years to come, one could say that the KEDO LWR project has been a success in keeping the DPRK's nuclear freeze in place; keeping the LWR construction work afloat; becoming the first case of an international project of this magnitude in the DPRK; maintaining a South Korean presence in the North; and finally becoming the precursor to all the following political events culminating in the June 2000 South-North summit.

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