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U.S.-DPRK EDUCATIONAL EXCHANGES: ASSESSMENT AND FUTURE STRATEGY

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INTRODUCTION

U.S.-DPRK EDUCATIONAL EXCHANGES: ASSESSMENT AND FUTURE STRATEGY

Karin J. Lee and Gi-Wook Shin[1]

> One of the myths of our times is that relations between countries are principally a function of government policy and that diplomacy is exclusively a government-to-government dialogue. Actually, it is businessmen and women, unelected people of good will—be they artists or scientists, athletes, students or scholars—who are more central to defining the tone of relations between states than public officials. Cultural diplomacy generally precedes and increasingly supersedes government-to-government relations.
>
> —James A. Leach, Chairman, The National Endowment for the Humanities[2]

Of all the countries in the world, the Democratic People's Republic of Korea (DPRK or North Korea) is the one with which the United States has the least amount of official contact. Nonetheless, U.S. civil society has developed a number of ways for U.S. and North Korean citizens to interact. These include friendship organizations, non-governmental organization (NGO) activities, tourism, and academic and professional exchanges.

Broadly used, the term "exchanges" can be used to describe any sort of non-governmental or non-official interaction between or among people from the two countries: dialogue on security issues,[3] cultural exchanges (music, sports, cinema, photography, art), and educational exchanges. U.S. individuals and institutions pursue such activities for a variety of reasons and with a variety of objectives. These include increasing the well-being of the North Korean people, providing a means of communication between the DPRK and the United States outside of government channels, contributing to stabilizing relationships in the region, and advancing knowledge in academic fields. These exchanges take place in the DPRK, in the United States, and in third countries.

This chapter evaluates the future prospects for academic exchanges (a subset of educational exchanges) between the DPRK and the United States against the backdrop of DPRK educational exchanges with the rest of the

world. The definition of academic exchange programs will be discussed further below; but the simplest form of an academic exchange involves the transfer of people or information from one university or college to another with the explicit intent of furthering the sharing of information in a fairly open fashion; an academic exchange involves academics on both sides.

Although North Koreans participate in academic exchanges with many countries, especially in Asia and Europe, the United States has made only limited forays into true academic exchanges with the DPRK. NGO-driven educational exchange programs have incorporated U.S. academic institutions to assist in delivering programs, provide professional counsel on scientific concerns and offer technical workshops and higher level training. Because so many interactions between U.S. academics and the DPRK have involved U.S. NGOs, this chapter describes the history of U.S. NGO-university collaboration, which has been successful in terms of knowledge sharing. However, as will also be described, NGO educational exchanges have been less successful in promoting academic exchanges. The chapter explores constraints to implementing all types of knowledge sharing exchanges (most constraints are universal) as well as challenges faced exclusively by academic institutions. The chapter concludes with recommendations for overcoming or mitigating these limitations as well as suggestions for future directions.

The core of the chapter is an examination of nine case studies, seven of which draw heavily on chapters in this book written by the practitioners themselves for the purpose of this project. They were first presented at a workshop held at the Walter H. Shorenstein Asia-Pacific Research Center at Stanford University on November 5, 2010. We are deeply grateful to the authors of those papers, as well as to the authors of the analytical papers produced for this project. At the same time, we would like to emphasize that the conclusions drawn in this chapter are not necessarily shared by all of the authors or participants.

The geopolitical environment has at times deeply affected U.S.-DPRK civil society interactions. Since May 2010, when the Joint Investigation Group headed by the ROK (South Korea, or ROK) government came to the conclusion that the DPRK was responsible for sinking the South Korean navy corvette *Cheonan*, educational exchanges in the United States have been on hold. At the time that this introduction was written, the United States had not issued any visas to North Korean humanitarian or educational delegations since the sinking of the *Cheonan,* nor permitted North Koreans affiliated with the DPRK Mission to the United Nations in New York to travel beyond the 25 miles allowed by their visas.

In this environment, it is difficult not only to develop new programs but even to move forward with existing ones. The political atmosphere diminishes the constituency for DPRK programming and has a particularly negative impact on funding. The authors hope that this chapter will contribute to a

delinking of educational exchanges from such political events.

Overview

This section outlines the scope and purposes of educational exchanges and examines some of the perennial barriers to success.

Defining Educational Exchanges

Educational exchanges with the DPRK may be divided into several categories. The most basic are technical exchanges or technical assistance, which spring organically from the demands of in-country programming and address topics such as agricultural production, food security and medical needs. Such exchanges tend to be focused on improving project implementation. There are also exchanges on topics independent from these sorts of NGO in-country projects; these exchanges might address topics such as law, economics, language and environmental conservation.

As noted above, the most basic kind of "academic exchange" is the exchange of information between two academics for the purpose of expanding academic knowledge. In-depth educational exchange programs include extended study and research in both countries and extensive contact between professors, students, and administrators at universities in both countries. A common goal for U.S. universities is matriculation in degree programs in both countries, collaborative research, and multiple multi-level exchanges in both directions. This chapter will examine and compare U.S -DPRK academic exchanges with other types of educational exchanges in an attempt to evaluate the prospects for academic exchanges.

Most U.S. practitioners emphasize the two-way nature of educational exchanges at all levels; the aim is not simply to extract information or transfer it in only one direction. At a 2007 workshop, practitioners chose to use the phrase "knowledge sharing" to capture this mutual process:

> [Effective] knowledge sharing requires patience and willingness on both sides to engage in mutual learning. While international partners may believe that the DPRK has much to learn from the outside world that will help them address many of the challenges they face, they also need to understand and learn about the North Korean context. This context includes their existing knowledge, personal experience and beliefs about the world, and of course domestic political considerations and international security fears.[4]

Thus, even in the most basic technical exchange program, U.S. experts expect to gain knowledge about North Korean practices and context. Furthermore, in some fields North Koreans are quite advanced. As Stuart Thorson notes,

> These exchanges are not merely information transfers from the United States to the DPRK. Learning takes place in both directions. As Chan Mo Park (a

> computer scientist and past president of South Korea's elite Pohang University of Science and Technology) recently noted North Korea has solid expertise in computer algorithms and software development. Collaborations in these areas can be win-win for both sides.[5]

Why Organize Educational Exchanges?

Given the variety of practitioners who engage in knowledge sharing with the DPRK, it is difficult and perhaps impossible to generalize the motives and objectives of U.S. practitioners. Summarizing, Edward Reed states, "The aim of most U.S. non-governmental exchange programs with North Korea has been to strengthen the DPRK's human and institutional capacity for improving living standards and shifting to a sustainable development track, while encouraging an open and peaceful relationship with the world community."[6]

Yet Randall Ireson points out, "Objectives have not been constant over time, nor entirely shared."[7] The same could be said for practitioners' motivations, which overlap and are at times contradictory. And whereas practitioners are likely to state some of their objectives publicly (fundraising practically requires that they do so), they are more likely to keep their motivations private. However, this initial list—humanitarian concern, bridge-building, and research/professional advancement—might provide a glimpse into some practitioners interest in working in and with the DPRK, and might prove an interesting spring-board for discussion.

Practitioners in any kind of educational exchange with the DPRK might be motivated by any combination of these concerns. However, those described earlier in the list are more likely to be shared by NGO staff, while those toward the end are more likely among academics.

Humanitarian Concern

For many actors, particularly but not exclusively in the NGO field, a primary purpose for working with the DPRK is to reduce the hardship faced by ordinary North Koreans and raise their standard of living. One practitioner commented, "From a personal standpoint, I am interested because of the tragic situation that the DPRK is in…. [T]hroughout my career I have tended to take on the impossible."[8]

Another practitioner notes that "Our goal in knowledge sharing is that participants will teach their own students; we hope that they can have input on decision-making and improve economic conditions in the country."[9]

In some cases, the humanitarian motivation stems from a faith-based belief in the responsibility to provide "service" to a community or people in need. One NGO includes a quotation from the Bible on its website to illustrate its motivation for working in the DPRK: "I was sick and you looked after me…. I tell you the truth, whatever you did for one of the least of these brothers of mine, you did to me."[10]

Some practitioners who desire to improve the well-being of the North Korean people can demonstrate that the knowledge gained from their exchange programs has traveled beyond those immediately involved. For example, techniques acquired through some of the early knowledge sharing collaborations in agricultural programs, such as the use of double-cropping to increase productivity, have been adopted nationwide.

Bridge-Building

Many practitioners hope that person-to-person contact will prevent the dehumanization of the "other" and lead to the forming of human relationships that may bear fruit many years later. These actors believe that knowledge sharing programs that bring North Koreans to other countries play some role in building peace as well as in facilitating North Korea's entry into more normal relations with the rest of the world. One practitioner notes,

> First, [exchange programs] give an opportunity for individual exchanges and firsthand experience of life in a very different society. Building such ties of personal trust and familiarity with the outside world will be critical in fostering the level of confidence that is necessary for the DPRK to make successful transitions to a more open economy and society.... Such programs build institutional ties between North Korean institutions and their partner institutions in the region. This provides a long-term foundation for further engagement and cooperation as the political environment improves.[11]

Jin Park and Seung-Ho Jung, whose review of knowledge sharing activities on economic topics found that such exchanges increased in 2004, argue that "knowledge partnership can be a way to communicate with the DPRK when nuclear issues create impasses."[12] For example, the Korea Society-Syracuse University-Kim Chaek University of Technology relationship described below persisted through some of the most challenging moments in DPRK-U.S. relations, including the DPRK's announcement that it had nuclear weapons, the breakdown in Six-Party Talks in November 2005, and the test-firing of seven missiles.[13] Syracuse University scholars hypothesize that "the two governments permitted the exchanges in part to keep at least some channels [of communication] open."[14]

There is substantial faith within the knowledge sharing community that despite political differences between the two countries, genuine people-to-people relationships are possible. Several institutions in the United States and elsewhere incorporate homestays for DPRK visitors as an opportunity to deepen relationships (as well as to lower program costs).

For some practitioners in this category, bringing North Koreans to the United States is an essential element of their approach; they strive to share the vast American experience—the diversity of people, opinions, technology, religions, and philosophies. They emphasize the importance of the United States as a post-WWII global leader in the power of ideas, a U.S. strength

that transcends the value and reach of U.S. business. As one practitioner described it, "Seeing is believing."[15]

However, in contrast to the dissemination of technical information, it is less clear whether the trust or positive impressions developed between two participants is extended to non-participants, at least at this stage. As one practitioner commented, "We would need more evidence from an academic standpoint."[16]

Professional relationships are an important subcategory of bridge-building and could in some cases be seen as a tool of bridge-building rather than a motivation for it. Exchanges, especially those centered on fields such as natural science, physical science, life science, or medicine, can be particularly successful at the technical level as well as the personal level because the vocabulary and training specific to each discipline transcends other differences. This has proved true for other regions that rival the Koreas in tension and volatility.

For example, the Middle East Consortium on Infectious Disease Surveillance (MECIDS) is composed of public health experts and Ministry of Health officials from Jordan, Israel, and the Palestinian Authority. Members have found ways to bridge political divides in order to address "the common threat of emerging infectious disease."[17] A recent emergency has proven the effort to be successful: during the 2009 H1N1 outbreak, Israeli, Palestinian and Jordanian health officials held an emergency teleconference to discuss a joint action plan two days *before* the WHO Director General called for collaborative efforts to address the emergency.[18] Some practitioners of knowledge sharing with the DPRK hope to establish equally rewarding and transformative professional relationships.

Some practitioners believe that scientific exchanges and "science diplomacy" may be of particular value in building bridges. David Kerr, who established collaborative research projects on cancer in India,[19] notes:

> Science diplomacy has enormous potential as a political framework for delivering the dual goals of improving the scientific outcomes of a target population (in essence for good) and improving relations between countries (rather than efforts to take power). It will not by itself help negotiate peace treaties, draw up boundaries between warring states or solve disputes over scarce global resources. Nor should it try. But delivered thoughtfully and rigorously, science diplomacy can open doors between peoples in conflict, keep them open when relationships are tough, and help unlock the potential of our global, collective body of knowledge.[20]

Research/ Professional Advancement

Besides contributing to the greater good, some practitioners involved in knowledge sharing might be interested in working with North Koreans for their own personal advancement. North Korea represents a new frontier in

all areas of research, and therefore there is potentially great professional benefit to being among the first group of scholars to conduct authoritative research with North Koreans or in the DPRK. One academic notes, "From an institutional standpoint, the motivation would be, first, an opportunity to carry out meaningful research and to have an opportunity to train North Korean students, particularly at the graduate level."[21]

Some practitioners, both inside and outside of academia, are enticed by the prospect of being one of a small group of Americans to have worked with North Koreans and to have visited the country. For such people, simply learning more about the DPRK and increasing their understanding of how the country functions, is intellectually gratifying.[22]

Comparison with U.S.-China Exchanges

U.S. academic exchanges with the People's Republic of China (PRC) provide a larger sample with which to compare the U.S.-DPRK experience. In a 1987 essay China scholars Patrick G. Maddox and Anne F. Thurston analyzed the experiences of U.S. institutions and individuals engaged in academic exchanges with China.[23] Maddox and Thurston enumerate the following motivations that U.S. practitioners have for working with Chinese students, professors, and universities: high quality students, service (including a feeling of personal responsibility for some Chinese-Americans), mutual benefit (particularly in the sciences, where "opportunities for research of benefit to the both China and the United States—and the advancement of knowledge as a whole—are best developed")[24], academic self-interest, and profit.

There are considerable differences between the DPRK and PRC relationships with the United States, most significantly the existence of a web of Chinese-American academic connections that existed prior to war breaking out in China and the Second World War.[25] However, there is enough overlap between the DPRK and PRC that there may be some relevance. The list of U.S. motivations might already incorporate categories from the Maddox-Thurston list or expand to include them in the future.

High Quality Students

The high quality of some of the North Koreans working in IT fields may lead one to anticipate a time when U.S. institutions will seek North Korean graduate students specifically for their level of promise.

Service / Spurred by Ethnic Identity

Currently, the number of Korean Americans participating in North Korean knowledge sharing projects remains small, but those programs that do incorporate Korean-American expertise are among the most successful. It is likely that Korean American involvement will grow.

Profit

Since the 1980s, students from China have provided some institutions with an important means of expanding their revenue streams, especially by filling slots for U.S.-government-funded graduate fellowships in the sciences that would have been vacant if the pools had been limited to U.S. students. Of course this incentive does not yet exist in the case of the DPRK, as North Korean graduate students are not attending U.S. educational institutions. However, there may be some economic benefits for the U.S. institutions in attracting American students. As American undergraduate and graduate student interest in studying the DPRK increases, they may be drawn to universities that incorporate North Korean studies and expertise in their programs.[26] This may be particularly true for a college or university that already has a strong Asian Studies program.[27]

"Making China More Like Us"

Thurston and Maddox also point to an unarticulated motivation of "making China more like us."[28] This came as a by-product of the desire to assist in acculturation and to bolster the Chinese students' comfort level during their stay in America. It also occurred within the academic exchange itself—particularly, Thurston and Maddox speculate, in the social sciences. According to Thurston and Maddox, scientists assume that science is "by nature universal"; therefore, U.S. scientists felt that Chinese scientists were benefiting the world by joining the international science community. In contrast, some U.S. social scientists believed that "social science *ought* to be universal" and that therefore the U.S. academics were doing a service by "showing Chinese how social science ought to be done and 'in helping Chinese scholarship to move in the direction of modern social science and join the international intellectual community.'" This motivation could possibly be ascribed to some practitioners working with the DPRK. Some North Koreans might be disturbed by such a motivation, and might not be interested in working with such partners.

Pitfalls

As U.S.-DPRK exchanges develop, there are certain pitfalls, or factors that make it difficult to achieve a positive result. Although these conditions might have initially come as a surprise to Americans who had worked on similar projects in other countries, as time has passed, they have been recognized as common features of the U.S-DPRK exchange environment.

Many of these pitfalls stem from differences in the DPRK and U.S. systems. For example, the two countries may have very different ideas about the ultimate goal of education and the benefit of participating in educational exchanges. Publicity, an important fundraising tool in the United States, can jeopardize exchanges with the DPRK. Limited points of contact in the

DPRK may lead to mixed expectations or mixed agendas during exchanges. The civil society relationship may be subsumed in geopolitics. And the legal environment, already challenging for U.S. practitioners, may become even worse.

Educational and Exchange Objectives

The DPRK has a high literacy rate—the CIA Factbook lists it at 99%[29]—and a well-educated work-force. Knowledge sharing practitioners are consistently impressed with the educational background of North Korean participants, especially in the IT fields. Clearly the DPRK places considerable value on education. However, beliefs about the purpose of education may vary between the United States and DPRK. In North Korean public pronouncements, education is frequently mentioned in political and ideological terms:

> A great number of personnel capable of taking a share in building a thriving nation should be trained by effecting a radical change in education as required by the Songun era and the IT age.... Youth league organizations should put primary effort to ideological education to thoroughly prepare young people as youth heroes and human bullets and bombs in the Songun era who will defend the headquarters of the revolution at the cost of their lives.[30]

This does not mean that education's sole purpose is to serve the state. Again turning to China, Richard Madsen dismisses as far too simplistic the argument that "in China, scholarly enterprises are supposed to directly serve the 'development goals articulated by national leaders'" in contrast with America, where "the humanities and social sciences... [primarily serve] the disinterested pursuit of knowledge."[31]

Still, scholarly success *is* defined differently in each country. The American academic becomes successful by quickly publishing original research within loosely defined parameters constructed by the institution, by colleagues and competitors in the field, and by the more narrowly defined funding criteria. At the time Madsen was writing, scholars at the Chinese Academy of Social Sciences carried out research in accordance with the state's five-year plans.[32]

The DPRK and China should not be equated, and what Madsen has to say about China in the 1980s may have no parallel with the DPRK. However, his paper serves as a good reminder that the purposes of education are value-laden, and that it would be wrong to assume that actors in each country are engaged in knowledge sharing efforts for the same reason or are similarly rewarded by the systems in which they work. And at the very least, DPRK university funding is quite different from university funding in the United States and is associated in part with national priorities.[33] These differences might contribute to some of the tensions described below.

It is even more difficult to guess North Korean motivations for participating in knowledge sharing exchanges than it is to guess American ones. Based on her study of educational exchanges outside the DPRK from

1995 through 1999, Kyung-Ae Park believes that North Koreans participate in an attempt to boost the DPRK's economy and public health, as described further below.[34] Ireson suggests that the DPRK might have the following objectives for participating in NGO exchanges: "to collect up-to-date technical or scientific information for review and possible dissemination; to learn applied techniques that can be adopted or adapted to DPRK conditions; to collect books, scientific journals, samples, seeds, equipment, etc., for testing and use in the DPRK; to cautiously allow trusted scientists to travel, but to minimize the impact of their visit on their social and political outlook."[35] The accuracy of these assumed goals has not been tested, nor has the motivation been queried. Meanwhile, some practitioners believe that North Koreans treat all educational exchanges like a Trojan Horse, weighing the costs and risks to the DPRK of new ideas and asking when even a technical idea might be counter to a DPRK regulation or DPRK mores and values.

Publicity

U.S. NGOs and academic institutions raise money through publicity, reports and academic papers. This has proven extremely counterproductive in the DPRK context, where individual institutions or scholars are under no pressure to get their names in the newspaper. Practitioners have learned in particular to avoid publicity prior to an event; to do otherwise is to risk the cancellation of that event or the entire project.

Limited Points of Contact

State apparatuses in both countries limit and influence DPRK-U.S. relationships. This acutely limits communication among practitioners on all sides. The only point of contact for the DPRK inside the United States is the DPRK Mission to the United Nations in New York City. Through the Mission, U.S. organizations involved in knowledge sharing activities communicate with their DPRK counterpart organization. For most U.S. organizations this was initially the Flood Damage Rehabilitation Committee (FDRC) and, more recently, the Korea-America Private Exchange Society (KAPES). The FDRC was overseen by the DPRK Foreign Ministry and so is KAPES. (Although by its own description KAPES is a non-governmental organization, its honorary leader, Ambassador Li Gun, is one of the foreign ministry officials best known to Americans, and a well-known interlocutor on security issues.) However, some U.S. institutions interface regularly with ministries and agencies that oversee their projects while they are in the DPRK and can communicate with those organizations via the Mission from the United States.

Authority and responsibility in the DPRK is structured vertically. Horizontal communication and collaboration with North Korean entities working on related or even identical topics can be difficult, if they are overseen by different agencies.[36] This makes it very challenging for practitioners to

understand the full context of a need identified by the DPRK government, even at the basic level on which North Korean and foreign entities are working on the issue.

Communication between exchanges is largely through the DPRK Mission to the UN, and lapses may occur when the government temporarily identifies another priority. Such lapses are discouraging to practitioners, certainly on the U.S. side and perhaps on the DPRK side as well.

Direct contact with the participants themselves is usually not possible until the exchange begins, so in many cases it is not possible to develop a research agenda jointly.[37] Decisions about what topics to pursue are determined by the intersection of the DPRK government's priorities, the host organizations' interests and strengths, and the ability of the host organization to procure funding on that topic.

Limited opportunity to consult with North Korean participants in advance of an exchange can lead to mismatched expectations. Sometimes, as a message goes through several iterations, the specialized content can be lost or diluted.[38] At the most basic level, this could mean that a delegation arrives wanting more information on forage and cover crops but has been scheduled to have discussions on sloping land management. This requires the U.S. partner to scramble to set up more useful and appropriate visits.

A more complicated scenario is an exchange that turns out to have multiple agendas. Reed suggests that there are three kinds of DPRK-U.S. exchanges: "political, technical and mixed."[39] A delegation in the first category of exchange, visiting for the purpose of Track II dialogue, is prepared to discuss political topics, and the U.S. host has set up appropriate meetings. The second kind of exchange, on technical topics, also proceeds smoothly. (This might be true for any NGO or university educational exchange or visits directly related to that organization's program, not just technical exchanges.) Reed contends that

> there are also cases in which a technical focus is used to promote a political purpose. The technical content may provide a framework and rationale for the visit, but the primary interest on the DPRK side is to contribute to some political goal, such as delivering a message, having Track Two-type encounters, probing U.S. official positions, or simply demonstrating goodwill.

Kyung-Ae Park also notes that "North Korean delegates have used their visits, especially academic ones in which the symbolic representational value is greater than the substantive value, as a channel for making political contacts with government officials and policymakers of the host countries."[40]

At a minimum, such visits with "mixed agendas" seem to indicate that North Koreans, like their American counterparts, have overlapping motivations for participating in exchanges. However, these "mixed agenda" visits have become less common as North Koreans have developed a greater

understanding of the motivations and goals of different American actors.

Capital Commitments in an Exchange Project

Another potential pitfall for the U.S. partner is the necessity of occasionally demonstrating their commitment to the project and relationship in a "concrete" manner.[41] This means providing some kind of tangible or material input, which can range from an assortment of scientific journals to far more expensive materials. According to Ireson, North Korean participants sometimes need to "demonstrate the success of the delegation" by bringing back evidence, in the form of project-relevant donations, that the visit has been useful.[42]

Sometimes the U.S. host might believe that the request corresponds perfectly with other program's objectives, as expressed in joint agreements or other conversations. At other times it might be more difficult to understand or respond to the request, particularly for academic institutions if there is little precedent for gifts of this nature.

Such requests can raise many questions for a U.S institution. What is acceptable? Is it necessary for the U.S. institution to know the ultimate destination and use of the inputs? Will the relationship really be strengthened, or will this invite further requests that will become increasingly difficult to fulfill?

The difference between U.S. and DPRK perceptions of capital commitments (hardware) to accompany educational exchanges (software) is profound. Some Americans find it bewildering or off-putting. In frustration, some practitioners use the derisive terms "pay to play" or "entry fee." This reflects a belief held by some practitioners that the DPRK so undervalues the exchange aspect that they are unwilling to go forward with an exchange if the accompanying hardware has not been received. Other practitioners have had less difficulty in accommodating requests, especially those that transparently further the goals of the training or educational exchanges.

Politics and Visas

At a fundamental level, NGOs and academic institutions are subject to the foreign policy of their governments. U.S.-DPRK educational exchanges are embedded in the politics of U.S.-DPRK official relations. As Reed says, "When the DPRK and U.S. policies line up for political engagement, exchange programs can move ahead. When one or both sides do not favor political engagement, discussions with the DPRK may continue, but concrete program steps will be limited."[43] Even in the best of times, the political framework takes the form of legal requirements and regulations.

The visa process has a very significant impact and can prove to be a major pitfall in educational exchanges that are to take place in the United States. At times visas are withheld contingent on an advance in security issues; however,

the benchmark is seldom openly expressed by the U.S. government and the host agency might be left to speculate on the nature of the contingency, and therefore, when visas might be granted.

Practitioners note that at all times U.S. safety and security interests must be of primary concern and that North Koreans should not be allowed to enter the United States without thorough vetting by the relevant U.S. agencies. Furthermore, some practitioners concur that there are some limited circumstances when denial of visas may have symbolic and tactical utility, although this opinion is not universally shared. However, visa approvals based on political contingencies make it difficult to operate in a poor political climate. Approval or disapproval may not come until the last moment, limiting an institution's ability to plan meaningful programming, raise funds, or conserve limited funding through the purchase of non-refundable tickets, etc.

At times DPRK UN Mission representatives are invited to participate in educational exchange programs in the United States; their travel is also restricted. In accordance with UN treaty, the host nation, in this case the United States, agrees to permit entry for representatives to the UN of countries that it does not diplomatically recognize or would otherwise prohibit to travel to the United States. The treaty stipulates entry and exit to the United States through JFK airport and permits no travel beyond a 25 mile radius from the UN.[44] DPRK representatives to the UN wanting to travel in the United States beyond this 25-mile limit must gain State Department approval.

The longest DPRK delegations have been able to travel in the United States is about three months. It is difficult to pinpoint exactly where the responsibility for this limitation lies; U.S. failure to issue longer-term visas is only part of the obstacle. At the same time, the DPRK is reluctant to send students or faculty to the United States for periods exceeding three months, though North Koreans do attend multi-year programs in other countries. Some academic institutions believe that three months is too short a time for meaningful academic exchange and that this obstacle must be overcome on both sides for academic exchanges to flourish. The alternative of hosting exchanges in a third country will be discussed below.

North Korean permission for Americans to travel to the DPRK can also be tied to geopolitics, or, occasionally, to a temporary internal prioritization unfavorable to the project or institution. In some cases, the U.S. partner must wait for permission to visit with little or no explanation for the delay. Although for the time being NGO travel is usually exempt from such difficulties, academic partners and others might wait for permission to visit the DPRK for quite some time after a request has been made.

Legal Environment

In addition to the issuance of visas, a complex legal climate creates substantial challenges to institutions interested in or involved in educational exchanges

with the DPRK. Laws concerning exports, including dual-use goods and deemed exports,[45] are particularly difficult to navigate, which poses a particular challenge to U.S. academic institutions. As described by Stuart Thorson,

> Sustained academic exchanges with the DPRK at present require extremely onerous and expensive legal oversight to ensure that programs do not unintentionally run afoul of export control restrictions. In the most basic case this means that equipment sharing will generally require a costly export license. More subtle are the deemed export restrictions which make even talking about many technical topics problematic unless the substance of that discussion can be shown to already be in the public domain and not otherwise in violation of regulations.[46]

Academic exchanges require both institutional commitment and the capacity to research, understand, and comply with relevant legal requirements.

The fact that the terrain may change can be particularly forbidding. As Thorson points out, "These regulations are often subject to reinterpretation and thus provide a chilling context antithetical to the trust building so critical to any serious sustained academic exchange."[47]

On June 21, 2010, the Supreme Court found that providing legal or human rights training to groups considered to be terrorist can be classified as "material support" and is therefore illegal. The Opinion of the Court concludes,

> A foreign terrorist organization introduced to the structures of the international legal system might use the information to threaten, manipulate, and disrupt. The possibility is real, not remote.[48]

From an NGO perspective, even an investigation into an organization that, in the end, is never proved to have terrorist ties can disrupt that organization's activities through the removal of computers and files and negatively impact funding through interviews with top donors.[49] From an academic perspective, restrictions on jointly authored papers and editorial cooperation may have a similar negative impact.[50]

The Supreme Court case pertains to terrorist organizations, not states, a point the opinion clarifies. However, it creates a precedent wherein training in international norms is considered to be material support of an enemy or potential enemy, and in this regard it is intimidating. The DPRK was removed from the State Department's list of states that sponsor terrorism in 2008, but members of the Congress, especially in the House, are working to reinstate it.

Past Record

This section provides a framework for understanding the U.S.-DPRK educational exchanges that have already taken place—the different formats

and topic areas, the gradual evolution over the last decade and a half, and the different actors involved. It also puts the U.S. experience in context, describing the types of programs in which the DPRK participates in other parts of the world.

The Evolution of Knowledge Sharing Exchanges

The exchange of information about knowledge sharing activities with the DPRK takes place on a very limited basis, and usually not in print. As noted above, publicizing an event can be counterproductive and may even result in the cancellation of a program. Consequently there is a dearth of written records over the past fifteen years, and those papers that have been written seldom cite more than one or two examples. Most papers in English that explore case studies tend to be somewhat elliptical, with identifying features of the case study obscured or reduced to a few variables for comparison purposes.

However, within the practitioner community, enough is known about generalities to enable thoughtful analysis. In a 2007 paper surveying knowledge sharing activities in the agricultural field, Ireson found that aid organizations from at least a dozen countries had conducted knowledge sharing programs outside the DPRK in at least fifteen countries on at least thirty-four different agricultural and animal husbandry topics.[51] Ireson observed that these programs focused on "best farming practices" in different countries and environments rather than "cutting-edge research problems."[52] In a more recent paper, Ireson charts the types of knowledge sharing activities with the DPRK on a continuum.[53]

Typically, introductory activities are short in duration. Longer exchange periods or multiple exchanges/classes on a single subject create better conditions for meaningful knowledge sharing. Inside the DPRK, the most basic kind of knowledge transfer is a technical project visit; such visits, which are an integral element of agricultural programming, began to take place with little fanfare as NGOs segued from providing food assistance in the 1990s to beginning small-scale agricultural projects. Experts visiting the DPRK discuss and compare practices with North Korean counterparts, and provide training on new equipment or techniques. Ireson noted that "the first instance of knowledge sharing in agriculture was the knowledge gained by international organizations about the practical conditions on DPRK farms, and about the policies and production technologies promoted by the government."[54] This input was immediately useful because it helped western NGOs to adapt their programs to "intense differences in political and policy perspectives in the DPRK."[55]

As these NGO programs developed, exchange opportunities deepened: visiting scholars gave lectures on relevant topics and experts conducted week-long trainings on techniques or the broader context for implementing aspects of a given program. Sometimes these were one-off workshops on a specific

topic, and other times they were a series of lectures around a single topic. Ireson notes that the DPRK began requesting longer and more specialized training programs, sometimes before U.S. counterparts were prepared to provide it.[56] At the same time, knowledge sharing programs inside the DPRK developed independently of NGO programs, particularly in the areas of language, business and economics. For example, the Pyongyang Business School, opened in 2004, conducts monthly classes on business-related topics.[57]

Ireson traces the same trajectory for knowledge transfer activities outside the country. The opening step in building a relationship or exploring a new topic is a "familiarization" study tour by North Koreans to the host country lasting up to a month, but often much shorter. Sometimes these trips are described as "tourism trips," because they just brush the surface of the topic area, providing no more than a glimpse of possibilities. However, sometimes such an introduction to a topic is a necessity; furthermore they can be a critical component of relationship building.

A more focused kind of educational exchange program might be conducted to improve implementation of an in-country program, or it might address other areas of interest to the DPRK, such as law, energy or business, independent of on-the-ground programming. The top of the chart is DPRK enrollment in undergraduate and graduate degree programs in foreign countries.

Although the chart illustrates deepening levels of exchange, it should not be considered a ladder that is climbed, one rung after another, by each practitioner organization in the United States or elsewhere. One organization might focus on educational exchanges near the bottom end of the chart while another might specialize in activities near the middle. When a new topic is introduced, a study tour might be the most appropriate first step. Academic institutions might offer degree programs without first offering short-term educational programs. Importantly, no U.S.-DPRK relationship institution has progressed "up the ladder" from a study tour or short-term study project to matriculation in a degree program.

North Koreans do attend degree and non-degree programs in many other countries. China is likely the top destination, with an estimated range of under one hundred to over five hundred North Korean students studying in China annually. Historic ties to former socialist or communist countries have also led to academic exchanges, particularly for a number of middle-level and upper-level government officials who speak the languages of these countries.[58] Poland hosts about sixty students a year, and the Czech Republic, which offers North Koreans a mixture of short-term and long-term scholarships, as well as various seminars on economic issues, hosts about 25. Germany offers 12 scholarships annually to North Koreans for graduate and postgraduate studies, and invites North Korean doctors to Germany for postgraduate training. Even France, one of only two EU nations that does

not have diplomatic relations with the DPRK, hosts a small number of North Koreans. Sweden and Switzerland are also leaders in offering opportunities to North Koreans. The Australian National University had a successful knowledge sharing program with the DPRK that was suspended because of a lack of qualified students.[59] In addition, expatriate professors teach at a number of DPRK universities.

In-depth collaborative research is uncommon, but it does take place. In addition to some of the examples that will be discussed below, there is an annual five-month program in Vietnam on rice breeding. Between 2003 and 2006, North Koreans worked with the Australian Centre for International Agricultural Research (ACIAR), the Australian government's official development assistance program, and ultimately collaborated on a research project on integrated pest management for brassica crops (of the cabbage and mustard family) in the DPRK that also contributed to the improved use of integrated pest management (IPM) for brassica crops in Australia.[60] The results of the joint research project were presented in Beijing.

Training and collaboration with UN agencies should not be overlooked. The UNFPA worked closely with the DPRK Central Bureau of Statistics on the 2008 National Population Census (released December 2009). UNFPA's role included training sessions for the designers as well as the enumerators and observers to ensure the smooth running of the census at the information-gathering stage.[61] The Center for Demography and Sustainable Development (CDSD) of Fok Ying Tung Graduate School at the Hong Kong University of Science and Technology (HKUST) conducted two of those training sessions and expressed an interest in "follow-up training workshops and collaborative research between the Central Bureau of Statistics, DPRK and CDSD-HKUST."[62] The census, in turn, has been the basis of a DPRK/UNDP project to produce the first National Progress Report on DPRK's progress on the Millennium Development Goals.[63] Although these are not academic exchanges, this intense level of collaboration may lay the groundwork for future academic exchanges, particularly with HKUST.

The U.S. Experience in Context

At this point, the majority of DPRK-U.S. exchange activities fall in the middle of the spectrum: specialized study tours that may involve in-depth training or experimentation in the United States and other countries. When knowledge sharing exchanges with the DPRK first began, that was the case for all countries. Kyung-Ae Park surveyed knowledge sharing exchanges with North Koreans taking place outside the DPRK from 1995 through 1999. She found that out of the 61 cases for which data on duration were available, a dozen were under ten days and forty-two were a month or less. Only eleven programs lasted over two months. This was still the case in the 2007 study by Jin Park and Seung-Ho Jung that took place between 1997 and 2006.

About 70% of the cases they reviewed were field trips and short-term training activities.[64] Although neither of these studies is comprehensive, they reflect the state of knowledge sharing activities between the United States and the DPRK at that time.

As noted, North Koreans have enrolled in regular academic degree programs in several countries. However, exchanges of matriculated students have not yet taken place between the United States and the DPRK. Although no comprehensive international surveys have been conducted since the Park/Jung survey, it is likely that at this point the combined total of mid-term and long-term programs has outdistanced short-term programming. However, in the United States short-term and mid-term programming is still the norm, in part because of the predominance of NGO-sponsored activities.

The NGO role in the United States has also influenced the content matter of educational exchanges. In the Kyung-Ae Park study, nine of the fourteen exchanges held in the United States were in either agricultural, energy or medical fields, with agriculture in the lead.[65] The U.S. experience was not the norm during the period of Kyung-Ae Park's review; during that time, economics, business and law were the most frequent topics.[66]

In addition to the fact that NGOs involved in food security and medical program have been at the forefront in organizing exchanges, the apolitical nature of these types of programs may explain why they dominate U.S.-DPRK knowledge sharing. Of the 103 data points in the Park/Jung survey of knowledge sharing exchanges on economic issues hosted inside and outside the DPRK, fewer than 10% took place in the United States. While this is comparing apples and oranges (the Park/Jung paper looks at a much larger selection of countries), it may also be an indicator of declining U.S. ability to host exchanges on economic topics at that time.

The United States and the DPRK are only at the beginning stages of true academic exchanges, as will be described below. However, with the opening of the Pyongyang University of Science and Technology (PUST), at least one milestone has been reached: there are now full-time resident American faculty members teaching North Korean students.[67]

Frequency and Quality of Knowledge Sharing Activities

Some other reflections might be useful. Although exchanges are sometimes used for political purposes, as noted above, Park found that the DPRK had engaged in exchanges "mainly in substantive and pragmatic fields rather than in the areas where symbolic representation has value."[68]

Park notes a dramatic increase in study delegations in 1998—from eleven in 1997 to twenty-five in 1998—which she interprets to mean that "North Korea is increasingly linking itself to capitalist countries and making efforts to move away from isolation and toward engagement."[69] The inauguration of the "Sunshine Policy" might have encouraged DPRK movement in this

direction. However, the rate slowed in 1999, which Park attributes to wariness over publicity, particularly in subject areas that might be related to reform, such as business and law, as will be discussed below.[70]

The Park/Jung study found a dramatic increase in 2004 that the authors link in part to the third visit of Kim Jong-il to China in April 2004. They argue, "This clearly shows a need for the international community to focus more on making him a part of [knowledge partnership]."[71]

Actors

There are a number of categories of actors involved in knowledge sharing activities with the DPRK: NGOs with in-country programming, civil society organizations without in-country programming, academic institutions, and funders.

NGOs

As noted above, NGOs were the first U.S. actors to become involved in knowledge sharing activities with the DPRK; such activities evolved organically as part of program development. When NGOs identified gaps in their own knowledge and expertise, they partnered with other organizations, including professional societies, teaching hospitals and universities in order to bring in experts who could fill those gaps. NGOs that have partnered with universities on a short-term or long-term basis include Agglobe Services International, the American Friends Service Committee, Christian American Medical Mission, Christian Friends of Korea, Eugene Bell, Global Resource Services, the Institute for Reconciliation, Mercy Corps, Samaritan's Purse, U.S.-DPRK Medical Science Exchange Committee (UDMEDEX), and World Vision.

Civil Society Organizations

The second category consists of civil society organizations that do not operate ongoing aid programs inside the DPRK but have been, or hope to be, facilitators and organizers of knowledge sharing activities inside and outside the DPRK. This sector is represented by organizations such as the Asia Foundation, in its capacity as an operating foundation, the Korea Society, CRDF Global, and the American Association for the Advancement of Science.[72]

Academic Institutions

Academic institutions often work hand-in-hand with NGOs. In fact, most American academic institutions first established contact with the DPRK through the facilitation of NGOs. In this partnership, the NGO provides the long-term continuity through relationships and facilitation, while the academic partner provides short-term research, legitimacy and expertise. One practitioner, calling the intermediary role historical rather than contemporary,

notes "as the amount of academic engagement increases, academic institutions themselves have become trusted intermediaries."[73] However, U.S. university to DPRK-university relationships are still limited in number.

From the NGO/facilitator perspective, there are two ways of collaborating. In one model, the NGO/facilitator identifies areas of expertise necessary to implement a broad range of programs and invites multiple colleges and universities to collaborate. This method utilizes as many points of contact as possible and thereby cultivates an interest in North Korea in an expanding number of universities. Alternatively, an NGO/facilitator may work closely with a single university, with the expectation that both the NGO-university and DPRK-university relationships will flourish and lead to more specialized or longer-term exchanges. These methods are not mutually exclusive. As will be discussed further below, NGO-initiated exchanges have not yet led to a university-to-university relationship.

Outside of the United States, academic institutions do not seem to rely on NGOs to make the initial contact with the DPRK. In Europe, diplomatic staff based in Pyongyang may provide the linking role. Writing from a South Korean perspective, Park and Jung note,"There is no doubt that direct contact between a host organization and the DPRK is the most efficient model. However, when North Korea is reluctant to accept an invitation from a specific host, such as South Korea, co-organization of a program with a network provider who works as a bridge between the DPRK and the host can prove to be beneficial."[74]

The list of American universities and teaching hospitals that have been involved in exchanges with the DPRK is long; a partial sample includes Auburn University of Kentucky, Beth Israel, Columbia University, Grand Canyon University, Haverford College, Iowa State University, Johns Hopkins Hospital, Langston University, Mars Hill College, Mercer University, Mesa Community College, Samford University, Simmons College, Swarthmore College, Texas A&M, University of Alabama Medical Center, University of California, University of Georgia and University of Pittsburgh. However, only a handful has sought or maintained an ongoing relationship with the DPRK for the purposes of educational exchanges. Among the institutions that have done so are Cornell University, Oregon State University, University of Mississippi, University of Missouri, Stanford University and Syracuse University.

Foundations and Funding

Individual donors and foundations have been important partners in knowledge sharing activities with the DPRK. It has perhaps been easier for NGOs to raise money for knowledge sharing activities that are an integral part of their humanitarian efforts, but even so most U.S. NGOs have relied on donations from individuals to fund study tours and training sessions. Many universities

stand ready to accept North Korean students; they have the funding in place for scholarships for regular degree-seeking students. However, it may be harder to identify funding to support North Koreans in short-term specialized programs. Educational exchanges with universities have been supported by the Hanmaum Foundation (of South Korea), the Henry Luce Foundation, the Richard Lounsbery Foundation, the Rockefeller Foundation, and the United Board for Christian Higher Education. The Asia Foundation has provided both institutional support, as an operating foundation, and financial support. A handful of individual funders have also supported academic exchanges.

An institutional financial backer must make a long-term commitment and be able to look beyond short-term benefits. Some foundations are able to see their role as contributing not just to the project but also to the long-term stabilization of the region. However, sometimes it becomes impossible to implement a program within the time frame of even an understanding funder, and funding must be returned.[75]

Although U.S. host organizations should be ready to bear all expenses, particularly for educational exchanges that take place in the United States or a third country, it should be noted that the DPRK has at times provided its own funding. For example, Kyung-Ae Park found that the DPRK covered the costs of six of the sixteen exchanges that took place in 1999.[76] It would be interesting to update this data. In addition, it should be noted that the DPRK often makes in-kind contributions to projects, e.g., through labor and construction in the DPRK.

DPRK Actors

U.S knowledge sharing practitioners have worked with a multitude of North Korean bodies and branches of government. A partial list includes the Academy of Agricultural Sciences, the State Academy of Science, the Committee for Solidarity with World People, the Grand People's Study Hall, the Kim Chaek University of Technology, Kim Il-sung University, the Korea-America Private Exchange Society (KAPES), the Ministry of Agriculture, the Ministry of Education, the Ministry of Public Health, the Ministry of Social Welfare, the Pyongyang Horticulture Company and the Pyongyang University of Foreign Studies.

The kinds and types of DPRK participants have broadened over the years, with a notable increase in the number of experts, and it has become easier over time for U.S. practitioners to select the participants. Also, practitioners and their DPRK counterparts have developed two models of participation. In one model, a core group of participants takes part in all exchanges, regardless of where the exchange takes place (the United States, the DPRK, or a third country). This allows the participants to deepen their ties with their foreign counterparts and gain more from subsequent exchanges, as the energy required to negotiate and respond to a new environment and culture

decreases. In the second model, an exchange program works to increase the number of people who participate, in an attempt to broaden the impact and expand the reach of a program. In this model, new academic institutions and departments are identified for participation annually. This is a useful model for programs that cover the same general information from year to year.

Case Studies

This section provides a glimpse of several efforts to establish educational exchanges, particularly academic exchanges, between the United States and the DPRK. It looks first, briefly, at educational exchanges from the perspective of three NGOs.[77] Most of these educational exchanges take place as part of the implementation of a humanitarian program. The case studies demonstrate the effective collaboration between NGOs, with their on-the-ground ability to identify needed expertise, and the ability of academic partners to provide it. The section then looks more deeply at exchanges from the perspective of civil society and universities in order to assess the current status of U.S.-DPRK academic exchange programs. These case studies provide, in greater detail, attempts to establish academic exchange programs.

Global Resource Services

Global Resource Services (GRS) is an NGO with programs in multiple fields in the DPRK, including medicine and food security. It regularly conducts in-country knowledge sharing activities in support of those programs. GRS has worked with many different universities on knowledge sharing programs with the DPRK. A program in China for which GRS had recruited ESL teachers for universities and conducted English Business Language seminars for international companies has grown to include sessions for North Koreans conducted in cooperation with the Pyongyang University of Foreign Studies. GRS also works closely with the leadership of the University of Mississippi on topics of mutual interest such as cardiology and reconciliation.

Mercy Corps

Mercy Corps has been involved in pomology in the DPRK since 2000, when it sent five varieties of rootstocks to create a 10,000 tree apple farm in South Hwanghae Province.[78] With its headquarters in Portland, Oregon, Mercy Corps was well positioned to provide these items; apple orchards are a major business enterprise in the state, and it was easy to obtain the interest of local experts. In addition to the apple tree project, Mercy Corps implements programs in other food security programming, such as fish farming and tofu production.

In order to support the apple tree project, Mercy Corps has arranged over ten delegations to visit the orchards in the DPRK, and three delegations from the DPRK to the United States. In one instance in 2007, a delegation of North

Korean farm managers visited Oregon State University, where they discussed organic farming principles, integrated pest management, and practical pruning techniques. They also discussed the market price of different varieties and how apples are marketed and sold in the United States. The study tour included a visit to a private organic apple farm in rural Lane County and various farms throughout the state of Oregon.

As Mercy Corps notes, in-country visits are just as important. In 2010, the same three Oregon State University professors who had hosted the North Korean delegation traveled to the DPRK, where they met with farm mangers and visited apple orchards with their North Korean colleagues. During this visit, the OSU team determined how to cut pesticide use by more than 50%. They also made suggestions on how to protect the fruit-bearing potential of the trees. The respect was mutual; the OSU professors "were impressed with the commitment and knowledge of these farm managers who were tasked with managing nearly 70% of the North Korean apple orchards."[79] Similarly, NGO observers have long noted that farm managers in the DPRK respect the technical expertise demonstrated by true experts. The apple tree project has been central to building the DPRK-Mercy Corps relationship.

American Friends Service Committee

American Friends Service Committee (AFSC) started providing emergency assistance to the DPRK in 1995; by 1997 it had begun to establish relationships with individual cooperative farms.[80] In addition to providing material assistance to the farms in forms such as fertilizer, herbicides and plastic sheeting, AFSC began hosting delegations of DPRK agricultural specialists the same year.

As with other NGOs, AFSC's study tours build relationships through exchanges in both directions. AFSC has brought agriculture experts from the United States, Vietnam and China to the DPRK to conduct workshops, and has also brought delegations from the DPRK to the United States, Canada, China, and Vietnam, where they have studied a wide range of agricultural and animal husbandry topics. AFSC has worked with numerous universities and research institutes in these host countries to advance this work.

AFSC staff note that the impact of a study tour can be immediate:

> [D]uring one of the study tours to China, the DPRK delegation compared many animal breeding farms, from high-tech breeding plants for the European market to more modest facilities run by local farmers. After comparing requirements for establishing each kind of facility, the DPRK delegates selected the technique they thought was most compatible with conditions in their country.[81]

Stanford University and Christian Friends of Korea

One of the most interesting collaborations has been between the Stanford North Korea Tuberculosis Project and the NGO Christian Friends of Korea (CFK). This project began at the initiation of John Lewis of Stanford University's Freeman Spogli Institute (FSI). Lewis, an expert on U.S.-China relations and U.S. policy toward Korea, was aware of the severity of the TB epidemic in the DPRK. Following the release of the "Initial Actions for the Implementation of the Joint Statement" generated in a round of Six-Party Talks in February 2007,[82] Lewis wanted to explore a possible window for expanding academic exchanges and enlisted the collaboration of faculty from the medical school.

In January 2008, with sponsorship from Lewis (through the Center for International Security and Cooperation) and Gi-Wook Shin (the Walter H Shorenstein Asia-Pacific Research Center), Sharon Perry (Stanford School of Medicine) organized the Bay Area TB Consortium (BATC)[83] to host five officials[84] from the DPRK Ministry of Public Health (MOPH).[85] During their week-long visit to Stanford, the DPRK delegation met with Bay Area TB experts and specialists from the U.S. Center for Disease Control (CDC) and the World Health Organization (WHO). The delegation's visit resulted in the creation of Stanford's North Korea Tuberculosis Project, "which seeks to develop professional engagement opportunities with North Korea focused on mutual interests in tuberculosis control."[86]

During the visit, the MOPH and WHO invited Stanford's assistance in completing a national TB reference laboratory. In the absence of such a facility, only about 50% of tuberculosis cases are accurately detected, and patterns of drug resistance cannot be determined. A national TB reference lab was also needed to provide MOPH with the capacity to do national quality assessment, and link to other TB labs worldwide. Considered a critical step toward qualification for funding from the Global Fund to fight AIDS, Tuberculosis and Malaria, WHO and MOPH began in 2006 to renovate a site for the laboratory within the #3 TB hospital in Pyongyang; however, lack of funds brought the project to a halt.[87]

With the assistance of a former BATC member, Dr. Gail Cassell of the Eli Lilly Foundation, Stanford School of Medicine raised funds through the Global Health and Security Initiative of the Nuclear Threat Initiative to purchase a WHO-approved inventory of TB equipment, reagents and supplies. To assist with the completion of physical renovations, in-country visits, logistics, and U.S. export licensing requirements, the Stanford project established a memorandum of understanding (MOU) with Christian Friends of Korea. Because CFK had been supporting TB facilities in the DPRK since 1997,[88] the organization's longstanding relationships with both the DPRK's MOPH and the U.S. Department of Commerce proved a vital asset to the project overall. CFK managed in-country delegations and arranged for

volunteer construction teams. In addition to the funds raised by Stanford, CFK contributed over $300,000 through its private donor network to renovate the laboratory and ensure its connection to 24-hour electricity.[89]

In October 2010, the new 13-room, 2500-square foot facility, outfitted with laboratory equipment and supplies recommended by the WHO, was officially opened. One reason for the project's success may be that it was clearly identified as a priority by the North Korean MOPH and TB clinics in the DPRK.[90] From its beginning, the project has had an integral knowledge sharing component:

> Over 30 different MOPH personnel worked in tandem with US work teams in all phases, and 14 North Korean physicians and technicians have participated in orientation workshops and training self-assessments organized by Stanford/BATC expert laboratory teams.[91]

Since April 2009 partnership representatives have made nine visits to the DPRK for site assessment, equipment delivery and installation, as well as the first rounds of lab technician training. The next phase of Stanford's project would create opportunities for academic exchange, enabling MOPH officials to study at Stanford and receive Stanford researchers in the DPRK to develop study programs focused on mutual interests such as the containment of drug-resistant strands of TB.[92]

This collaboration is unique in a number of ways. Significantly, the first DPRK delegation to the United States had the capacity and authorization to discuss cooperation on TB. This level of dialogue is beyond the expectations of a first visit, which is usually at a more basic "study tour" level. Such a delegation likely would have been impossible without the longstanding relationship between Lewis and the DPRK Ministry of Foreign Affairs. In addition, Stanford's involvement of WHO and the U.S. Center for Disease Control may have given the invitation greater credibility in the eyes of the North Koreans.

Second, in pursuit of this goal, Stanford was willing to undertake a substantial, costly project.This is an unusual early step in academic exchanges. However, medical schools are more likely to initiate and support such projects than other university schools or colleges.

Finally, the project represents an unprecedented level of cooperation among a major U.S. medical institution, U.S. NGOs, the DPRK's MOPH, and world health authorities to address a major public health priority. TB program development is above all interdisciplinary, and such collaboration is an integral component of program development in other parts of the world. Rather than initiating the project on its own, Stanford sought an NGO partner with on-the-ground credibility and knowledge of humanitarian project implementation in the DPRK, including problem-solving expertise at the project level. This is the reverse of what the common model had been up to this point, wherein an

NGO would seek outside expertise from institutions such as universities to implement a program. While often tremendously beneficial, this partnership also created bureaucratic challenges. Typically, the two institutions would work with different North Korean counterpart organizations.

The project hopes to support the establishment of external technical assistance and develop exchange opportunities between the DPRK's MOPH and Stanford.[93]

The Asia Foundation

The Asia Foundation (TAF) is a development organization with offices in 18 countries in Asia.[94] Its goal in North Korea is to "strengthen the DPRK's human and institutional capacity for improving living standards and shifting to a sustainable development track, while encouraging an open and peaceful relationship with the world community." TAF sees itself as a facilitator of dialogue and exchange between professionals in North Korea and their counterparts in the United States and Asia. Rather than focusing on a single topic, TAF has responded to North Korean program requests that "potentially contribute to addressing development problems."[95] TAF has implemented programs on legal issues, agriculture, and English teaching methodologies. TAF prefers to host delegations in the United States as a way to build relationships and facilitate participation in Track II dialogues. However, TAF has also organized programs in China and elsewhere in Asia when such a venue best suited program objectives.

Partnering with other organizations allows TAF to augment its expertise and leverage its resources. Between December 1998 and April 2001, TAF sponsored four training seminars in Beijing and Shanghai on International Trade Law. The 12 to 15 DPRK participants at each session discussed contract law, international commercial arbitration, bankruptcy law, company law, and other issues related to international trade. Jerome Cohen from New York University Law School coordinated instructors from NYU, the University of Washington, and Chinese universities and law firms to lead each session.

In 2000, TAF arranged for three DPRK IT specialists to participate in a joint Unicode international working group on converting Korean-language characters into standardized machine language held in the United States. Two years later, TAF hosted officials and staff of DPRK's Grand People's Study House and several universities to study library and information science facilities, technology, and practices. In the same year, TAF brought a delegation of senior officials and staff of the Pyongyang University of Foreign Studies (PUFS) to the United States to visit English as a second language (TESL) programs at several major universities.

TAF also brought DPRK delegations to the University of California-Davis and Cornell University to study agriculture. TAF's relationship with Cornell University has been particularly productive, and has led to Cornell

professors visiting the DPRK on three occasions. Cornell and TAF have attempted to "create the framework for a more formalized institutional relationship between the College of Agriculture at Cornell and the Academy of Agricultural Sciences of the DPRK."[96] When direct exchanges between the DPRK and the United States became difficult after 2008, TAF worked with the China National Rice Research Institute in Hangzhou to facilitate and support an agricultural exchange program that included both Cornell faculty and Chinese scientists.

An important factor in maintaining continual contact and generating goodwill with the DPRK has been TAF's books donation program. Since the mid-1990s TAF has sent annual contributions of English-language textbooks and journals to the Grand People's Study House, the Agricultural Academy, PUFS, and other universities. The total number of contributed items has reached over 150,000.[97]

Cornell University

The cooperation between scientists and administrators from the DPRK and Cornell University (CU) from 2000 to 2010 has been substantial.[98] In order to pursue its interests in academic exchanges with the DPRK, Cornell's International Programs/College of Agriculture and Life Sciences (IP/CALS) has worked with two facilitating partners, TAF and AFSC. In 2000, Cornell sent a shipment of cold-tolerant apple, grape, and strawberry lines to the Fruit Research Center located near Pyongyang, recognizing the similar winter weather patterns of upstate New York and the DPRK. The Center's director made annual follow-up visits to Cornell between 2000 and 2002. Cornell also hosted delegations of three to four North Korean scientists for visits on horticulture and plant sciences topics: tree fruits, grapes, entomology, and plant breeding. Then, in April 2005, the DPRK Mission to the UN invited Cornell to meet with a delegation from the DPRK to discuss the next steps in building cooperation, including expanding the length of the visits to Cornell. Although the meeting ended "with a feeling of optimism," there was no immediate follow-up and, so far, no clearly identifiable outcome.

Late in 2005 the DPRK Academy of Agricultural Sciences (AAS) expressed further interest in soil science. John Duxbury, from Cornell's Department of Crop and Soil Sciences, visited the DPRK, and six North Korean scientists made a follow-up visit to Cornell. Again, discussions centered on potential areas of collaboration, including extending the duration of the visits to Cornell to three to six months. Also in 2006, James Haldeman, the Associate Director of IP/CALS, visited the DPRK to discuss the administrative procedures for an extended DPRK visit to Cornell. In discussions with the DPRK AAS four areas for collaboration were identified: biotechnology, information technology, plant protection, and agricultural information. That year, Cornell sent rice seeds to the AAS, while the Agriculture Experiment Station in Geneva, New

York sent apple rootstocks. Unfortunately, this was followed by a gap in communication of several years.

In March 2009, through TAF assistance, Dr. Norman Uphoff, former director of the Cornell International Institute for Food, Agriculture and Development and leader of the System of Rice Intensification (SRI—a methodology for increasing the productivity of irrigated rice cultivation) at Cornell, and James Haldeman were invited to the DPRK to discuss SRI and re-open discussions regarding three-month visits by DPRK scientists to Cornell. A health emergency and logistical problems resulted in the cancellation of the visit; however, the interest in SRI remained strong. In February 2010 the China National Rice Research Institute planned and conducted a workshop on SRI in Hangzhou, China. It was supported by the Asia Foundation and included participation by representatives from the DPRK and AFSC. AFSC and TAF arranged further programming for DPRK participants in China and Vietnam.

Meanwhile, in 2009, Cornell presented, with TAF support, the DPRK with TEEAL—the Essential Electronic Agriculture Library—"a compact, self-contained agricultural library" that contains 15 years of articles from 149 journals of the agricultural science.

In Haldeman's perspective,

> [T]here is a difference of opinion with regard to the level of success. Success is a relative term and needs to be measured on a small scale. Three examples of success include the delivery of TEEAL, the shipments of apple and grape stock to the DPRK, and the SRI workshop held in China. TAF was instrumental in facilitating all of these activities. However, we at Cornell have seen and experienced many roadblocks that are preventing us from engaging in a more meaningful and productive way.[99]

AFSC, however, might have found Cornell's expert participation invaluable for its contribution of scientific expertise at an opportune moment. As Haldeman notes, AFSC and TAF both continued to work successfully with North Koreans on this topic.

Yet such a contribution does not necessarily lead to further academic exchanges, which is ultimately Cornell's goal. Haldeman identifies six constraints to achieving this goal, primarily related to communication: little sharing of information among and between organizations and institutions; the inability to communicate with North Korean scientists via email; language barriers, especially when non-scientists filter and translate scientist-to-scientist requests; the inability to communicate directly with farmers and farm managers in the field; and long lapses in communication (sometimes as long as three years). All of these communication constraints result in the greatest constraint, the inability to develop "good personal links" with "key individuals within the university system and agriculture research establishment. It has been nearly impossible to establish long-term,

productive relationships."[100]

Yet Cornell is willing to propose some creative solutions, especially to address the current difficulties in extended visits to the United States. This would not be unique; Cornell has adapted its programs to meet the special conditions of other countries. For example, Ethiopian students can earn a one-year masters of professional studies without attending classes at Cornell, and graduate students in Africa, South Asia, East Asia and Mexico can access Cornell classes and curriculum through its transnational learning program.

Haldeman has outlined a path of increasingly deep exchange programs between the DPRK and the United States, beginning with the development of certificate courses lasting two or three weeks that could be conducted inside the DPRK. Haldeman also emphasizes the importance of continuing to welcome DPRK professionals, individuals or delegations to Cornell, stressing the "huge intellectual talent" in the DPRK and the importance of "establish[ing] an environment in which a true partnership can be realized that would provide opportunities to train scientists."[101]

Syracuse University and the Korea Society

The Syracuse University-Kim Chaeck University of Technology relationship is unique in the U.S. context. In this case, as in the Stanford case, there was a strong interest within the university, generated by staff and a legacy of work in Asia, including on the Korean Peninsula. The program, initiated by Thomas Harblin, then Vice President for Global Development for Syracuse University (SU), and Stuart Thorson, began in 2001.[102]

According to Thorson and his colleagues, high-speed digital networks have dramatically changed the practice of university science: "North Korea and its universities are not significant players in any of these contemporary networks. Many of their academics are aware of this…and this awareness has led to a willingness to build collaborative exchanges with other major research universities—even those in the United States."[103] As a first step, Harblin and Thorson consulted with experts at the Korea Society (TKS), Ambassador Donald Gregg (then the TKS president) and Fred Carriere (then the TKS vice president and executive director). The Korea Society is an organization founded to increase understanding and cooperation between the United States and Korea. At that time, the Korea Society was beginning to increase its involvement and interest in the DPRK. The meeting was very positive and in the several months following the meeting, the two institutions forged a partnership based on diverse strengths, common objectives, and similar criteria for success. Until recently, the KCUT-SU bilateral relationship and collaboration was facilitated by TKS.

TKS arranged a meeting between SU and the DPRK Mission to the UN. Following this successful meeting, SU invited representatives from the Mission to visit its campus for a visit with its chancellor at the time, Kenneth Shaw. The

meeting went well, in part due to protocol advice from SU adjunct professor Jongwoo Han. As a result of these high-level conversations, KCUT, the most prestigious science university in the DPRK, was selected by the DPRK as a suitable partner for SU.

In the context of U.S.-DPRK academic exchanges, the relationship deepened quickly. Since that first visit eight years ago, there have been 16 exchange visits, to Syracuse University, Pyongyang, and Beijing.[104]

The first KCUT visit to SU in March 2002 was led by KCUT Vice Chancellor Jong Kwan Chon. The high level of this delegation paralleled the first SU visit to the DPRK Mission and heralded a similar level of commitment. At this first meeting, SU and KCUT discussed mutual goals of establishing collaborative research in information technology. It was agreed that "the objective was serious research exchanges and not mere study tours. This meant it was important to have continuity in the makeup of both the KCUT and SU research teams."[105] A core group of SU researchers and the director of KCUT's Information (Computer) Center have participated in all exchange programs to date.

Another central agreement was that the two sides would strive to share information between visits, despite the technical and political difficulties involved. Thorson et al. note that "In this regard the importance of the effective facilitation of communication by both the DPRK Mission and TKS cannot be overstated."

A science delegation from SU visited KCUT in the summer of 2002. During that visit the two sides "agreed to expand resource commitments under a written plan which established the leadership of a KCUT-SU Joint Coordinating Group." Later that same year, KCUT made its second visit to SU, where an agreement was made to send North Korean researchers to SU the following spring. Their goal was explicitly defined to be collaboration, not technology transfer. They agreed to work together "on projects including digital libraries, machine translation, and decision support."[106] SU later learned that in September 2001 Kim Jong-il had visited KCUT and "formally advised the university to construct a digital library."[107]

In April 2003 a team of five North Koreans traveled to the United States for one month of "intensive research collaboration" with SU counterparts. At the end of this first research collaboration, the participants wrote a joint research paper that was presented at the Asian Studies on the Pacific Coast Annual Meeting that summer.[108] A week-long delegation visit to SU in March 2004 culminated in the presentation of scholarly papers by both KCUT and SU scholars.

The research focus for these years was on developing open-source software that could be used for a digital library. As Thorson notes, the decision to develop a digital library according to international standards is a commitment to future engagement with the global science community:

> As a consequence of their adoption of international standards, the KCUT digital library, now completed, is in a position, with the appropriate Internet connections, to share data with other digital libraries around the world. Thus these research exchanges do affect scholarship and practice.[109]

The KCUT digital library model is now being replicated by other DPRK institutions, including Kim Il-sung University. Not only does this replication support institutional networking within the DPRK, but it also will allow these institutions to communicate with the rest of the world.

In addition to digital libraries, SU and KCUT have developed the Multilateral Regional Scholars and Leaders Seminar program (RSLS), which is "designed to develop future leaders who share a commitment to information sharing, collaboration across boundaries," and the establishment and maintenance of standards-based modes of trusted communication."[110] In addition to SU and KCUT, this program involves Huazhong University of Science and Technology in China and the Pohang University of Technology in the ROK. To date the RSLS program has focused on technical English programs, as well as presentation skills for participation in international scientific meetings. The 20-person DPRK delegation is primarily from KCUT, with representatives from the FDRC and KAPES as well.

An exciting offshoot of the RSLS program developed when an RSLS "graduate" was named Director General of the Information Technology Department at the DPRK Ministry of Education. She consulted with SU on DPRK's participation in the ACM International Collegiate Programming Contest, and together the Ministry of Education, TKS, and SU discussed training needs, including access to the Internet. Three DPRK teams participated in the contest in 2006 and performed well, though they were not able to progress to the next level. The following year, SU and TKS helped the DPRK teams to further their preparation with a workshop in technical English and contest preparation. This time, one of the three teams qualified for the World Finals, taking one of the hundred spots coveted by 6,700 teams from all over the world.[111]

In 2005, SU and KCUT agreed to establish "twin research lab" facilities at their universities—contingent on U.S. government approval of the necessary licenses. However, these licenses have not been approved. Another unrealized goal is the exchange of junior scholars at SU and KCUT; long-term studies have yet to be approved. During a 2010 trip by KCUT Chancellor Hong to SU, there was further discussion regarding an exchange of researchers, as well as discussion of a "green data center" which would seek energy-efficient ways to execute computer computations and explore ways to build facilities with resource constraints.

The relationship continues to generate further partnerships: Chancellor Hong invited SU Chancellor Cantor to bring a delegation of university presidents to the DPRK to meet with their North Korean counterparts, which

will be an opportunity to encourage other research universities to consider and pursue programming with the DPRK.

Although on the surface, this relationship may seem similar to the Stanford-CFK partnership, it is different in several ways. Stanford and CFK had independent relationships with the DPRK, and their partnership challenges included working around the different DPRK "stovepipes" for universities and NGOs. Unlike CFK, TKS had no in-country programs. However, its positive relationship with the Mission, enhanced by collaboration with the two universities, facilitated communication between SU and KCUT.

The US-DPRK Science Engagement Consortium

A further project has grown out of the SU-TKS collaboration. The U.S.-DPRK Science Engagement Consortium was created in 2007, when CRDF Global (formerly known as CRDF) and the American Association for the Advancement of Science (AAAS) joined with SU and TKS to expand "academic science engagement with the DPRK by working closely with both governments, university stakeholders, and with both countries' scientific establishments."[112]

The idea for the Science Engagement Consortium developed following a 2007 AAAS Annual Meeting panel on science engagement with the DPRK. That August, following a May workshop focused more narrowly on academic partners and would-be partners with the DPRK, the consortium was formed. CRDF Global, established in 1995 to "promote peace and prosperity through international science collaboration," houses the consortium's secretariat.

The consortium determined that the first step was to educate the government and science communities in both the DPRK and the United States about the value of DPRK-US bilateral scientific engagement. Beginning in 2008, representatives of the DPRK Mission to the UN have been invited regularly to participate in the annual AAAS meetings, where they could learn about U.S. science engagement opportunities.

These meetings also were an opportunity for the DPRK, AAAS and CRDF to become more familiar with one another's interests and organizational structures. In addition, the consortium overcame logistical obstacles to ensure that AAAS's prestigious journal, *Science*, arrives regularly in the DPRK.

In the United States, the consortium focused its attention on meetings with scientists, members of Congress, and the administration, "helping policy makers understand how science engagement is different from humanitarian assistance and security engagements" and thus recognize the unique role science engagement can play in apolitical relationship building. The consortium also emphasized that "scientific engagements would focus on areas of mutual benefit and not focus on science areas that could be dual use."[113] In addition, the consortium does not work on any type of security topics.

In 2009, the DPRK State Academy of Science (SAOS) extended an

invitation to the Science Engagement Consortium for further discussion. In December 2009, Dr. Peter Agre—Nobel laureate, university professor, director of the Malaria Research Institute at the Johns Hopkins Bloomberg School of Public Health, and 2009-2010 president of AAAS—led a six-member consortium delegation on a six-day visit to Pyongyang. The visit was successful, with an itinerary that included visits to SAOS, the University of Sciences, the Institute of Thermal Engineering, the State Commission for Science and Technology, and the Pyongyang University of Science and Technology (PUST). This schedule, tailored so closely to the mission of the delegation, demonstrated the high level of DPRK interest in learning more about the potentials of science engagement.

An MOU was negotiated on the final day that identified shared research priorities, outlined the intention to host regular reciprocal science delegations between SAOS and the Science Engagement Consortium, and stated the plan to conduct joint training sessions and workshops on topics such as science-specific English and the identification and development of talent. The two sides also agreed to conduct joint training sessions and research on areas of mutual interest, contingent on securing funding. As an outgrowth of the SU-KCUT collaboration on digital libraries, the Science Engagement Consortium will explore the possibility of establishing a virtual science library. Finally, the MOU indicated joint publications as a topic for future sub-agreements. Both parties signed the MOU the following year.

The Science Engagement Consortium will continue to focus on technical English language training and other capacity-building measures and providing resources such as *Science*, textbooks, and curriculum development materials.

The Science Engagement Consortium envisions itself becoming a central coordinating body for DPRK-U.S. scientific exchanges and assisting universities that would like to be engaged.

Comparison Case Study: The United Kingdom

As noted previously, other Western countries have had far more extensive academic exchanges with the DPRK. The United Kingdom provides an interesting case study. The British Council, a quasi-governmental organization,[114] administers what has until recently been the most successful English language program with expatriate teachers. (It has recently been superseded in the number of English teachers by the English Language Program at PUST.)

Its roots are long: discussion about an English language program began in 1997 and the program was inaugurated in September 2000, preceding the establishment of diplomatic relations by two months. The first two teachers were assigned to Kim Il-sung University and to Pyongyang University for Foreign Studies (PUFS). The number of teachers was increased to three in September 2001, with the third assigned to teach at Kim Hyong Jik University.

At first the program was administered by the British Council office in Beijing, but is now administered by a coordinator/senior trainer based in Pyongyang. It is run "as a partnership between the British Foreign and Commonwealth Office (FCO) and the British Council with shared funding," although it is recognized as separate from embassy activities.

The DPRK has been enthusiastic about the teachers—so much so that competing demands for the teachers were initially difficult to manage during periods of understaffing. The British Council has also had to work with their North Korean counterparts to distinguish between educational supplies essential to running their own classrooms with material inputs for the institutions as a whole (such as photocopiers).

By DPRK request, the UK teachers have begun to experiment with internationally published materials that cover topics such as international law. They are also occasionally able to visit universities outside of Pyongyang, which appears to have a lasting impact on the schools they visited.

In addition, the British Council has sufficient funding to send a small number of North Korean teachers and Ministry of Education personnel to the UK for study. This opportunity is not always utilized, although the DPRK has asked that this project be expanded.

Although the British Council program stands out as the longest running project, it is by no means the only successful UK knowledge sharing project. The British Embassy also sends DPRK officials to the UK for English language study; participants tend to be from the Ministry of Foreign Affairs. The UK has hosted North Korean students in the UK on a variety of topics. Generally, the North Korean students do well, work hard, and get good reports from their instructors. However, finding students with sufficient English language ability has been a challenge.

Designing and Implementing Effective Programs

As explored above, U.S. and DPRK practitioners in educational exchange have achieved some notable accomplishments. The first digital library in the DPRK was created at KCUT, with a meta-data system that allows it to connect with libraries around the world. Jointly run agricultural experimentation has increased the use of double-cropping and soybeans in the DPRK. TB laboratory technicians have been successfully trained at the DPRK Tuberculosis Reference Laboratory. Many other achievements not noted in the case studies are also improving the lives of North Koreans, such as training for dentists and laparoscopic surgeons. And in many cases significant personal relationships have been established between North Korean and American participants.

These examples suggest that it is possible to draw some general conclusions about what constitutes success and how best to achieve it, particularly in light

of the pitfalls and constraints identified earlier in the chapter. This section examines different stages of program development and comments on what has worked. Unless otherwise specified, the comments below pertain to all types of educational exchanges with the DPRK, not just academic exchanges.

Building the Foundation of a Good Program

Setting the Agenda/ Selecting Subject Matter

Good programs evolve from good planning on the part of the host, partner organizations, and DPRK counterparts and the establishment of clear goals and objectives.[115] As in all cases of international cooperation, the most successful program is one that is designed around shared goals rather than those predetermined by one organization. For instance, pursuing research topics that have been identified as national priorities increases DPRK investment in the project and the likelihood of success. In addition, when discussing capacity-building projects, practitioners have found that it is useful to stress the tangible results of such projects.

Programming has been most successful when U.S. practitioners listen carefully to the priorities stated by their counterparts and incorporate both those priorities and their own organizational missions in joint program planning. As noted above, the SU-KCUT program has been successful in part because it corresponds with DPRK priorities.[116]

When faced with a DPRK request for either programming or a material input that falls outside of program parameters, the U.S. institution must consider the flexibility of its mission and whether it can accommodate the request in pursuit of its own mission and objectives. Perhaps it is easiest for an NGO to respond positively, because in most cases the request is beneficial to the DPRK populations served by the program, and the NGO can develop the capacity or resources to provide the input. It is more of a challenge when the request is not closely related to the organization's mission. Reed recommends providing DPRK counterparts with an acceptable "menu" of topics and then proceeding with those that the DPRK organization selects.[117]

However, organizations should not contort themselves to meet needs that they do not have the capacity to address. At times the DPRK may ask U.S. practitioners to consider implementing programs that are not part of their organization's core mission.[118] Sometimes such a request is made because a technological advancement has been identified as national priority under the belief that it will contribute dramatically to resolving a problem.[119] Such priorities can result in many DPRK agencies seeking the same solution from multiple outside actors in a "bidding war." Getting involved in this sort of blind competition can be particularly detrimental to an organization if it reaches too far beyond its organizational capacity in order to compete, wastes resources developing a program plan in a losing "bid," or damages

its credibility in the DPRK if it fails to deliver adequately. Straightforward communication with DPRK partners helps to avoid these outcomes.

Securing High-Level Institutional Commitment

The benefit of high-level commitment for all parties involved in a project cannot be underestimated. For NGOs and foundations, this might mean commitment at the presidential, vice presidential, and board level. Within universities, commitment at the presidential or chancellor level has resulted in dialogue at the same levels within the DPRK, greatly facilitating project development. One practitioner commented,

> Internal to our organization, we have a challenge in collectively understanding the DPRK context and appropriate goals and strategies for engagement…. Our requirements for program design, monitoring, and evaluation are standardized across countries, and it is difficult to be creative in planning and management…. The DPRK is almost always the exception to these practices and our operational context and goals need to be explained and re-explained to our leadership.[120]

When the organization's leadership does not have a high level of commitment, program suspension due to political tensions becomes more problematic, fundraising for DPRK programming becomes less of a priority, and dialogue at an effective level within the DPRK becomes more difficult to achieve. When an institution puts forward an ultimatum, such as a minimum length of academic study, it is likely to hit an obstacle. High-level institutional commitment increases the likelihood that the organizations can accommodate bumps in the road, such as a failure to meet a goal within a stated timeframe.

Commitment must be cultivated among all the actors, even those whose influence is only political. One practitioner notes that solid programming is built on a foundation of six or seven months of consensus building.[121] This practitioner starts by getting a firm commitment from the university, going all the way to the top to confirm that the president is fully behind the project. Only after that commitment is secured does planning begin with the DPRK. After plans are made with the DPRK, the practitioner informs the ROK so as to ensure that there are no objections that might delay or challenge the implementation of the project. Then the funding institution must be cultivated. Finally, the practitioner consults with the host government, presenting the consensus of the other parties.

While not every practitioner would consult with all of the parties named above or follow this exact order each time (in some political climates an early consultation with the host government would precede communication with the DPRK), there is a universally acknowledged need to build agreement about objectives, modalities and resources step-by-step.

Establishing Relationships

Every successful American practitioner points to a solid relationship with relevant DPRK entities as the most important component of a successful knowledge sharing program. One of the most important ingredients in relationship building is time. Over time, all parties develop a better understanding of the issues that they are addressing, the cultural contexts for addressing those issues, and how best to interact with one another. As the SU-KUCT example demonstrates, working consistently with a core group of participants allows for person-to-person relationships to flourish.

Building relationships includes ensuring that there is time set aside during visits for those involved in the project to take part in recreational or culturally meaningful activities together. These non-work activities will obviously have a different flavor in different countries. Demanding a schedule inside the DPRK exclusively focused on work may backfire by eliminating opportunities for strengthening the relationships. An enlightened funder will recognize and support these kinds of activities.

The experience of NGOs demonstrates the important role of relationship building. One reason that U.S. NGOs at times have deeper relationships with the DPRK than U.S. educational institutions do is that the NGOs have made multiple visits to the DPRK and hosted multiple exchanges in the United States or even third countries. NGOs must visit the DPRK at regular intervals as a necessary part of program implementation. For academic institutions, the "need" to visit is far less obvious or well established. This pattern is self-reinforcing. An entity that visits the DPRK frequently is more likely to have a visit quickly approved by the DPRK than an entity that visits less frequently. As trust develops over time, requests that would have been denied in earlier years are granted.

This pattern holds in the United States as well. When politics allow for the approval of visas for North Koreans, an entity that is familiar to the U.S. government and familiar with U.S. government processes will likely have an easier time answering questions and providing necessary documentation. That entity will also be more cognizant of export control regulations affecting the shipment of materials.

Academic institutions may find it more difficult to identify opportunities to visit the DPRK and host delegations in the United States. Haldeman identified Cornell's inability to communicate directly with farmers as a key constraint: "If the faculty at Cornell are to make any significant and relevant contributions it will be very important, and necessary, for scientists to visit farmer cooperatives."[122] When professors have an opportunity to visit the DPRK, and particularly to get into the field to discuss agricultural topics with the farmers themselves and witness their techniques in situ, the ability to instantly identify achievements and challenges not only facilitates problem-solving but it also accelerates relationship building and trust building,[123]

thereby increasing the likelihood of further exchanges.

However, it takes time and ingenuity for a university to overcome such a constraint, since it would take multiple visits to a farm to develop a relationship in which mutual knowledge sharing would take place. Different North Korean counterpart agencies oversee North Korean relationships with U.S. universities and with U.S. NGOs. It would be easier, for example, for Mercy Corps to bring apple specialists to visit the orchards that are part of their ongoing project than it would be for a U.S. university to visit a farm with which they have no programmatic relationship. On the other hand, Stanford School of Medicine, because of its involvement with the TB Reference Lab Project, had a programmatic need to make multiple visits to the DPRK as the project proceeded.

Yet a U.S. university, at the very least, might be able to conduct joint research with the Academy of Agricultural Sciences and thereby arrange regular visits, if only to AAS research farms, as determined by the seasons—planting or harvest, for example.[124] Other academic topics do not lend themselves as easily to opportunities for in-person consultation with one another. Academic institutions might consider, in the program development stage, ways to build the relationship with their DPRK counterparts by identifying points in the project development that would lead organically to visits in one or both countries.

Because of competition within the DPRK, it is difficult for most U.S. universities and NGOs to work with more than one or two North Korean universities.[125] There are few ways to research possible counterparts so it is challenging to learn which programs are strong at a given university or research institute. High-level discussion within the DPRK, perhaps through a consortium such as the U.S.-DPRK Science Engagement Consortium, might yield more information about the strengths and interests of various North Korean universities.

Selecting the Right Participants

Knowledge sharing exchanges are useful only when the right people participate: people in the appropriate fields with the right background and sufficient ability and personal skills to interact with their counterparts.[126] As Ireson points out, the DPRK is quite good at composing delegations, in comparison with other countries.

DPRK skill at selecting the right participants for delegations is essential, because in general U.S. practitioners have only limited ability to request specific DPRK participants or meeting them in advance of a trip. Although U.S. practitioners are able to suggest that participants have certain educational backgrounds or expertise, they are seldom provided with information about the composition of a delegation until visa requests are made. (Practitioners from other countries are increasingly able to meet with potential DPRK

participants in advance, and at that time administer tests, particularly for language ability.) Some organizations make formal or informal agreements to work with the same core group of participants, which coincidentally provides advance information on the delegation.

Every North Korean delegation includes a guide or coordinator, usually from the government agency that serves as the delegation's official host or facilitator (for example, KAPES). If this coordinator is somebody who has frequently traveled abroad or accompanied many American delegations inside the DPRK, he or she can be a good problem solver and may provide useful suggestions on how to make the program run smoothly. As Ireson notes, when agencies work with the same guide over a number of years, that person often develops "both knowledge of technical terminology and a genuine interest in the subject matter of the assistance programs."[127] When the rest of a delegation from the DPRK is making its first trip to the United States or when a delegation to the DPRK includes many first-time visitors, the role of this coordinator becomes even more important.

In composing the American team, especially those headed to the DPRK, practitioners might consider the inclusion of people who have won universal respect, such as former ambassadors and Nobel laureates. The DPRK responds positively to formerly highly ranked government officials, because of their assumed access to the U.S. government. Policymakers and funders in the United States also seem to respond positively to such influential figures. It is reassuring when a high profile or high-status figure puts a stamp of approval on a project through his or her involvement. Of course, such involvement should be based on the individual's genuine and enduring interest in the project. Conversely, some practitioners note that bringing a dignitary to the DPRK can create so much additional protocol that his or her inclusion can "get in the way" of program work; the inclusion of such figures should be considered strategically.[128]

Korean American participants make invaluable contributions at all stages of a program, from the planning stage forward.[129] In many cases Korean Americans provide the motivating inspiration for programming, though initially their role may be less prominent. Korean Americans provide invaluable cultural advice as well as cultural links. However, Korean Americans and Americans of other ethnicities may have different analytical frameworks based on different experiences, and this may cause friction. While of course this dynamic might be present in single-ethnicity teams, the tension can be more charged if ethnicity is involved.

Mixed-ethnicity teams can be extremely challenging for the DPRK, since ethnic Koreans and other foreigners work with different counterpart agencies in the DPRK. Even at the DPRK Mission to the UN, one person is designated for non-official contact with Korean Americans while several others may be designated for non-official contact with other Americans. Therefore, arranging

for a mixed group to meet with delegations from the DPRK or a Mission representative without providing the DPRK counterparts with advance notice can be detrimental. Similarly, receiving permission for a mixed team to visit the DPRK can be difficult, especially in the early stages of a relationship.

It takes time and patience working with the primary North Korean counterpart agency to win approval for a mixed team. The lead U.S. practitioner might need to explain over time the role that such a person plays in their organization and the necessity of that person being included on their trips to the DPRK or in the events that they host. Once these mixed teams are established, they invariably have had an excellent track record for solid, creative, expanding programming.

The Role of Written Agreements

The process of jointly developing an MOU is an excellent means of understanding each side's interests, commitments, and obstacles. The drafting process goes most smoothly when participants are aware of language pitfalls. (For example the term "committee" has political connotations in the DPRK, while the term "group" is a far more neutral word.) While the MOU ideally represents a long-term institutional commitment, it is important not to over-commit and to remember the practical and legal constraints that may make implementation difficult or impossible.

Most practitioners believe that an MOU is only as good as the relationship itself: in a strong relationship, it may become a valuable touchstone, whereas in a weak relationship, it may become a point of contention. While exhaustive discussions can be a positive part of the process, MOU negotiations that are antagonistic might be counterproductive. Written agreements should not take the place of informal communication to build trust.

Implementing a Good Program

Preparation

Good preparation and orientation for the visiting DPRK delegation itself should occur on both sides.[130] For delegations visiting the United States or a third country, DPRK participants need to know what to expect in terms of the overall agenda, the schedule, and the mode of the different meetings—what kinds of interactions the participants might expect and what might be expected of them. At the same time, partner host organizations need background information on the DPRK, particularly information relevant to the topic, such as constraints and strengths of the DPRK system. Briefings should take place in person. Written material is insufficient, and busy hosts might not even be aware that the Korean Peninsula is divided. (One partner host warmly welcomed a North Korean delegation, then informed them that she drove a Hyundai.)

Evaluation

Equal care should be taken at the end of a program. Evaluations are beneficial not only in deepening the results of the exchange but also in preparing for future iterations.[131] At the very least there should be an oral evaluation at the program's conclusion. In addition to trying to remain in touch with participants from previous programs, it is useful to invite former participants to act as resource people on subsequent trips.

Accommodating Changes

A program's success depends on its ability to adapt to unanticipated changes in plans. For example, as noted above, the DPRK at times has sent an educational delegation partly or primarily for political purposes. When the U.S. host and funder are flexible and can see the conflation of objectives as one of the costs of working in a politicized context, they might even appreciate that the trip to the United States has been utilized in additional ways. But if an organization has a narrowly defined mission, such an overlap might weaken the relationship or be problematic for the funder.

Sometimes a central aspect of the program may stall. For instance, the SU-KCUT Junior Faculty and Leadership and Development Program has not yet been implemented. SU scholars have hypothesized several explanations for the delay. Primary among them is the fact that SU was unable to secure U.S. licenses to export equipment for the SU-KCUT "Twin Labs." The U.S. partners wondered if North Korea took this as "a sign that the science engagement had failed to produce the promised results."[132] They further explore this rationale as follows:

> [For] some in the North this may have signified a failure to honor a promise. In a country like North Korea, where needs often far exceed the available resources, it is understandable that a higher priority may be placed on the one-way provision of material resources.... Or, at least, the two aspects are perceived to be intertwined.[133]

At the same time, SU developed equally plausible explanations: the proposed time period was perceived by the DPRK as being too long; the first delegation of scholars would have coincided with a large-scale U.S.-DPRK exchange that temporarily took priority (that is, the visit of the New York Philharmonic to Pyongyang); and the DPRK did not want to jeopardize the delicate nuclear negotiations taking place at that time.

It is clear that the tensions are specific to the DPRK's relationship with the United States, since North Koreans were already participating in extended research projects in other countries. Meanwhile, however, the inability to move forward on this significant part of the SU-KCUT plan has not impeded other areas of the programming. This underscores the importance, noted earlier, of having multiple projects as part of an overall program.

The SU-KCUT case also highlights the value of keeping an open mind. SU did not base its relationship with KCUT entirely on the inauguration of the Junior Faculty and Leadership Program. Importantly, practitioners at SU entertained a number of plausible reasons for the delay, allowing both partners to continue to work toward the project's implementation rather than becoming mired in face-losing debate. Meanwhile, the DPRK, though likely frustrated by the collaboration's failure to deliver the Twin Labs, has not allowed that disappointment to have a negative impact on the rest of the joint programming. The possibility of an exchange of junior faculty is still on the table; it was again a central topic of discussion during last year's visit by KCUT Chancellor Hong to SU.[134]

The American Context

It would be an understatement to call the U.S.-DPRK relationship complex. For some practitioners, the history of the Korean War is at the core of the relationship. As one practitioner put it, "We're asking North Koreans to learn from their bitter enemy; this is a huge obstacle that must be kept in mind. Americans are still perceived culturally and therefore subconsciously as the enemy, even if on personal levels the relationships can be fine."[135] Yet this enmity may also explain why some practitioners feel compelled to work with the DPRK, much as Vietnam War veterans became advocates for reconciliation with Vietnam.

Furthermore, some observers believe that North Koreans admire the United States as a world power, partly because the DPRK also aspires to be a significant power. Due to shifting relationships with other countries, especially China and the ROK, the DPRK would ultimately like to strengthen its relationship with the United States.

However, despite this desire, the history of the Korean War and its legacy reverberate to the present day. Katharine Moon notes that one reason that EU nations have more programming with the DPRK may be the existence of diplomatic relations, which is inconceivable between the United States and the DPRK under current conditions. Official diplomatic relations necessarily increase the number of stakeholders in exchanges. Whether or not government funding is provided, the tacit government interest signaled by diplomatic relations creates a more positive atmosphere for program planning and implementation as well as fundraising from private sources.[136] Having businesses involved with the DPRK allows for cross-sector consultation and results in an environment in which the prospects for long-term study or technical exchanges are more viable. The impact would likely be felt within the DPRK as well. As Park and Jung put it, "Foreign relations seems to affect both demand (North Korea's willingness to participate) and supply (interest of host countries)."[137]

As noted above, the possibility of successful knowledge sharing programs

is contingent on the issuing of visas. Apparently the process for issuing visas has changed since the Soviet era; this observation might make present-day practitioners envious: "U.S. and Soviet nongovernmental organizations contributed to a Cold War thaw through scientific exchanges, with little government support other than travel visas."[138] Ideally, when relations are tense, countries draw a line between material aid programs (that might bolster the other government) and knowledge sharing programs. For example, a U.S. diplomatic cable released by "WikiLeaks" reported that then-Australian foreign minister Alexander Downer urged the United States in 2005 to withhold aid that could prop up the DPRK's infrastructure.[139] At the same time, though, the Australian government was funding the collaborative research on integrated pest management mentioned previously. (Subsequently, Australia issued a visa ban on North Koreans in response to the DPRK's WMD programs, and blocked the approval of visas for North Korean artists exhibiting work in the Asia-Pacific Contemporary Art Triennial.)[140]

However, many countries continue to allow North Korean delegations. Given circumstances in the United States, U.S. institutions must decide whether or not to hold or co-host knowledge sharing programs in a third country. One third-country approach is to visit other transitional states in the Asian region, such as China, Mongolia, and Vietnam. Another is to visit states similar to the United States but with less stringent visa policies. Hosting in a third country might meet some objectives, particularly those of an NGO trying to advance a particular area of technical expertise. Even so, as Ireson notes, it is simpler to arrange logistics, and to respond to accidents or sudden changes in plans, in one's own country.[141]

Most importantly, for those North Korean practitioners for whom the primary motivation is to build relationships with American individuals and institutions, hosting an exchange in a third country may be unsatisfactory. For a university eager to make connections among professors and students on both sides, holding too many exchanges in a third country could be a step in the wrong direction. Faculty time is limited, and far fewer faculty are able to travel to a third country than be involved in campus visits.

Some Americans have found that it is easier to become involved in knowledge sharing programs through organizations under non-American leadership. For example, the Choson Exchange, whose motto is "Building Trust through Academic Cooperation," is headquartered in Singapore. Yet three-quarters of its twelve-member executive team and support team are U.S.-educated and many are Americans.[142] The DPRK accepts Choson Exchange's multinational composition with apparent equanimity and has welcomed its initial initiatives, including training sessions "related to economics, finance, law and business" as well as plans to bring foreign students to study at Kim Il-sung University. The DPRK also responded positively upon learning that the "OpenCourseWare"[143] promoted by the Choson Exchange was developed

in collaboration with "big-name" American universities.[144] In fact, when DPRK Party Secretary Choe Tae Bok made a surprise visit to the Choson Exchange booth at the Pyongyang International Science and Technology Book Fair, where they were showcasing OpenCourseWare content and Wikibooks, he was so impressed that he "tasked the State Academy of Sciences and Kim Chaek University"[145] with integrating these resources into the DPRK educational system. However, while such a modality allows for the substantial involvement of *Americans*, it does not forge relationships between the DPRK and *U.S. institutions*, at least at this point.

Ideally, the United States should play a larger role in academic exchanges with the DPRK. This would require that United States to alter its visa policy. The Council on Foreign Relations Task Force stated that

> the Obama administration should adopt a visa policy that provides maximum space for nongovernmental forms of engagement designed to bring North Koreans to the United States for exchanges in a wide range of fields. Political approvals for cultural, sports, and educational exchanges should be approved on a routine basis.[146]

In addition, the U.S. government should consider providing funding for exchange programs. Surprisingly, for organizations with long-term contacts with the DPRK, there do not seem to be any negative impacts associated with receiving U.S. government funding. The DPRK may perceive such funding as evidence that the organization may have good contacts in Washington. And U.S. government funding is usually far beyond the scale of what NGOs and other institutions would be able to raise privately. Such funding may allow U.S. institutions to expand their programs, or develop their projects in new directions.

Republic of Korea

All U.S.-DPRK relations, including knowledge sharing exchanges, take place in the context of inter-Korean relations. This, in turn, affects the U.S. government's stance toward U.S. educational exchanges with the DPRK. As one practitioner put it,

> We need to move with a general sense of common purpose with the ROK, not necessarily as partners. However, we must acknowledge that the strongest periods of DPRK engagement have taken place when the United States and the ROK move in tandem.[147]

Not everyone supports this approach. The United States and the ROK have different cultural heritages, which should be respected as each government develops and implements its own policy. The United States' policy on knowledge sharing with the DPRK, particularly in humanitarian fields, should be made with sensitivity toward the ROK position, but on an independent basis. To do otherwise is to sacrifice a historical U.S. strength.

Unfortunately, South Korea is the only nation, with the possible exception of Japan, that has more difficulty than the United States in implementing knowledge sharing programs with the DPRK. However, those programs that incorporate South Korean partners find those exchanges enhanced on many levels by the technical, cultural, and linguistic expertise brought by the South Korean participants, as well as the intense dialogue that often takes place between South Korean and North Korean participants. For this and other reasons, some South Koreans recommend that other countries, including the United States, partner with South Korean universities and include South Korean participants in knowledge sharing programs.[148]

Such inclusions, of course, should be discussed carefully with North Korean counterparts. There are sensitivities about mixed-nationality delegations similar to those described above regarding American delegations of mixed ethnicity. If the North Korean delegation is caught by surprise, it may cancel its participation entirely.[149]

Strategies for the Future

As we prepare for the next years of knowledge sharing activities, the community of actors in the United States might constructively consider how it selects and supports its programming, how it sets objectives and defines success, and how it shares information.

Identifying Focus Areas

Future focus areas might be weighed in the context of political sensitivity. As noted above, the areas of agriculture, public health and medicine, and energy have been the least sensitive for U.S.-DPRK exchanges, from the perspectives of both countries.

The DPRK has also shown considerable interest in science, IT, management, economics, international law, trade, and English language training. There is strong interest in the United States in expanding U.S.-DPRK knowledge sharing on these issues. In the past, the DPRK seemed to consider these topics too politically sensitive to explore with U.S. partners. Kyung-Ae Park notes,

> North Korea's tendency to send delegations for social science training to politically friendly countries might be intended to minimize possible 'spiritual pollution' and to cope effectively with any politically sensitive incidents such as political defection. Although the U.S. has hosted the largest number of delegations, North Korea appears very cautious about exposing its social scientists to the U.S. for long-term training. Even when American institutions have organized and sponsored training programs, they have taken place in other countries, as was the case for the two legal training programs held in China.[150]

Park suggests that the DPRK is particularly wary about publicity regarding training in market economies, because "it could give the impression to the outside world that North Korea is pursing economic reform." The DPRK blames its economic hardships on conditions caused by "the collapse of the world socialist market, American economic sanctions and natural disasters,"[151] which helps to explain why it is reluctant to participate in economic exchanges held in the United States.

However, there are some signs that the present climate of heightened sensitivity might be on the verge of change. Some North Koreans now believe that even participants in a socialist planned economy should understand how a market economy functions so as to better conduct international trade.[152] This view might create the political space that the DPRK would need to seek training on market economies without implying that it intends to reform its own economic system.

Institutions involved in exchanges might reflect on the Science Engagement Consortium's decision to extol the value of scientific engagement in both countries as part of their work. Other groups might develop similar strategies of engaging U.S. policymakers on the benefits of academic exchanges with the DPRK in general and/or on their topic in particular. Those universities with strong records in exchanges with other countries are in a particularly good position to advocate for exchanges with the DPRK. Without some political investment in both countries, progress is unlikely.

Acting Together and On-the-Ground Coordination

The absence of a U.S. embassy in Pyongyang makes it considerably more difficult for U.S. practitioners to set up the networks of contacts inside the DPRK that could contribute to their educational exchange programs. An official on-site U.S. presence might be helpful for closing this gap. There is a precedent for this idea; during the 2008-2009 USAID-funded food program, a USAID Food for Peace officer was based in Pyongyang.[153] However, it is likely that this sort of presence would be possible only if U.S. government funding were provided for exchanges or if diplomatic relations were established. Neither seems likely to happen in the near future.

During the height of the famine, the lack of a resident NGO presence for U.S. and Canadian NGOs was addressed through the Food-Aid Liaison Unit (FALU), a non-governmental office attached to the World Food Programme office. FALU, the primary channel of communication for non-resident NGOs and their DPRK counterparts, was responsible for identifying the needs of the beneficiary populations and matching those needs with potential donors.[154]

Erich Weingartner, the first person to serve as head of FALU, has suggested that a "Liaison Unit for Knowledge Sharing" (LUKS) might play a similar role for institutions with no residential status inside the DPRK but that are engaged in educational exchanges. (LUKS might be connected with

UNDP rather than WFP.) However, as Weingartner himself points out, the task of "harmonizing" the motivations and practices of the external actors would be a formidable but necessary step in defining LUK's mission.[155] This obstacle would be present in any form, but the idea of on-site facilitation and coordination should not be abandoned.

Information Sharing within the Knowledge Sharing Community

Every gathering of practitioners ends with a discussion of the pros and cons of creating a database of existing activities or LISTSERV for sharing information—or, at the idea's grandest, forming a consortium. There are obvious benefits to be found in heightening levels of coordination and learning from the experiences of others. Since programming can become calcified, practitioners can become less innovative over time. Similarly, participants can benefit from jointly evaluating objectives and goals and discussing indicators of success, and time could usefully be spent on evaluating risks and pitfalls. For instance, although practitioners acknowledge that occasionally they must consider deviating from their initial plans in order to accommodate political and programmatic upheavals, seldom do they share with one another exactly how they assess the risks and benefits to be gained from such a deviation.

However, as noted above, publicity before an exchange can result in its cancellation, and too much publicity after an event can make it difficult to implement the next stage of a project. Anything in writing can be leaked, and so practitioners are wary of LISTSERVs and databases. Even conversations can be repeated. Furthermore, practitioners are in competition for limited funding, and at times they must compete for access to partners in the DPRK. Differentiation is an important element of organizational survival, which puts consortium and coordination efforts under considerable pressure, especially when DPRK signals to organizations can often seem opaque.

Moreover, there really is no single knowledge sharing community. According to one practitioner, "One reason why these consortia are difficult to organize is precisely because there are distinct communities with overlapping but still divergent objectives."[156]

So far, the most extensive information sharing has taken place at small meetings, when almost everyone present has been a stakeholder working with the DPRK. For the time being, this remains the most effective if also the least efficient means of sharing information.

It has become increasingly difficult to identify funding to host information sharing meetings, particularly those that involve practitioners from multiple countries. In addition, there has not yet been an international conference on academic exchanges, even though one could prove highly useful. Governments from countries with stellar programs might consider hosting such a conference, either in their own country or in China. Alternatively, the EU (which helped to sponsor small international conferences on humanitarian

aid and development in the DPRK in 2009 and 2010) might consider hosting a meeting solely focused on international exchanges, again in Europe or China. A European host would greatly increase the possibility of DPRK participation. North Koreans have not participated in such round-table discussions for a number of years, and have seldom taken part in multi-stakeholder discussion focused specifically on expanding academic exchanges with all countries. The DPRK's participation in a conference of this kind would allow for joint evaluation and planning.

Individual organizations should weigh the possibility of deliberately allocating part of their budgets to cover a portion of their travel expenses so as to enable such a meeting to take place. It would be far easier for future coordinators to raise the money for expenses directly related to the conference, without also raising funds for the considerable expense of international travel.

Conclusion

U.S.-DPRK educational exchanges are proceeding on a limited basis, if not flourishing. Knowledge is being shared in both directions, and North Koreans and Americans are learning about one another's countries. Training in a wide range of fields is taking place, particularly but not exclusively in the natural sciences. Capacity within the DPRK is expanding in many spheres, and DPRK counterparts are suggesting new areas of potential interaction. Organizations in the United States have skillfully and creatively established multiple means of promoting contact between students, professors, and researchers from the two countries. However, there are not yet any full-fledged academic exchange programs.

On the U.S. side, the U.S.- DPRK educational interactions have been initiated by either a U.S. university or a U.S. NGO. The sample is small in both cases, but particularly small in the first case, making it nearly impossible to draw general conclusions about university-initiated programs. However, at least one university-driven program has been able to establish an independent bilateral relationship with a DPRK university that has resulted in multiple trips to both the DPRK and U.S. institutions and academic exchanges between the two sides.

U.S. NGO-driven educational exchange programs have brought substantial academic expertise to the DPRK. The collaboration allows the U.S. educational institution to learn about the DPRK and helps it to decide its interest over the long term. NGOs have been successful in facilitating ongoing relationships between U.S. academics and DPRK educational institutions, particularly national research institutions. Eventually, the U.S. educational institution in a program may develop an independent relationship with the DPRK.

To date, however, NGO-initiated exchanges have not resulted in an

academic exchange program or an independent bilateral relationship between a U.S. university and a DPRK university. Yet such relationships may one day foster an academic exchange program. One practitioner noted that through collaboration with an NGO, his university was able to work with a number of different individuals and agencies in the DPRK. Over time, the university began to gain an identity separate from the NGO "as an academic institution interested in science training, joint research projects, and eventually degree programs for DPRK scientists."[157] Once this identity was established, communication began regarding the university's goals: the development of "quality science linkages," the short-term exchange of scientists, support of conferences and workshops, and ultimately the awarding of advanced degrees in agricultural sciences. The university has determined that it needs to develop a relationship with a different counterpart agency in the DPRK; the counterpart agencies associated with NGOs do not oversee relationships with academic institutions. This change in counterparts has been discussed and hopefully will be achieved. However, political tensions between the two countries have delayed progress on these initiatives.

Among the many ways of evaluating the engagement of U.S. colleges and universities in educational exchanges with the DPRK, at least three are relevant for evaluating U.S.-DPRK relations. The first is the provision of expertise. This has been a critical area for the involvement of U.S. academics and is generally well-received by DPRK counterparts. The collaboration between NGOs and universities has been rewarding for the individuals involved and has been an important component of NGO programming. For some U.S. academics, working directly with DPRK professionals in the field rather than academics at a university may be quite valuable: they are able to learn about the DPRK through discussion and interaction with the "end users" of their expertise, they can experience the direct impact of their work, and they can witness DPRK theory in practice.

A second way to measure the benefits of an educational exchange is based on the knowledge an academic is able to bring back to his or her institution or the ability of academics from the two countries to have genuine exchanges at an academic level. This might be in the U.S. academic's own field (e.g., new knowledge about how different varieties of crops fare in different regions of the DPRK, or an understanding of North Korean medical diagnosis methodology). At this stage, such knowledge could not be published independently without jeopardizing relationships with the DPRK. However, jointly authored papers have already been published, suggesting a potential area for further growth. For some U.S. academics, the current focus is on deepening their engagement and the sharing of information with their North Korean academic colleagues. While no publicity is involved, this is beneficial to the people involved.

A third measuring stick is the impact of the exchange program on the

university as a whole. According to one expert, "Increasingly, a key goal is 'campus internationalization,' which is measured quantitatively by the *number* of exchanges."[158] One professional in the field has a simple definition of a successful academic exchange program: "Traffic. Lots of multi-level traffic of students, professors and administrators back and forth, in both directions, between the two countries."[159] This should not be considered just a matter of numbers, however. Exchanges at this pace and at this level are as much an *indicator* of success as a *measurement* of it: high numbers signify that academic exchange can take place on a routine basis between individuals affiliated with the two academic institutions, without interruption caused by either external political circumstances or high-level intervention to meet the demands of complex bureaucratic or legal structures.[160] Clearly, it will be a long time before U.S.-DPRK academic exchange programs meet with such volume and regularity. U.S. universities have begun to narrow their focus to one or two counterpart universities in a given country in order to make those bilateral relationships as robust as possible; this narrowed focus may lend itself more naturally to the U.S.-DPRK context.[161]

Yet this is only one way of measuring the impact of a relationship on the university. Relationships between U.S. and DPRK academics or researchers can benefit the U.S. institution in a different respect: they can help to invigorate the institution's Korean or Asian studies program. As the U.S. team learns more about the DPRK, it can provide compelling glimpses into North Korean culture and society, and begin to replace conjecture with observations.

The field of U.S.-DPRK educational exchanges continues to evolve. Take, for example, the Pyongyang Project, which opened an office in Beijing in 2009. The project, through its delegations, brings students and professors to North Korea for two-week trips that "allow participants to explore the DPRK by interacting with North Korean locals and a combination of academic discussions, travel, and group bonding activities."[162] Participants can expect to interact with North Koreans in the DPRK in a "positive and academic group atmosphere" created through "friendship, bonding, and discussion." The project hopes to inaugurate THiNK—Transcending History in North Korea—an intensive Korean language summer study program for American students in Pyongyang. If the program commences in the summer of 2011 as planned, it will be the first study abroad program for Westerners in the DPRK.[163] The Pyongyang Project's mission is to forge "a new level of academic cooperation and cultural exchange between North Koreans and Westerners." Clearly the project is not yet an academic exchange program, but it is attempting to increase contact between U.S. students and professors and their counterparts in the DPRK. This type of creativity continues to foster new ways of thinking about U.S.-DPRK educational exchanges.

The barriers to a robust academic exchange program between the DPRK and United States have been enumerated in this chapter. To overcome these

barriers, what is most necessary is trust. One practitioner defines a successful program as one that generates "high-caliber educational exchanges involving significant research projects or serious degree-related study conducted in an atmosphere of *true mutuality* that contributes substantively to a two-way learning process."[164] The range of educational programs discussed in this chapter are building the foundations of that "true mutuality" while sharing knowledge and building relationships along the way. By sharing lessons and strategies with interested academic institutions, we hope that progress will be hastened and relationships will be built on a solid, sustainable foundation.

Notes

[1] The authors would like to thank Yeri Im, Fred Carriere and Stuart Thorson for their assistance.

[2] James A. Leach, 2010. "The Importance of Cultural Diplomacy," speech given at the Embassy of the Republic of Korea, Washington, DC, July 23, 2010, on the occasion of the celebration of the 60th Anniversary of the Fulbright Program in Korea, in Jai Ok Shim, James F. Larson, Frederick F. Carriere & Horace H. Underwood, *Fulbright in Korea's Future: A 60th Commemorative History* (Korea: Korean-American Educational Commission/Seoul Selection), 248–249.

[3] This chapter will not address, except in passing, "Track II dialogue," which is focused on security issues. However, some academic institutions are deeply involved in Track II dialogue and other host organizations can become inadvertently involved in Track II dialogue, as described below. For more information on Track II Dialogue and the DPRK, see M.J. Zuckerman, "Track II Diplomacy: Can Unofficial Talks Avert Disaster?" *The Carnegie Reporter* 3, no. 3 (Fall 2005), http://www.carnegie.org/reporter/11/trackii/index2.html; Alexander T.J. Lennon, "Why Do We Do Track Two? Transnational Security Policy Networks and U.S. Nuclear Nonproliferation Policy," and Karin J. Lee, "The DPRK and Track II Exchanges," *NCNK Newsletter* 1, no. 6, http://www.ncnk.org/resources/newsletter-content-items/ncnk-newsletter-vol-1-no-6-the-dprk-and-track-ii-exchanges.

[4] "Prospects for International Cooperation in Economic Development Knowledge Sharing with the DPRK" (report of a conference held in Seoul Korea, November 1–2, 2007), 4–5, accessed December 14, http://www.stanleyfoundation.org/publications/report/KnowledgeSharing308.pdf.

[5] Stuart J. Thorson et al., Chapter 2, 86. Chapter references in these notes refer to subsequent contributor chapters in this volume.

[6] Edward P. Reed, Chapter 3, 93.

[7] Randall Ireson, Chapter 4, 105. It can also be difficult to distinguish motivations and objectives; Ireson proposes objectives that overlap somewhat with these motivations. See Chapter 4 for more information.

[8] Personal communication, November 11, 2010.

[9] Personal communication, December 5, 2010.

[10] Matthew 2: 36,40. Christian Friends of Korea Website, accessed January 1, 2011, http://www.cfk.org.

[11] Wuna Reilly, "Educating for Peace on the Korean Peninsula," (paper presented

at conference "The Tasks of Peace Education in Asia and the Role of Religions," Seoul, Korea), accessed December 8, 2010, http://afsc.org/sites/afsc.civicactions.net/files/documents/Paper%20on%20education%20for%20peace1.pdf.

[12] Jin Park and Seung-Ho Jung, "Ten Years of Knowledge Partnership with North Korea," *Asian Perspective* 31, no. 2 (2007): 80, accessed December 20, 2010, http://www.asianperspective.org/articles/v31n2-d.pdf.

[13] A useful chart of exchanges between 2001 and 2007 can be found in Hyunjin Seo and Stuart Thorson, "Academic Science Exchange with North Korea," *KEI Academic Paper Series* 3 (2010): 111, accessed December 25, 2010, http://www.keia.org/Publications/AcademicPaperSeries/2009/APS-Seo_Thorson_Final.pdf.

[14] Ibid., 119.

[15] Personal communication, November 2010.

[16] Personal communication, November 2010.

[17] "Middle East Consortium on Infectious Disease Surveillance (MECIDS)," Global Health and Security website, accessed December 18, 2010, http://www.ghsi.org/projects/mecids.html.

[18] Louise Gresham, Assad Ramlawi, Julie Briski, Mariah Richardson and Terence Taylor, "Trust Across Borders: Responding to 2009 H1N1 Influenza in the Middle East," *Biosecurity and Bioterrorism: Biodefense Strategy, Practice and Science* 7, no. 4 (2009): 401.

[19] Professor David Kerr, University of Oxford website, accessed January 1, 2011, http://www.clinpharm.ox.ac.uk/profkerr.

[20] David Kerr, "Science Can Bridge National Divides," accessed December 17, http://www.guardian.co.uk/science/blog/2009/jun/22/science-diplomacy-obama-administration.

[21] Personal communication, November 11, 2010.

[22] Personal communication, November, 2010.

[23] Patrick G. Maddox and Anne F. Thurston, "Academic Exchanges: the Goals and Roles of U.S. Universities," in *Educational Exchanges: Essays on the Sino-American Experience*, ed. Joyce K. Kallgren and Denis Fred. Simon (Berkeley, CA: University of California, 1987), 119–148.

[24] Ibid., 138.

[25] The U.S.-DPRK equivalent might be the religious connections that predate the division of the Korean peninsula. For example, Ruth Bell Graham, mother of Samaritan's Purse president Franklin Graham, attended school in Pyongyang as a teenager, and two of the organizations working on TB in the DPRK, the Eugene Bell Foundation and Christian Friends of Korea, have nineteenth-century missionary roots in Korea.

[26] Personal communication, November 2010.

[27] Personal communication, January 31, 2011.

[28] Maddox and Thurston, "Academic Exchanges," 136.

[29] *The World Factbook*, accessed January 1, 2011, https://www.cia.gov/library/publications/the-world-factbook/geos/kn.html.

[30] 2008 Joint New Years Editorial, http://www.kcna.co.jp/item/2008/200801/news01/01.htm.

[31] Richard Madsen, "Institutional Dynamics of Cross-Cultural Communication: U.S.-China Exchanges in the Humanities and Social Sciences," in *Educational*

Exchanges: Essays on the Sino-American Experience, ed. Joyce K. Kallgren and Denis Fred. Simon (Berkeley, CA: University of California, 1987), 192.

[32] Ibid., 194–195.

[33] Personal communication, January 21, 2011.

[34] Kyung-Ae Park, "The Pattern of North Korea's Track-Two Foreign Contacts," North Pacific Policy Papers #5 (Vancouver: Program on Canada-Asia Policy Studies, Institute of Asian Research, University of British Columbia, 2000): 32.

[35] Ireson, Chapter 4, 106.

[36] David Austin, Chapter 7, 142; Reed, Chapter 3, 96.

[37] Some organizations, both NGOs and universities, have been successful at establishing regular communication, including ongoing clarification of priorities and objectives.

[38] James Haldeman, Chapter 1, 73

[39] Reed, Chapter 3, 97.

[40] Park, "North Korea's Track-Two Foreign Contacts," 36.

[41] Reed, Chapter 3, 100.

[42] Ireson, Chapter 4, 107.

[43] Reed, Chapter 3, 100.

[44] Personal Communication, State Department, December 21, 2010.

[45] The Bureau of Industry and Security in the U.S. Department of Commerce states on its website that "[a]n export of technology or source code (except encryption source code) is 'deemed' to take place when it is released to a foreign national within the United States. See §734.2(b)(2)(ii) of the Export Administration Regulations (EAR)…. Technology is 'released' for export when it is available to foreign nationals for visual inspection (such as reading technical specifications, plans, blueprints, etc.); when technology is exchanged orally; or when technology is made available by practice or application under the guidance of persons with knowledge of the technology." Accessed December 16, 2010, http://www.bis.doc.gov/deemedexports/deemedexportsfaqs.html#1.

[46] Thorson et al., Chapter 2, 87.

[47] Ibid.

[48] Holder, Attorney General, et al. v. Humanitarian Law Project et al., 08-1498 U.S. Reports 1 (2009)

[49] See, for example, "What Happens to a Charity After an FBI Raid," Case Study: Life & Relief and Development (LIFE) Charity and Security Network website, November 30, 2010, Accessed December 21, 2010, http://www.charityandsecurity.org/background/What_Happens_to_a_Charity_After_an_FBI_Raid.

[50] Personal communication, January 21, 2011.

[51] Randall Ireson, "The Knowledge Sharing Experience in Agriculture" November, 2007, accessed December 12, 2010, http://www.ncnk.org/resources/publications/Ireson_KS_paper_Nov_07.doc/file_view.

[52] Ibid., 2.

[53] Ireson, Chapter 4, 103, 107.

[54] Ireson, "Knowledge Sharing Experience," 1.

[55] Ireson, Chapter 4, 104.

[56] Ibid., 108.

[57] Pyongyang Business School website, accessed December 23, 2010, http://www.

business-school-pyongyang.org/objectives.html.

[58] John Everard, Chapter 6, 130–131. The following paragraphs are drawn from this chapter.

[59] Standards-based applications do not seem to have a negative impact on programs such as these, nor is a lack of qualified applicants in a given year an indicator of lack of interest. Other programs have continued and prospered with application procedures in place. See Park and Jung, “Ten Years,” 87.

[60] “The development of integrated pest management for Brassica crops in DPRK and its improvement in Australia,” accessed December 26, 2010, http://www.aciar.gov.au/project/HORT/2002/062.

[61] Omar Gharzeddine, “UNFPA Helps Plan and Monitor Successful DPRK Census,” accessed December 26, 2010, http://www.unfpa.org/public/site/global/lang/en/pid/5635.

[62] The Hong Kong University of Science and Technology, “Census Data Analyses Training Conducted for Democratic Peoples Republic of Korea at HKUST,” news release, January 2008, accessed December 26, 2010, http://www.ust.hk/eng/news/press_20080501-601.html; “North Korea Picks HKUST for Training,” *HKUST Newsletter* (Spring 2008), accessed December 26, 2010, http://newsletter.ust.hk/08/spring/en/10/index.html.

[63] “Millennium Development Goals and the DPRK,” UNDP website, accessed October 23, 2010, http://www.undp.org/dprk/mdgs.html.

[64] Park and Jung, “Ten Years,” 81.

[65] As Park notes, she categorized three of her case studies— numbers 18, 19, and 20—based on the location of their implementation rather than their key initiator and funders. If these are re-categorized as U.S. case studies, the number of legal programs in the U.S. increases by two—but the energy programs increase by 1, keeping the triad of medical, agricultural, and energy in the lead with 10 out of 16. The Nautilus Institute took an early role in promoting exchanges with the DPRK on energy, a role that it continues to play. Interestingly, the United States was host to the greatest number of exchanges in Park’s review.

[66] Park, “North Korea’s Track-Two Foreign Contacts,” 32.

[67] PUST opened unofficially in June 2010 with graduate classes taught by four teachers. The official opening took place in October, when classes began for 40 graduate students and 120 undergraduate students. The 21 resident teachers are from the U.S., the UK, the Netherlands, Canada, Germany, and China. See Richard Stone, “Pyongyang University and NK: Just Do IT!” 38th North, November 1, 2010, accessed December 20, 2010, http://38north.org/2010/11/pyongyang-university-and-nk-just-do-it; “DPRK-ROK Cooperation: PUST Officially Opens on October 25,” October 22, 2010; “ROK and DPRK cooperation school, PUST, opens on October 25,” accessed December 27, 2010, http://news.naver.com/main/read.nhn?mode=LSD&mid=sec&sid1=100&oid=001&aid=0004722033; “Le Monde introduces the first private school, PUST, in DPRK,” accessed December 27, 2010, http://www.asiatoday.co.kr/news/view.asp?seq=410935; “Teachers are going to PUST,” accessed December 27, 2010, http://www.ajnews.co.kr/view.jsp?newsId=20101023000167. Thanks to Hye Eun Kim for research on this topic.

[68] Park, “North Korea’s Track-Two Foreign Contacts,” 32.

[69] Ibid., 28.

[70] Ibid., 29–30. She also points to four defecting technocrats in 1997 and 1998 as a possible cause for the 1999 decrease; the length of study tours was shortened after the fourth defection.

[71] Park and Jung, "Ten Years," 80.

[72] For example, the "2007 USA Goodwill Tour of the North Korean National TaeKwonDo Demonstration Team," accessed July 1, 2008, http://www.usnktkd.com.

[73] Personal Communication, January 21, 2011.

[74] Park and Jung, "Ten Years," 80.

[75] Seo and Thorson, "Academic Science Exchange," 119.

[76] Park, "North Korea's Track-Two Foreign Contacts," 31.

[77] The material for the NGO studies is drawn primarily from resources found on the web. Because of a lack of written material, these case studies are comparatively shorter than the subsequent examples.

[78] "10,000 Trees in Flight to North Korea," March 13, 2000, accessed December 21, 2000, http://www.mercycorps.org/countries/northkorea/10052.

[79] Austin, Chapter 7, 141.

[80] Wu Na, "AFSC's Agricultural Program in the DPRK," September 8, 2008, *NCNK Newsletter* 1, no. 5, accessed December 21, 2010, http://www.ncnk.org/resources/newsletter-content-items/ncnk-newsletter-vol-1-number-5-afsc-s-agricultural-program-in-the-dprk.

[81] Ibid., 3.

[82] The "Initial Actions for the Implementation of the Joint Statement," was the outcome of the Six-Party Talks from February 8 through February 13. See http://www.ncnk.org/resources/publications/Feb_13_2007_Agreement.doc/file_view.

[83] The Bay Area TB Consortium is composed of tuberculosis specialists in the areas of epidemiology, medicine, and microbiology drawn from the area's university and public health institutions.

[84] Including the Director General of the #2 (Hepatitis) and #3 (TB) Departments, three central level tuberculosis physicians, and a representative of the Korea-American Private Exchange Society.

[85] Sharon Perry, Chapter 5, 123. Much of the information in the following paragraphs is drawn primarily from this chapter.

[86] Ibid.

[87] Ibid., and Sharon Perry, "The DPRK National TB Reference: Laboratory Project: A Mighty Task," in Christian Friends of Korea *December 2009 Activity Report*, 3. Accessed December 23, 2010, http://www.cfk.org/Newsletters/2009%20December/Dec2009AR-4.pdf.

[88] "About CFK," on the Christian Friends of Korea website, accessed December 23, 2010, http://www.cfk.org/About%20Page/AboutCFK_.htm.

[89] Perry, Chapter 5, 124.

[90] In the first half of 2009, North Korean counterparts working on TB put their priorities in the following order: (1) the National Lab; (2) TB medicine; and (3) nutritional food. CFK "June 2009 Newsletter," 3, accessed December 23, http://www.cfk.org/Newsletters/2009 June/Final CFK-2.pdf.

[91] Ibid., 4.

[92] Ibid., 5.

[93] Ibid, 5.

[94] Reed, Chapter 3, 93. The following paragraphs are drawn from this chapter.

[95] Ibid.

[96] Ibid., 94.

[97] To read more about TAF's "Books in Asia" program in the DPRK, see Edward Reed, "Bridges Built of Books," NCNK Newsletter 1, no. 3, (April 22, 2008), http://www.ncnk.org/resources/newsletter-content-items/ncnk-newsletter-vol-1-no-3-bridges-built-of-books.

[98] Haldeman, Chapter 1, 71–72. The following paragraphs are drawn from this chapter.

[99] Ibid., 73.

[100] Ibid., 73–74.

[101] Ibid., 78.

[102] Thorson et al., Chapter 2, 82. The following paragraphs are drawn largely from this chapter.

[103] Ibid., 81.

[104] See note 14.

[105] Thorson et al., Chapter 2, 83.

[106] Ibid.

[107] Ibid., 82.

[108] Ibid., 83.

[109] Ibid., 83.

[110] Seo and Thorson, "Academic Science Exchange," 114.

[111] Ibid., pp. 115-116 and Stuart Thorson and Frederick F. Carriere, "Dark Horse," *NCNK Newsletter* 1, no. 2 (March 2007), accessed December 25, 2010, http://www.ncnk.org/resources/newsletter-content-items/ncnk-newsletter-vol-1-2-dark-horse.

[112] Linda Staheli, Chapter 8, 153. The following paragraphs are drawn from this chapter.

[113] Ibid., 148.

[114] For more information on the British Council, see http://www.britishcouncil.org/new/about-us/how-we-are-run/folder_how-we-are-run/who-we-are/.

[115] Ireson, Chapter 4, 111; Reed, Chapter 3, 97.

[116] In 2001 Kim Jong-il declared, "Ours is an era in which science and technology which show startlingly rapid progress. Resting on our laurels or marking time in this regard will prevent us from boosting our economy. Because we are in the 2000s now, we must solve all problems through a new way of thinking and by scaling to new heights." See Kim Jong-il, "21st Century Is Century of Great Change and Creation," *Rondong Sinmun*, Jan. 4. Posted on the People's Korea website with the following comment: "On Jan. 4, 'Rodong Sinmun,' organ of the Workers' Party of Korea, carried Kim Jong-il's remarks exhorting the people to bring about radical transformations in the fields of economy, science and technology with new thinking and a refreshed mindset. The following are the part of the remarks which refers to economic innovation." Accessed December 18, 2010, http://www1.korea-np.co.jp/pk/154th_issue/2001012503.htm.

[117] Reed, Chapter 3, 98.

[118] Reed, Chapter 3, 98; Ireson, Chapter 4, 113.

[119] Ireson, Chapter 4, 113.

[120] Personal communication, November 3, 2010.

[121] Personal communication, December 5, 2010.

[122] Haldeman, Chapter 1, 74–74.

[123] See David Austin, "Value of Apples."

[124] The Academy of Agricultural Sciences can award MS and PhD degrees and can therefore be considered a legitimate academic partner for U.S. educational institutions. However, there is an incomplete understanding in the United States about the relationship of the AAS to DPRK universities.

[125] Personal communication, February 3, 2011.

[126] Ireson, Chapter 4, 109–110.

[127] Ibid., 110.

[128] Personal communication, January 31, 2011 (Person A).

[129] This chapter has not discussed the unique experiences of knowledge sharing activities led solely by Korean Americans. Korean American-led teams have been very successful in some knowledge sharing activities, particularly in the medical field. However, since such agencies have not yet taken a lead role in academic exchange programs, no Korean American institution was included as a case study.

[130] Ireson, Chapter 4, 112.

[131] Ibid., 114.

[132] Seo and Thorson, 119.

[133] Ibid.

[134] Thorson et al., Chapter 2, 85–85.

[135] Personal communication, November, 2010.

[136] Personal communication, December 30, 2010.

[137] Park and Jung, "Ten Years," 86.

[138] Thomas R. Pickering and Peter Agre, "Science diplomacy aids conflict reduction," *San Diego Union Tribune*, February 20, 2010, accessed December 19, http://www.signonsandiego.com/news/2010/feb/20/science-diplomacy-aids-conflict-reduction.

[139] "Alexander Downer Sought Aid Ban," *The Australian*, December 22, 2010, accessed December 28, 2010, http://www.theaustralian.com.au/in-depth/wikileaks/alexander-downer-sought-north-korea-aid-ban/story-fn775xjq-1225974731601. Thank you to Hye Eun Kim for calling this to our attention.

[140] Des Houghton. "North Koreans banned from Asia-Pacific Triennial," December7, 2009, accessed January 10, 2011, http://www.couriermail.com.au/news/breaking-news/north-koreans-banned-from-asia-pacific-triennial/story-e6freonf-1225807817039.

[141] Ireson, Chapter 4, 116.

[142] *Choson Exchange* website, "Our Team," accessed December 28, 2010, http://chosonexchange.org/?page_id=4.

[143] "The mission of the OpenCourseWare Consortium is to advance formal and informal learning through the worldwide sharing and use of free, open, high-quality education materials organized as courses." For more information, see http://ocw.mit.edu/about/ocw-consortium/.

[144] See Geoffrey, "Lessons from Introducing OpenCourseWare in North Korea," December 26, 2010, accessed December 28, 2010, http://chosonexchange.org/?p=658.

[145] Choson Exchange Facebook Page, accessed January 16, 2011, http://www.

facebook.com/pages/Choson-Exchange/389787149749?filter=3.

[146] "U.S. Policy Toward the Korean Peninsula," Council on Foreign Relations, Independent Task Force Report No. 64 (2010), Charles L. Pritchard and John H. Tilelli Jr., Chairs, Scott A. Snyder, 50.

[147] Personal communication, November 2010.

[148] For example, see Lee Jong Moo's proposals for NGO collaborative efforts in "International and South Korean NGOs' Assistance to North Korea and Cooperation Measures," November 2010, http://www.ncnk.org/resources/news-items/2010-conference-on-humanitarian-and-development-assistance-to-the-dprk/.

[149] See Park and Jung, "Ten Years," 86–87.

[150] Park, "North Korea's Track-Two Foreign Contacts," 36.

[151] Park, "North Korea's Track-Two Foreign Contacts," 30.

[152] Personal communication, Pyongyang, September 2010.

[153] "Single Year Assistance Program (SYAP) FY 2008 Results Report, Korean American Food Assistance Program (K-A FAP)," 3, accessed December 28, 2010, http://pdf.usaid.gov/pdf_docs/PDACQ494.pdf.

[154] Erich Weingartner, "Towards a Liaison Unit for Knowledge Sharing in Pyongyang," November 2007, 2, accessed December 28, 2010, http://www.ncnk.org/resources/publications/Weingartner_KS_Paper_Nov_07.doc/file_view.

[155] Ibid., 1.

[156] Personal communication, January 21, 2011.

[157] Personal communication, September 10, 2010.

[158] Personal communication, January 31, 2011 (Person B).

[159] Sang S. Kim, Personal communication, January 24, 2011.

[160] Frederick Carriere, Personal communication, February 3, 2011.

[161] Personal communication, January 31, 2011 (Person B).

[162] See http://www.pyongyangproject.org/programs/delegations.html.

[163] See http://www.pyongyangproject.org/programs/think.html.

[164] Frederick F. Carriere, personal communication, January 30, 2011, emphasis not in original.